

Energy Levels and Observed Spectral Lines of Neutral and Singly Ionized Titanium, Ti I and Ti II

E. B. Saloman

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Energy Levels and Observed Spectral Lines of Neutral and Singly Ionized Titanium, Ti I and Ti II

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The energy levels and observed spectral lines of neutral and singly ionized titanium atoms have been compiled. Tables of energy levels and spectral lines are generated for each stage. Experimental g-factors and leading percentages are included when available. An experimental value for the ionization energy for each stage is provided. © 2012 by the U.S. Secretary of Commerce on behalf of the United States. All rights reserved. [doi: 10.1063/1.3656882]

Key words: compilation; critically evaluated data; energy levels; Ti; titanium; singly ionized titanium; observed spectral lines; spectra.

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1. Introduction

1.1. Discussion

In 1949, Moore [49MOO] published a compilation of the energy levels of neutral titanium and some of its ions. This work was updated by Sugar and Corliss [85SUG/COR] in 1985. In 1968, Striganov and Sventitskii [68STR/SVE] presented a compilation of titanium lines. Since these compilations were completed, additional measurements of neutral and singly ionized Ti were made at much higher resolution using Fourier Transform Spectrometers. This work leads to more precise values of the energy levels and many more classified lines.

The collection of lines and preliminary energy levels for neutral titanium was completed in November 2009. The collection for singly ionized titanium was completed in March 2010.

Only experimentally derived energy levels are used. We tabulate only those lines that have wavelengths consistent with differences in the tabulated levels. Decisions are made about which of several possible classifications to include by calculating the respective transition probabilities with the Cowan code [81COW]. As a result of this process, in a few cases the line classifications may differ from those given in the stated references. The coupling scheme used to describe the levels is usually LS coupling, also known as Russell-Saunders coupling [81COW], except for some levels in neutral titanium that are described using pair coupling [81COW].

The final energy levels are determined by means of a least squares adjustment of preliminary levels using the observed spectral lines.

For the first ionization energy, we try to provide the best available experimental values. We do not average experimental values by different authors.

All energy levels are given in customary units of cm^{-1} and all wavelengths in units of \AA (0.1 nm). As reported in Mohr *et al.* [07MOH/TAY], the unit cm^{-1} is related to the SI unit for energy, the joule, by $1 \text{ cm}^{-1} = (1.986445501 \pm 0.000000099) \times 10^{-23} \text{ J}$. Ionization energies are provided

in both cm^{-1} and eV. We use the conversion factor $(8065.54465 \pm 0.00020) \text{ cm}^{-1}/\text{eV}$ as determined by Mohr *et al.* [07MOH/TAY].

Although often difficult to ascertain, uncertainties in the referenced publication of energy levels and lines are likely 1σ values. In many cases, only the number of decimal places indicates the uncertainty in the quoted values. We generally use a “rule of 20” whereby an uncertainty of greater than 20 in the least significant digit serves as the criterion for dropping that digit.

The text for each ion does not attempt to provide a complete review of all work on that stage of ionization. Rather, it intends to credit the major contributions, especially those from which values are included in the line and level tables.

1.2. References for section 1

- 49MOO C. E. Moore, *Atomic Energy Levels Vol. I, Natl. Bur. Std. (U.S.) Circ. No. 467* (U.S. Government Printing Office, Washington, D.C., 1949).
- 68STR/SVE A. R. Striganov and N. S. Sventitskii, *Tables of Spectral Lines of Neutral and Ionized Atoms* (IFI/Plenum, New York, 1968).
- 81COW R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).
- 85SUG/COR J. Sugar and C. Corliss, *J. Phys. Chem. Ref. Data* **14**, Suppl. 2 (1985).
- 07MOH/TAY P. J. Mohr, B. N. Taylor, and D. B. Newell, *The 2006 CODATA Recommended Values of the Fundamental Physical Constants* (Web Version 5.2). This database was developed by J. Baker, M. Douma, and S. Kotochigova. Available: <http://physics.nist.gov/constants> [July 13, 2009] (National Institute of Standards and Technology, Gaithersburg, MD 20899, 2007).

2. Explanation of Tables of Compiled Levels and Lines

2.1. Discussion

In the Energy Level Tables, the first column provides the energy level in units of cm^{-1} . The values have been rounded using the “rule of 20.” The second column gives the uncertainty of the energy level. The third column provides the parity of the energy level; “0” signifies even parity and “1” signifies odd parity. The next three columns specify the configuration, term, and J value of the level. The seventh column provides the magnetic Landé g-factor of the level (when known). When the information is available (as a result of calculations), we provide under the heading “Leading percentages” the eigenvector percentage composition of the level. We first give the percentage of the basis state used to name the level. Then we give that of the next highest basis state (or in some cases the highest) along with the classifica-

tion of this basis state. Note that in some cases if the next highest is only a few percent, it is not specified in the source and so it is not included here. Note that when there are many terms with the same designation, in order to easily distinguish between them, we use “a” for the lowest energy even parity term and “b,” “c,” etc. for the next lowest ones. For odd parity terms, we use “z” for the lowest with “y,” “x,” etc. for the next lowest ones. The use of seniority numbers in configuration and term designations follows the conventions of Nielson and Koster [63NIE/KOS].

In the Line Tables wave numbers between 5000 cm^{-1} and $50\,000 \text{ cm}^{-1}$ (wavelengths between approximately 2000 \AA and $20\,000 \text{ \AA}$) are in air. All others are vacuum wavelengths. The first column is the observed wavelength in angstroms (\AA). The second column is the vacuum wave number corresponding to the observed wavelength. The wave numbers are provided in units of cm^{-1} . The conversion between air wavelengths and vacuum wavelengths and wave numbers is made using the three-term formula given in Eq. (3) of Peck and Reeder [72PEC/REE]. The quoted wavelength uncertainties do not include the uncertainty in the vacuum to air conversion of wavelengths. The wave number values are rounded to the appropriate number of significant digits using the “rule of 20.” The third column is the relative intensity assigned to the line. Some authors use an intensity of “0” to indicate an intensity somewhat less than one (but not zero intensity). An intensity of “00” is used to indicate an even smaller intensity. This system is maintained in this compilation. Also included here are codes which are defined for each ion. The next six columns specify the classification of the transition responsible for the line by providing the configuration, term, and J value first for the lower level and then for the upper level. The next-to-last column is an estimate of the uncertainty in the wavelength of the observed line. The last column identifies the source of the observed line. Some transitions may appear to be forbidden as listed (e.g., two-electron transitions) but are allowed since the designation of the levels often only specifies the leading component of a mixed level (see the energy level tables).

2.2. References for section 2

- 63NIE/KOS C. W. Nielson and G. F. Koster, *Spectroscopic Coefficients for the p'' , d'' , and f'' Configurations* (MIT, Cambridge, MA, 1963).
- 72PEC/REE E. R. Peck and K. Reeder, *J. Opt. Soc. Am.* **62**, 958 (1972).

3. Tables of Energy Levels and Observed Lines of Neutral Titanium, Ti I

3.1. Discussion

Ground state $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2 4s^2 a^3 F_2$
 Ionization energy $55\,072.5 \text{ cm}^{-1} \pm 0.1 \text{ cm}^{-1}$ ($6.828\,12 \text{ eV} \pm 0.00001 \text{ eV}$) [07MAT/HAS]

The energy levels of neutral titanium, Ti I, were compiled by Sugar and Corliss [85SUG/COR] based largely on the

work of Kiess [23KIE/KIE], [24KIE], [28KIE], [32MEG/KIE], [59KIE/THE], Russell [27RUS1], Wilson and Thekackara [61WIL/THE], and Smith and Sidall [69SMI/SID]. Recent measurements of the spectrum of Ti I by Forsberg [91FOR] and Litzén [05LIT] have added a great many new lines to those previously determined. The preliminary levels for this fit (Table 1) were obtained from the work of Forsberg [91FOR] and Litzén [05LIT].

Matsuoka and Hasegawa [07MAT/HAS] used two color resonance ionization spectroscopy measurements to determine the energy levels of the Rydberg and autoionizing series of Ti I. Levels with $n = 13$ up to $n = 55$ were reported. These levels are not included in our levels table since no line wavelengths were reported.

The natural isotope composition of titanium is 73.72(3) % Ti^{48} , 8.25(3) % Ti^{46} , 7.44(2) % Ti^{47} , 5.41(2) % Ti^{49} , and 5.18(2) % Ti^{50} [05COU/SCH].

In the energy level table (Table 1), most levels are designated using LS coupling. Pair coupling is used for the 4*f* and 5*g* levels.

The observed spectral lines of Ti I are compiled from 12 sources [09KIL], [20KIE/MEG], [27RUS1], [27RUS2], [28KIE], [32MEG/KIE], [38KIE], [61WIL/THE], [64GIU/THE], [91FOR], [98ALL/GAR], [05LIT]. The sources used in this compilation are summarized in Table 2 (Sources of Ti I lines). We only include observed lines. Table 2 specifies the reference from which the lines were obtained, the number of classifications that apply to lines from this reference, the light source used to produce the lines and the spectrometer used to observe them, the wavelength range from which lines from this reference are included in the table of lines, and the range of uncertainties for these lines in the lines table (Table 3).

In the reported results from Forsberg [91FOR], values of some wavelengths are reported for a given spectral line measured by both grating/photographic measurements and Fourier transform spectroscopy (FTS). We use the provided FTS results for the wavelength but use the intensities from the grating/photographic measurements since they are more numerous in the spectral region involved (3000 Å to 3813 Å). Strong, saturated lines are given the intensity “>15” (greater than 15).

Schierle and Thorne [95SCH/THO] reported about 22 Ti I lines from an inductively coupled plasma source. Their average absolute deviation from the wavelengths reported by Forsberg [91FOR] was about 0.04 cm^{-1} with a systematic shift of about 0.019 cm^{-1} for wave numbers between $22\,053 \text{ cm}^{-1}$ and $38\,883 \text{ cm}^{-1}$. However, Forsberg’s results are consistent with those of Litzén [05LIT], so we use their values in this compilation.

The priority in our choice of lines which appear in more than one reference is in general specified as follows:

[05LIT] over [91FOR] over [98ALL/GAR] over [64GIU/THE] over [61WIL/THE] over [28KIE] over [38KIE] over [32MEG/KIE] and finally ([09KIL], [20KIE/MEG], [27RUS1], [27RUS2]).

Lines from several other references [09CON/CHE], [95RAM/SOL], [88BRO/GIN] were superseded by those from the above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Ti I levels. Only classifiable lines are included in our compilation. Other lines are listed in the references but are not included since we cannot be sure that they are from Ti I when they do not fit the known levels.

Transition probability calculations using the Cowan codes [81COW] were used to help resolve choices between multiple possible classifications of lines.

Intensities have been taken from the stated sources and therefore are not on a common scale.

The intensity codes given in the Ti I line table are taken from the specified sources. Their meaning is stated below:

Code	Definition
b	Band head
bl	Blended
h	Hazy
m	Masked
q	Asymmetric
r	Self reversed
u	Unsymmetrical
*	Multiply classified line (two or more classifications of this line share the same intensity)

Once the classified line list was complete, a least squares adjustment of the energy levels was made using a modified version of the level optimization program ELCALC [69RAD]. This is an iterative procedure that minimizes the differences between the observed wave numbers and those predicted from the optimized level values. In the first iteration, the lines are weighted according to the inverse square of the uncertainties of their wave numbers. For succeeding iterations, the weight assigned to each line in determining a given level is recalculated based on both the uncertainty of the wave number and the uncertainty determined for the combining level of opposite parity in the previous iteration. Following Forsberg [91FOR], 84 lines noted as being asymmetric were removed from the fit since their wavelengths were somewhat uncertain.

The values of g_J and the leading percentages included in the level table for even parity levels were compiled by Sugar and Corliss [85SUG/COR] except g_J for the lowest three levels of the ground configuration, a 3F , which were taken from Channappa and Pendlebury [65CHA/PEN]. The values of g_J and the leading percentages included in the level table for odd parity levels were those calculated by Roth [82ROT] except for the $41039.870 \text{ cm}^{-1}$ level which Roth lists as 100% $3d^3(^2H)4p \ y^1H_5^o$. It cannot be 100% pure since he lists the $34700.215 \text{ cm}^{-1}$ $3d^3(^2G)4p \ z^1H_5^o$ level as having 21% mix of the $3d^3(^2H)4p \ y^1H_5^o$. A Cowan code calculation indicates the $41039.870 \text{ cm}^{-1}$ level is about 52% $y^1H_5^o$ and 40% $z^1H_5^o$.

The ionization energy was obtained by Matsuoka and Hasegawa [07MAT/HAS] by resonance ionization spectroscopy measurements of several Ti I series of levels.

Collection of lines and levels was completed in November 2009.

TABLE I. Energy levels of Ti I

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages			
0.000	0.002	0	3d ² 4s ²	a ³ F	2	0.666	100			
170.1328	0.0019	0	3d ² 4s ²	a ³ F	3	1.083	100			
386.874	0.002	0	3d ² 4s ²	a ³ F	4	1.250	100			
7255.355	0.003	0	3d ² 4s ²	a ¹ D	2	1.02	96			
8436.618	0.004	0	3d ² 4s ²	a ³ P	0		92	7	3d ³ (² P)4s	³ P
8492.422	0.002	0	3d ² 4s ²	a ³ P	1	1.50	92	7	3d ³ (² P)4s	³ P
8602.3441	0.0019	0	3d ² 4s ²	a ³ P	2	1.49	90	7	3d ³ (² P)4s	³ P
12118.393	0.003	0	3d ² 4s ²	a ¹ G	4	0.98	90	8	3d ³ (² G)4s	¹ G
6556.833	0.003	0	3d ³ (⁴ F)4s	a ⁵ F	1	0.00	100			
6598.765	0.003	0	3d ³ (⁴ F)4s	a ⁵ F	2	0.99	100			
6661.006	0.002	0	3d ³ (⁴ F)4s	a ⁵ F	3	1.25	100			
6742.756	0.002	0	3d ³ (⁴ F)4s	a ⁵ F	4	1.35	100			
6842.962	0.003	0	3d ³ (⁴ F)4s	a ⁵ F	5	1.41	100			
11531.761	0.002	0	3d ³ (⁴ F)4s	b ³ F	2	0.67	100			
11639.8109	0.0019	0	3d ³ (⁴ F)4s	b ³ F	3	1.08	100			
11776.812	0.002	0	3d ³ (⁴ F)4s	b ³ F	4	1.26	98			
13981.773	0.003	0	3d ³ (⁴ P)4s	a ⁵ P	1	2.50	100			
14028.436	0.003	0	3d ³ (⁴ P)4s	a ⁵ P	2	1.82	100			
14105.634	0.003	0	3d ³ (⁴ P)4s	a ⁵ P	3	1.66	100			
15108.111	0.002	0	3d ³ (² G)4s	a ³ G	3	0.74	100			
15156.802	0.002	0	3d ³ (² G)4s	a ³ G	4	1.06	100			
15220.393	0.003	0	3d ³ (² G)4s	a ³ G	5	1.21	100			
17369.529	0.003	0	3d ³ (² D)4s	a ³ D	1	0.49	67	30	3d ³ (² D1)4s	³ D
17423.856	0.002	0	3d ³ (² D)4s	a ³ D	2	1.17	67	30	3d ³ (² D1)4s	³ D
17540.188	0.002	0	3d ³ (² D)4s	a ³ D	3	1.34	67	30	3d ³ (² D1)4s	³ D
17995.487	0.004	0	3d ³ (² P)4s	b ³ P	0		86	7	3d ² 4s ²	³ P
18037.213	0.003	0	3d ³ (² H)4s	a ³ H	4	0.80	52	44	3d ³ (² G)4s	¹ G
18061.387	0.002	0	3d ³ (² P)4s	b ³ P	1		87	7	3d ² 4s ²	³ P
18141.265	0.004	0	3d ³ (² H)4s	a ³ H	5	1.02	100			
18145.286	0.002	0	3d ³ (² P)4s	b ³ P	2		87	7	3d ² 4s ²	³ P
18192.570	0.004	0	3d ³ (² H)4s	a ³ H	6	1.17	100			
18287.554	0.003	0	3d ³ (² G)4s	b ¹ G	4	1.02	48	48	3d ³ (² H)4s	³ H
18818.099	0.004	0	3d ³ (⁴ P)4s	c ³ P	0		94	5	3d ³ (² P)4s	³ P
18825.782	0.003	0	3d ³ (⁴ P)4s	c ³ P	1		94			
18911.394	0.003	0	3d ³ (⁴ P)4s	c ³ P	2	1.54	98			
20062.886	0.004	0	3d ³ (² P)4s	a ¹ P	1	1.03	98			
20209.447	0.003	0	3d ³ (² D)4s	b ¹ D	2	1.01	67	30	3d ³ (² D1)4s	¹ D
20795.603	0.005	0	3d ³ (² H)4s	a ¹ H	5	1.01	100			
25037.405	0.005	0	3d ³ (² F)4s	³ F	4					
25068.842	0.003	0	3d ³ (² F)4s	³ F	3					
25092.958	0.004	0	3d ³ (² F)4s	³ F	2					
27498.172	0.005	0	3d ³ (² F)4s	¹ F	3					
32514.566	0.004	0	3d ³ (² D1)4s	³ D	3					
32539.905	0.004	0	3d ³ (² D1)4s	³ D	2					
32557.419	0.005	0	3d ³ (² D1)4s	³ D	1					
41671.567	0.010	0	3d ³ (² D1)4s	¹ D	2					
15877.081	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.336	100			
15975.631	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.921	100			
16106.076	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	1.152	100			
16267.480	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	1.258	100			
16458.671	0.004	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	1.333	100			
16817.160	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	0.001	96			
16875.124	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	1.001	95			
16961.442	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	1.251	97			
17075.258	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	1.346	98			
17215.390	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	1.401	99			
18462.722	0.007	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0		95			
18482.774	0.004	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	1.497	95			
18525.059	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	1.496	94			
18593.947	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	1.496	95			
18695.134	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	1.495	95			
19322.984	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.669	87	10	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
19421.580	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	1.087	88	9	3d ² (³ P)4s4p(³ P ^o)	³ D ^o

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages			
19 573.974	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	1.252	88	9	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
19 937.855	0.005	1	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.502	85	7	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
20 006.039	0.004	1	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	1.168	86	8	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
20 126.062	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	1.334	85	7	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
21 469.488	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.758	96			
21 588.495	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	1.052	95			
21 739.707	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	1.206	95			
22 081.189	0.004	1	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	1.000	88	9	3d ² (³ P)4s4p(³ P ^o)	¹ D ^o
22 404.739	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.996	98			
24 694.892	0.003	1	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	1.006	96			
24 921.117	0.004	1	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	1.982	91	7	3d ³ (² P)4p	³ S ^o
25 102.875	0.003	1	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	1.852	95			
25 107.411	0.003	1	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.670	48	24	3d ³ (⁴ F)4p	³ F ^o
25 227.222	0.003	1	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	1.081	46	22	3d ³ (⁴ F)4p	³ F ^o
25 388.331	0.003	1	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	1.240	42	25	3d ² (¹ D)4s4p(³ P ^o)	³ F ^o
25 493.733	0.003	1	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	1.652	52	25	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o
25 537.286	0.004	1	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	1.478	63	28	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o
25 574.908	0.005	1	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0		51	34	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o
25 612.388	0.006	1	3d ² (³ P)4s4p(³ P ^o)	³ D ^o	0		61	30	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o
25 635.725	0.004	1	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	1.437	65	23	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o
25 699.987	0.005	1	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	1.375	72	18	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o
25 797.595	0.004	1	3d ² (³ P)4s4p(³ P ^o)	³ D ^o	3	1.452	75	10	3d ³ (⁴ F)4p	³ D ^o
25 926.771	0.005	1	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	1.498	86	7	3d ³ (⁴ F)4p	⁵ D ^o
26 803.420	0.003	1	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.675	57	21	3d ² (³ F)4s4p(¹ P ^o)	³ F ^o
26 892.936	0.003	1	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	1.092	60	22	3d ² (³ F)4s4p(¹ P ^o)	³ F ^o
27 025.659	0.003	1	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	1.254	59	20	3d ² (³ F)4s4p(¹ P ^o)	³ F ^o
27 355.061	0.004	1	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.531	79	12	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
27 418.029	0.003	1	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	1.237	75	11	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
27 480.066	0.003	1	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	1.402	72	13	3d ² (³ P)4s4p(³ P ^o)	³ D ^o
27 498.982	0.004	1	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.754	50	23	3d ³ (⁴ F)4p	³ G ^o
27 614.679	0.003	1	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	1.054	49	24	3d ³ (⁴ F)4p	³ G ^o
27 665.401	0.006	1	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	1	2.460	95			
27 740.238	0.005	1	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	1.743	93			
27 750.135	0.003	1	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	1.206	49	24	3d ³ (⁴ F)4p	³ G ^o
27 887.803	0.004	1	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	1.574	83	12	3d ² (¹ D)4s4p(³ P ^o)	³ D ^o
27 907.013	0.004	1	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	1.003	39	24	3d4s ² 4p	¹ D ^o
29 661.250	0.004	1	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.508	39	22	3d ³ (⁴ F)4p	³ D ^o
29 768.675	0.003	1	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	1.167	41	24	3d ³ (⁴ F)4p	³ D ^o
29 912.286	0.003	1	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	1.338	42	26	3d ³ (⁴ F)4p	³ D ^o
29 914.737	0.003	1	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.753	76	18	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o
29 971.086	0.004	1	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	1.089	74	17	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o
30 039.170	0.004	1	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	1.201	75	16	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o
31 184.010	0.003	1	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.502	79	15	3d ² (¹ D)4s4p(³ P ^o)	³ D ^o
31 190.669	0.003	1	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	1.169	77	16	3d ² (¹ D)4s4p(³ P ^o)	³ D ^o
31 206.007	0.004	1	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	1.334	77	14	3d ² (¹ D)4s4p(³ P ^o)	³ D ^o
31 685.825	0.006	1	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	0		86	7	3d ³ (² P)4p	³ P ^o
31 725.605	0.004	1	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	1.497	87	7	3d ³ (² P)4p	³ P ^o
31 805.758	0.007	1	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	2	1.498	86	8	3d ³ (² P)4p	³ P ^o
31 829.969	0.007	1	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	4	0.803	84	12	3d ³ (² G)4p	³ H ^o
31 914.291	0.006	1	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	5	1.036	85	11	3d ³ (² G)4p	³ H ^o
32 013.544	0.007	1	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	6	1.169	85	12	3d ³ (² G)4p	³ H ^o
32 857.723	0.005	1	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.998	48	34	3d ³ (² G)4p	¹ F ^o
33 660.652	0.010	1	3d ² (¹ D)4s4p(¹ P ^o)	z ¹ P ^o	1	1.101	39	28	3d ² (³ P)4s4p(³ P ^o)	¹ P ^o
33 980.653	0.004	1	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.664	82	9	3d4s ² 4p	³ F ^o
34 078.606	0.003	1	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	1.085	83	9	3d4s ² 4p	³ F ^o
34 204.985	0.004	1	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	1.252	83	10	3d4s ² 4p	³ F ^o
34 947.116	0.006	1	3d ² (³ P)4s4p(³ P ^o)	y ¹ P ^o	1	1.031	59	20	3d ² (¹ D)4s4p(¹ P ^o)	¹ P ^o
35 035.137	0.006	1	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	1.003	61	14	3d ² (³ F)4s4p(³ P ^o)	¹ D ^o
35 439.251	0.004	1	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	1.935	64	34	3d ³ (⁴ P)4p	³ S ^o
36 000.148	0.005	1	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	1.000	49	30	3d ³ (² G)4p	¹ G ^o
37 851.802	0.005	1	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.516	47	26	3d ³ (² P)4p	³ D ^o
37 976.589	0.004	1	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	1.162	46	24	3d ³ (² P)4p	³ D ^o
38 159.461	0.004	1	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	1.331	48	23	3d ³ (² P)4p	³ D ^o
44 163.232	0.009	1	3d ² (¹ G)4s4p(¹ P ^o)	x ¹ H ^o	5	1.000	73	20	3d ³ (² H)4p	¹ H ^o

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages				
45 040.849	0.011	1	3d ² 4s(² P)4p	³ P ^o	0						
45 090.509	0.008	1	3d ² 4s(² P)4p	³ P ^o	1						
45 177.966	0.009	1	3d ² 4s(² P)4p	³ P ^o	2						
25 317.814	0.003	1	3d ³ (⁴ F)4p	y ³ D ^o	1	0.542	51	36	3d ² (³ F)4s4p(¹ P ^o)	³ D ^o	
25 438.908	0.003	1	3d ³ (⁴ F)4p	y ³ D ^o	2	1.283	37	32	3d ² (¹ D)4s4p(³ P ^o)	³ D ^o	
25 643.701	0.003	1	3d ³ (⁴ F)4p	y ³ D ^o	3	1.362	36	34	3d ² (¹ D)4s4p(³ P ^o)	³ D ^o	
26 494.330	0.004	1	3d ³ (⁴ F)4p	y ⁵ G ^o	2	0.337	96				
26 564.400	0.004	1	3d ³ (⁴ F)4p	y ⁵ G ^o	3	0.917	96				
26 657.416	0.004	1	3d ³ (⁴ F)4p	y ⁵ G ^o	4	1.151	98				
26 772.968	0.004	1	3d ³ (⁴ F)4p	y ⁵ G ^o	5	1.267	100				
26 910.709	0.005	1	3d ³ (⁴ F)4p	y ⁵ G ^o	6	1.333	100				
28 596.313	0.004	1	3d ³ (⁴ F)4p	y ⁵ F ^o	1	0.001	96				
28 638.841	0.003	1	3d ³ (⁴ F)4p	y ⁵ F ^o	2	1.001	98				
28 702.778	0.003	1	3d ³ (⁴ F)4p	y ⁵ F ^o	3	1.249	98				
28 788.380	0.003	1	3d ³ (⁴ F)4p	y ⁵ F ^o	4	1.348	97				
28 896.059	0.005	1	3d ³ (⁴ F)4p	y ⁵ F ^o	5	1.401	97				
29 829.112	0.006	1	3d ³ (⁴ F)4p	x ⁵ D ^o	0		94				
29 855.255	0.004	1	3d ³ (⁴ F)4p	x ⁵ D ^o	1	1.498	87	8	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	
29 907.286	0.004	1	3d ³ (⁴ F)4p	x ⁵ D ^o	2	1.497	86	9	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	
29 986.199	0.003	1	3d ³ (⁴ F)4p	x ⁵ D ^o	3	1.496	75	10	3d ² (³ F)4s4p(¹ P ^o)	³ D ^o	
30 060.340	0.003	1	3d ³ (⁴ F)4p	x ⁵ D ^o	4	1.462	88	7	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	
31 373.807	0.003	1	3d ³ (⁴ F)4p	w ³ G ^o	3	0.752	72	19	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o	
31 489.476	0.003	1	3d ³ (⁴ F)4p	w ³ G ^o	4	1.052	71	21	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o	
31 628.688	0.004	1	3d ³ (⁴ F)4p	w ³ G ^o	5	1.202	73	20	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o	
33 085.151	0.006	1	3d ³ (⁴ P)4p	x ³ P ^o	0		38	29	3d ² (³ P)4s4p(¹ P ^o)	³ P ^o	
33 090.497	0.004	1	3d ³ (⁴ P)4p	x ³ P ^o	1	1.469	39	25	3d ² (³ P)4s4p(¹ P ^o)	³ P ^o	
33 114.420	0.004	1	3d ³ (⁴ P)4p	x ³ P ^o	2	1.498	38	29	3d ² (³ P)4s4p(¹ P ^o)	³ P ^o	
33 655.869	0.004	1	3d ³ (⁴ P)4p	w ³ F ^o	2	0.669	58	31	3d ² (³ F)4s4p(¹ P ^o)	³ F ^o	
33 680.248	0.004	1	3d ³ (⁴ P)4p	w ³ F ^o	3	1.086	56	29	3d ² (³ F)4s4p(¹ P ^o)	³ F ^o	
33 700.884	0.005	1	3d ³ (⁴ P)4p	w ³ F ^o	4	1.254	59	28	3d ² (³ F)4s4p(¹ P ^o)	³ F ^o	
34 700.215	0.005	1	3d ³ (² G)4p	z ¹ H ^o	5	1.001	62	21	3d ³ (² H)4p	¹ H ^o	
35 454.052	0.006	1	3d ³ (² G)4p	y ³ H ^o	4	0.803	85	12	3d ² (¹ G)4s4p(³ P ^o)	³ H ^o	
35 503.399	0.014	1	3d ³ (⁴ P)4p	w ⁵ D ^o	0		97				
35 527.748	0.008	1	3d ³ (⁴ P)4p	w ⁵ D ^o	1	1.498	98				
35 559.648	0.005	1	3d ³ (² G)4p	y ³ H ^o	5	1.035	84	13	3d ² (¹ G)4s4p(³ P ^o)	³ H ^o	
35 577.086	0.008	1	3d ³ (⁴ P)4p	w ⁵ D ^o	2	1.499	98				
35 652.900	0.005	1	3d ³ (⁴ P)4p	w ⁵ D ^o	3	1.500	98				
35 685.174	0.007	1	3d ³ (² G)4p	y ³ H ^o	6	1.168	85	12	3d ² (¹ G)4s4p(³ P ^o)	³ H ^o	
35 757.394	0.007	1	3d ³ (⁴ P)4p	w ⁵ D ^o	4	1.500	99				
36 298.427	0.005	1	3d ³ (⁴ P)4p	y ⁵ P ^o	1	2.486	96				
36 340.673	0.005	1	3d ³ (⁴ P)4p	y ⁵ P ^o	2	1.827	97				
36 414.531	0.006	1	3d ³ (⁴ P)4p	y ⁵ P ^o	3	1.665	97				
37 090.413	0.007	1	3d ³ (² D)4p	w ³ P ^o	0		47	31	3d ³ (⁴ P)4p	³ P ^o	
37 172.989	0.005	1	3d ³ (² D)4p	w ³ P ^o	1	1.508	45	32	3d ³ (⁴ P)4p	³ P ^o	
37 325.410	0.005	1	3d ³ (² D)4p	w ³ P ^o	2	1.503	46	35	3d ³ (⁴ P)4p	³ P ^o	
37 359.203	0.005	1	3d ³ (⁴ P)4p	y ⁵ S ^o	2	1.999	93				
37 555.058	0.004	1	3d ³ (² G)4p	v ³ G ^o	3	0.769	78	10	3d ² (¹ G)4s4p(³ P ^o)	³ G ^o	
37 617.894	0.004	1	3d ³ (² G)4p	v ³ G ^o	4	1.075	80	9	3d ² (¹ G)4s4p(³ P ^o)	³ G ^o	
37 654.690	0.006	1	3d ³ (² D)4p	u ³ F ^o	2	0.667	51	28	3d ³ (² G)4p	³ F ^o	
37 690.327	0.004	1	3d ³ (² G)4p	v ³ G ^o	5	1.198	81	8	3d ² (¹ G)4s4p(³ P ^o)	³ G ^o	
37 743.962	0.004	1	3d ³ (² D)4p	u ³ F ^o	3	1.078	47	27	3d ³ (² G)4p	³ F ^o	
37 852.437	0.004	1	3d ³ (² D)4p	u ³ F ^o	4	1.231	45	28	3d ³ (² G)4p	³ F ^o	
38 451.309	0.004	1	3d ³ (² G)4p	t ³ F ^o	2	0.675	59	27	3d ³ (² D)4p	³ F ^o	
38 544.316	0.005	1	3d ³ (² G)4p	t ³ F ^o	3	1.086	58	26	3d ³ (² D)4p	³ F ^o	
38 572.699	0.006	1	3d ³ (² H)4p	z ³ I ^o	5	0.834	100				
38 654.068	0.004	1	3d ³ (² P)4p	t ³ D ^o	1	0.522	45	24	3d4s ² 4p	³ D ^o	
38 668.887	0.008	1	3d ³ (² H)4p	z ³ I ^o	6	1.024	100				
38 670.723	0.004	1	3d ³ (² G)4p	t ³ F ^o	4	1.250	58	29	3d ³ (² D)4p	³ F ^o	
38 699.805	0.005	1	3d ³ (² P)4p	t ³ D ^o	2	1.167	47	22	3d4s ² 4p	³ D ^o	
38 764.844	0.005	1	3d ³ (² P)4p	t ³ D ^o	3	1.328	45	26	3d4s ² 4p	³ D ^o	
38 779.856	0.009	1	3d ³ (² H)4p	z ³ I ^o	7	1.143	100				
38 959.507	0.005	1	3d ³ (² G)4p	x ¹ G ^o	4	1.001	57	27	3d ³ (² H)4p	¹ G ^o	
39 077.753	0.005	1	3d ³ (² D)4p	x ¹ P ^o	1	0.981	74	14	3d ³ (² P)4p	¹ P ^o	

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages				
39 115.957	0.005	1	3d ³ (² H)4p	x ³ H ^o	4	0.804	93				
39 152.103	0.005	1	3d ³ (² H)4p	x ³ H ^o	5	1.035	84	13	3d ² (¹ G)4s4p(³ P ^o)	³ H ^o	
39 198.323	0.006	1	3d ³ (² H)4p	x ³ H ^o	6	1.167	85	10	3d ² (¹ G)4s4p(³ P ^o)	³ H ^o	
39 662.081	0.005	1	3d ³ (² D)4p	s ³ D ^o	1	0.506	62	17	3d ³ (² P)4p	³ D ^o	
39 685.964	0.005	1	3d ³ (² D)4p	s ³ D ^o	2	1.168	63	16	3d ³ (² P)4p	³ D ^o	
39 715.439	0.005	1	3d ³ (² D)4p	s ³ D ^o	3	1.327	62	18	3d ³ (² P)4p	³ D ^o	
40 302.957	0.006	1	3d ³ (² D)4p	w ¹ F ^o	3	1.008	84	8	3d ² (¹ D)4s4p(¹ P ^o)	¹ F ^o	
40 319.829	0.012	1	3d ³ (² H)4p	z ¹ I ^o	6	1.000	100				
40 556.014	0.005	1	3d ³ (⁴ P)4p	r ³ D ^o	1	0.501	52	27	3d ³ (² D)4p	³ D ^o	
40 670.509	0.005	1	3d ³ (⁴ P)4p	r ³ D ^o	2	1.113	51	28	3d ³ (² D)4p	³ D ^o	
40 844.05	0.02	1	3d ³ (² P)4p	x ³ S ^o	1	1.998	62	15	3d4s ² 4p	³ P ^o	
40 844.151	0.007	1	3d ³ (⁴ P)4p	r ³ D ^o	3	1.265	53	29	3d ³ (² D)4p	³ D ^o	
41 039.870	0.006	1	3d ³ (² H)4p	y ¹ H ^o	5	1.007	52	40	3d ³ (² G)4p	¹ H ^o	
41 170.006	0.005	1	3d ³ (² H)4p	³ G ^o	3	0.752	88	7	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o	
41 255.481	0.005	1	3d ³ (² H)4p	³ G ^o	4	1.051	89	8	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o	
41 341.543	0.008	1	3d ³ (² H)4p	³ G ^o	5	1.498	90	7	3d ² (³ F)4s4p(¹ P ^o)	³ G ^o	
41 584.908	0.007	1	3d ³ (² G)4p	v ¹ F ^o	3	1.008	48	29	3d ² (¹ D)4s4p(¹ P ^o)	¹ F ^o	
41 928.526	0.009	1	3d ³ (² P)4p	u ³ P ^o	2	1.498	41	28	3d ³ (² D)4p	³ P ^o	
41 943.884	0.006	1	3d ³ (² P)4p	u ³ P ^o	1	1.497	44	31	3d ³ (² D)4p	³ P ^o	
41 959.293	0.010	1	3d ³ (² P)4p	u ³ P ^o	0		42	32	3d ³ (² D)4p	³ P ^o	
42 927.337	0.007	1	3d ³ (² P)4p	¹ D ^o	2	1.001	41	19	3d4s ² 4p	¹ D ^o	
43 799.471	0.007	1	3d ³ (² D)4p	u ¹ D ^o	2	1.002	45	26	3d ² (¹ D)4s4p(¹ P ^o)	¹ D ^o	
46 360.447	0.009	1	3d ³ (² P)4p	¹ P ^o	1						
46 725.398	0.012	1	3d ³ (² F)4p	³ G ^o	3	0.756	86	10	3d ³ (² F)4p	³ F ^o	
46 837.984	0.006	1	3d ³ (² F)4p	³ G ^o	4	1.054	85	11	3d ³ (² F)4p	³ F ^o	
47 022.337	0.007	1	3d ³ (² F)4p	³ G ^o	5	1.203	97				
47 187.507	0.009	1	3d ³ (² F)4p	p ³ F ^o	2	0.668	94				
47 281.887	0.009	1	3d ³ (² F)4p	p ³ F ^o	3	1.078	83	11	3d ³ (² F)4p	³ G ^o	
47 463.135	0.008	1	3d ³ (² F)4p	p ³ F ^o	4	1.243	84	12	3d ³ (² F)4p	³ G ^o	
48 364.925	0.009	1	3d ³ (² F)4p	u ¹ F ^o	3	1.003	53	24	3d4s ² 4p	¹ F ^o	
28 772.736	0.007	0	3d ⁴	a ⁵ D	0		100				
28 791.519	0.004	0	3d ⁴	a ⁵ D	1		100				
28 828.429	0.004	0	3d ⁴	a ⁵ D	2		100				
28 882.368	0.004	0	3d ⁴	a ⁵ D	3		100				
28 951.972	0.005	0	3d ⁴	a ⁵ D	4		100				
34 219.338	0.006	0	3d ⁴	³ P2	0		56	41	3d ⁴	³ P1	
34 327.836	0.005	0	3d ⁴	³ P2	1		56	41	3d ⁴	³ P1	
34 534.987	0.004	0	3d ⁴	³ P2	2		56	41	3d ⁴	³ P1	
35 123.425	0.003	0	3d ⁴	³ F2	2						
35 174.502	0.003	0	3d ⁴	³ F2	3						
35 242.198	0.004	0	3d ⁴	³ F2	4						
35 345.555	0.004	0	3d ⁴	³ H	4						
35 400.235	0.004	0	3d ⁴	³ H	5						
35 469.497	0.005	0	3d ⁴	³ H	6						
36 065.466	0.003	0	3d ⁴	b ³ G	3		100				
36 132.283	0.003	0	3d ⁴	b ³ G	4		100				
36 200.732	0.005	0	3d ⁴	b ³ G	5		100				
38 476.084	0.006	0	3d ⁴	³ D	2						
38 476.615	0.005	0	3d ⁴	³ D	3						
38 481.773	0.007	0	3d ⁴	³ D	1						
38 527.359	0.006	0	3d ⁴	¹ G2	4						
42 957.092	0.003	0	3d ⁴	³ F1	2						
42 965.9148	0.0018	0	3d ⁴	³ F1	3						
43 009.4937	0.0017	0	3d ⁴	³ F1	4						
43 411.059	0.007	0	3d ⁴	¹ F	3						
44 651.328	0.003	0	3d ⁴	³ P1	2						
34 496.77	0.03	0	3d ³ 4d	¹ D	2						
43 592.1203	0.0019	0	3d ³ (⁴ F)4d	⁵ G	2						
43 636.5388	0.0015	0	3d ³ (⁴ F)4d	⁵ G	3						
43 699.0187	0.0014	0	3d ³ (⁴ F)4d	⁵ G	4						
43 781.8353	0.0013	0	3d ³ (⁴ F)4d	⁵ G	5						
43 843.741	0.002	0	3d ³ (⁴ F)4d	f ³ H	3						
43 875.514	0.003	0	3d ³ (⁴ F)4d	⁵ F	1						

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages				
43 888.0708	0.0014	0	3d ³ (⁴ F)4d	⁵ G	6						
43 901.6548	0.0015	0	3d ³ (⁴ F)4d	f ⁵ H	4	0.91					
43 914.0450	0.0017	0	3d ³ (⁴ F)4d	⁵ F	2						
43 969.6460	0.0015	0	3d ³ (⁴ F)4d	⁵ F	3						
43 971.5467	0.0016	0	3d ³ (⁴ F)4d	f ⁵ H	5	1.11					
43 980.372	0.002	0	3d ³ 4d	⁵ P	2						
44 040.0941	0.0013	0	3d ³ (⁴ F)4d	⁵ F	4						
44 051.3351	0.0017	0	3d ³ (⁴ F)4d	f ⁵ H	6	1.21					
44 110.592	0.002	0	3d ³ 4d	⁵ P	3						
44 122.9818	0.0015	0	3d ³ (⁴ F)4d	⁵ F	5						
44 134.658	0.004	0	3d ³ (⁴ F)4d	f ⁵ H	7	1.29					
35 959.109	0.003	0	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.00					
36 013.597	0.003	0	3d ² 4s(⁴ F)5s	e ⁵ F	2						
36 096.542	0.003	0	3d ² 4s(⁴ F)5s	e ⁵ F	3	1.24					
36 208.929	0.003	0	3d ² 4s(⁴ F)5s	e ⁵ F	4	1.34					
36 351.365	0.003	0	3d ² 4s(⁴ F)5s	e ⁵ F	5	1.42					
37 538.862	0.003	0	3d ² 4s(⁴ F)5s	e ³ F	2	0.67					
37 659.992	0.003	0	3d ² 4s(⁴ F)5s	e ³ F	3	1.11					
37 824.758	0.003	0	3d ² 4s(⁴ F)5s	e ³ F	4	1.27					
41 087.404	0.004	0	3d ² 4s(⁴ F)5s	e ¹ F	3	1.01					
41 194.378	0.005	0	3d ² 4s(² F)5s	³ F	2						
41 368.996	0.003	0	3d ² 4s(² F)5s	³ F	3						
41 481.207	0.004	0	3d ² 4s(² F)5s	³ F	4						
45 093.226	0.006	0	3d ² 4s(² D)5s	³ D	1						
45 097.323	0.007	0	3d ² 4s(² D)5s	³ D	2						
45 102.381	0.008	0	3d ² 4s(² D)5s	³ D	3						
46 613.001	0.006	0	3d ² 4s(² D)5s	¹ D	2						
37 622.575	0.009	1	3d4s ² 4p	x ¹ F ^o	3	0.989	46	22	3d ² (¹ G)4s4p(¹ P ^o)	¹ F ^o	
39 265.818	0.007	1	3d4s ² 4p	w ¹ D ^o	2	1.006	41	28	3d ³ (² P)4p	¹ D ^o	
40 369.532	0.011	1	3d4s ² 4p	v ³ P ^o	0		46	27	3d ² (³ P)4s4p(¹ P ^o)	³ P ^o	
40 384.497	0.006	1	3d4s ² 4p	v ³ P ^o	1	1.496	45	28	3d ² (³ P)4s4p(¹ P ^o)	³ P ^o	
40 466.987	0.006	1	3d4s ² 4p	v ³ P ^o	2	1.495	46	27	3d ² (³ P)4s4p(¹ P ^o)	³ P ^o	
41 337.748	0.006	1	3d4s ² 4p	s ³ F ^o	2	0.668	61	21	3d ³ (² D2)4p	³ F ^o	
41 457.639	0.005	1	3d4s ² 4p	s ³ F ^o	3	1.146	64	18	3d ³ (² D2)4p	³ F ^o	
41 624.219	0.006	1	3d4s ² 4p	s ³ F ^o	4	1.250	63	15	3d ³ (² D2)4p	³ F ^o	
42 146.348	0.005	1	3d4s ² 4p	q ³ D ^o	1	0.510	42	24	3d ² (³ P)4s4p(¹ P ^o)	³ D ^o	
42 206.755	0.005	1	3d4s ² 4p	q ³ D ^o	2	1.163	40	19	3d ² (³ P)4s4p(¹ P ^o)	³ D ^o	
42 311.264	0.005	1	3d4s ² 4p	q ³ D ^o	3	1.332	49	21	3d ³ (² F)4p	³ D ^o	
39 107.060	0.005	0	3d ³ (⁴ F)5s	f ⁵ F	1						
39 149.280	0.004	0	3d ³ (⁴ F)5s	f ⁵ F	2						
39 214.362	0.003	0	3d ³ (⁴ F)5s	f ³ F	3						
39 302.506	0.004	0	3d ³ (⁴ F)5s	f ³ F	4						
39 412.846	0.004	0	3d ³ (⁴ F)5s	f ⁵ F	5						
39 526.912	0.003	0	3d ³ (⁴ F)5s	f ³ F	2						
39 641.021	0.002	0	3d ³ (⁴ F)5s	f ³ F	3						
39 785.923	0.003	0	3d ³ (⁴ F)5s	f ³ F	4						
47 954.025	0.007	0	3d ³ (² G)5s	¹ G	4						
41 689.272	0.007	1	3d ² 4s(⁴ F)5p	⁵ G ^o	2						
41 756.880	0.007	1	3d ² 4s(⁴ F)5p	⁵ G ^o	3						
41 847.686	0.005	1	3d ² 4s(⁴ F)5p	⁵ G ^o	4						
41 853.813	0.007	1	3d ² 4s(⁴ F)5p	⁵ F ^o	1						
41 906.402	0.005	1	3d ² 4s(⁴ F)5p	⁵ F ^o	2						
41 962.232	0.007	1	3d ² 4s(⁴ F)5p	⁵ G ^o	5						
41 985.701	0.010	1	3d ² 4s(⁴ F)5p	⁵ F ^o	3						
42 092.236	0.006	1	3d ² 4s(⁴ F)5p	⁵ F ^o	4						
42 100.717	0.008	1	3d ² 4s(⁴ F)5p	⁵ G ^o	6						
42 152.472	0.009	1	3d ² 4s(⁴ F)5p	⁵ D ^o	0						
42 193.949	0.004	1	3d ² 4s(⁴ F)5p	⁵ D ^o	1						
42 225.880	0.006	1	3d ² 4s(⁴ F)5p	⁵ F ^o	5						
42 269.727	0.007	1	3d ² 4s(⁴ F)5p	⁵ D ^o	2						
42 376.495	0.006	1	3d ² 4s(⁴ F)5p	⁵ D ^o	3						
42 505.322	0.009	1	3d ² 4s(⁴ F)5p	⁵ D ^o	4						

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages
43 467.537	0.005	1	3d ² 4s(4F)5p	r 3F ^o	2		
43 583.355	0.004	1	3d ² 4s(4F)5p	r 3F ^o	3		
43 744.793	0.005	1	3d ² 4s(4F)5p	r 3F ^o	4		
43 975.715	0.008	1	3d ² 4s(4F)5p	o 3D ^o	1		
44 079.761	0.006	1	3d ² 4s(4F)5p	o 3D ^o	2		
44 155.596	0.005	1	3d ² 4s(4F)5p	3G ^o	3		
44 233.620	0.006	1	3d ² 4s(4F)5p	o 3D ^o	3		
44 257.098	0.004	1	3d ² 4s(4F)5p	3G ^o	4		
44 375.500	0.006	1	3d ² 4s(4F)5p	3G ^o	5		
46 257.548	0.009	1	3d ² 4s(2F)5p	u 1G ^o	4		
48 460.59	0.03	1	3d ² 4s(2F)5p	3F ^o	2		
48 542.31	0.02	1	3d ² 4s(2F)5p	3G ^o	3		
48 629.67	0.04	1	3d ² 4s(2F)5p	3F ^o	3		
48 684.340	0.008	1	3d ² 4s(2F)5p	3G ^o	4		
48 774.39	0.03	1	3d ² 4s(2F)5p	3F ^o	4		
48 874.86	0.03	1	3d ² 4s(2F)5p	3G ^o	5		
49 080.327	0.018	1	3d ² 4s(2F)5p	3D ^o	1		
49 099.463	0.012	1	3d ² 4s(2F)5p	3D ^o	2		
49 150.329	0.011	1	3d ² 4s(2F)5p	3D ^o	3		
41 714.4115	0.0015	0	3d ² 4s(4F)4d	e 5G	2		
41 757.529	0.002	0	3d ² 4s(4F)4d	e 5G	3		
41 818.8088	0.0013	0	3d ² 4s(4F)4d	e 5G	4	1.12	
41 823.2130	0.0015	0	3d ² 4s(4F)4d	e 5H	3		
41 867.7812	0.0014	0	3d ² 4s(4F)4d	3G	3		
41 871.365	0.005	0	3d ² 4s(4F)4d	e 5D	0		
41 871.8642	0.0017	0	3d ² 4s(4F)4d	g 3F	2		
41 901.3771	0.0015	0	3d ² 4s(4F)4d	e 5D	1		
41 903.4757	0.0015	0	3d ² 4s(4F)4d	e 5G	5	1.24	
41 917.1924	0.0012	0	3d ² 4s(4F)4d	e 5H	4		
41 958.4833	0.0013	0	3d ² 4s(4F)4d	e 5D	2		
41 975.4249	0.0015	0	3d ² 4s(4F)4d	3G	4		
41 988.5259	0.0012	0	3d ² 4s(4F)4d	g 3F	3		
42 017.9751	0.0011	0	3d ² 4s(4F)4d	e 5H	5	1.15	
42 019.1293	0.0013	0	3d ² 4s(4F)4d	e 5G	6	1.34	
42 052.7717	0.0012	0	3d ² 4s(4F)4d	e 5D	3		
42 107.0545	0.0009	0	3d ² 4s(4F)4d	g 3F	4		
42 123.7378	0.0013	0	3d ² 4s(4F)4d	e 5H	6	1.22	
42 169.6496	0.0013	0	3d ² 4s(4F)4d	3G	5		
42 184.6261	0.0010	0	3d ² 4s(4F)4d	e 5D	4		
42 190.8217	0.0019	0	3d ² 4s4d	3P	1		
42 205.377	0.002	0	3d ² 4s(4F)4d	e 5H	7	1.28	
42 214.7689	0.0011	0	3d ² 4s(4F)4d	3H	4		
42 366.7719	0.0012	0	3d ² 4s4d	3P	2		
42 368.0934	0.0012	0	3d ² 4s(4F)4d	3H	5		
42 530.2894	0.0016	0	3d ² 4s(4F)4d	3H	6		
42 611.4510	0.0017	0	3d ² 4s(4F)4d	e 5P	1		
42 654.3674	0.0015	0	3d ² 4s(4F)4d	3D	1		
42 723.9855	0.0013	0	3d ² 4s(4F)4d	e 5P	2		
42 770.1745	0.0014	0	3d ² 4s(4F)4d	3D	2		
42 858.7661	0.0013	0	3d ² 4s(4F)4d	e 5P	3	1.64	
42 906.2727	0.0017	0	3d ² 4s(4F)4d	3D	3		
43 033.933	0.002	0	3d ² 4s(4F)4d	g 5F	1		
43 080.9622	0.0013	0	3d ² 4s(4F)4d	g 5F	2		
43 148.1922	0.0011	0	3d ² 4s(4F)4d	g 5F	3		
43 231.9903	0.0011	0	3d ² 4s(4F)4d	g 5F	4		
43 330.0066	0.0012	0	3d ² 4s(4F)4d	g 5F	5		
45 403.556	0.005	0	3d ² 4s(2F)4d	3G	3		
45 498.815	0.006	0	3d ² 4s(2F)4d	3G	4		
45 630.180	0.006	0	3d ² 4s(2F)4d	3G	5		
45 721.863	0.006	0	3d ² 4s(2F)4d	f 3H	4	0.80	
45 777.275	0.008	0	3d ² 4s(2F)4d	3F	2		
45 832.546	0.006	0	3d ² 4s(2F)4d	f 3H	5	1.03	
45 837.698	0.007	0	3d ² 4s(2F)4d	3F	3		

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages
45 931.013	0.010	0	3d ² 4s(2F)4d	³ F	4		
45 960.432	0.008	0	3d ² 4s(2F)4d	f ³ H	6	1.17	
46 067.923	0.006	0	3d ² 4s(2F)4d	e ¹ G	4		
46 650.398	0.011	0	3d ² 4s(2F)4d	f ¹ F	3		
43 814.152	0.010	1	3d ³ (4F)5p	⁵ G ^o	2		
43 868.255	0.009	1	3d ³ (4F)5p	⁵ G ^o	3		
43 940.689	0.007	1	3d ³ (4F)5p	⁵ G ^o	4		
44 031.244	0.009	1	3d ³ (4F)5p	⁵ G ^o	5		
44 139.772	0.012	1	3d ³ (4F)5p	⁵ G ^o	6		
44 182.898	0.010	1	3d ³ (4F)5p	⁵ F ^o	1		
44 222.420	0.011	1	3d ³ (4F)5p	⁵ F ^o	2		
44 284.231	0.007	1	3d ³ (4F)5p	⁵ F ^o	3		
44 302.058	0.011	1	3d ³ (4F)5p	⁵ D ^o	0		
44 331.489	0.009	1	3d ³ (4F)5p	⁵ D ^o	1		
44 369.406	0.009	1	3d ³ (4F)5p	⁵ F ^o	4		
44 389.317	0.008	1	3d ³ (4F)5p	⁵ D ^o	2		
44 473.347	0.009	1	3d ³ (4F)5p	⁵ D ^o	3		
44 477.256	0.007	1	3d ³ (4F)5p	⁵ F ^o	5		
44 577.664	0.009	1	3d ³ (4F)5p	⁵ D ^o	4		
44 834.642	0.003	1	3d ³ (4F)5p	³ F ^o	2		
44 857.879	0.009	1	3d ³ (4F)4p	w ³ S ^o	1		
44 922.979	0.007	1	3d ³ (4F)5p	³ F ^o	3		
44 966.527	0.020	1	3d ³ (4F)5p	n ³ D ^o	1		
45 001.681	0.006	1	3d ³ (4F)5p	³ G ^o	3		
45 040.955	0.006	1	3d ³ (4F)5p	³ F ^o	4		
45 063.941	0.018	1	3d ³ (4F)5p	n ³ D ^o	2		
45 097.711	0.008	1	3d ³ (4F)5p	³ G ^o	4		
45 206.499	0.015	1	3d ³ (4F)5p	n ³ D ^o	3		
45 211.603	0.006	1	3d ³ (4F)5p	³ G ^o	5		
45 764.562	0.006	0	3d ² 4s(4F)6s	h ⁵ F	1		
45 812.935	0.004	0	3d ² 4s(4F)6s	h ⁵ F	2		
45 893.192	0.005	0	3d ² 4s(4F)6s	h ⁵ F	3		
46 007.545	0.005	0	3d ² 4s(4F)6s	h ³ F	4		
46 157.719	0.005	0	3d ² 4s(4F)6s	h ⁵ F	5		
46 943.911	0.006	0	3d ² 4p ²	g ⁵ G	2		
47 030.230	0.009	0	3d ² 4p ²	g ⁵ G	3		
47 139.735	0.006	0	3d ² 4p ²	g ⁵ G	4		
47 280.588	0.006	0	3d ² 4p ²	g ⁵ G	5		
47 446.684	0.012	0	3d ² 4p ²	g ⁵ G	6		
48 048.339	0.010	0	3d ² 4p ²	⁵ F	1		
48 107.432	0.009	0	3d ² 4p ²	⁵ F	2		
48 208.887	0.009	0	3d ² 4p ²	⁵ F	3		
48 328.747	0.009	0	3d ² 4p ²	⁵ F	4		
48 461.967	0.010	0	3d ² 4p ²	⁵ F	5		
48 724.302	0.011	0	3d ² 4p ²	e ³ D	2		
48 724.955	0.011	0	3d ² 4p ²	e ³ D	1		
48 802.300	0.013	0	3d ² 4p ²	h ³ D	0		
48 839.708	0.007	0	3d ² 4p ²	e ³ D	3		
48 859.350	0.008	0	3d ² 4p ²	h ⁵ D	1		
48 915.035	0.011	0	3d ² 4p ²	h ³ D	2		
49 024.376	0.011	0	3d ² 4p ²	h ⁵ D	3		
49 036.389	0.007	0	3d ² 4p ²	h ⁵ D	4		
47 840.36	0.03	0	3d ² 4s(4F)5d	g ⁵ H	3		
47 870.47	0.02	0	3d ² 4s(4F)5d	h ⁵ G	2		
47 913.55	0.02	0	3d ² 4s(4F)5d	g ⁵ H	4		
47 936.73	0.03	0	3d ² 4s(4F)5d	h ⁵ G	3		
47 994.377	0.007	0	3d ² 4s(4F)5d	g ⁵ H	5		
48 018.093	0.011	0	3d ² 4s(4F)5d	h ⁵ G	4		
48 106.659	0.009	0	3d ² 4s(4F)5d	g ⁵ H	6		
48 119.335	0.013	0	3d ² 4s(4F)5d	h ⁵ G	5		
48 233.380	0.008	0	3d ² 4s(4F)5d	h ⁵ G	6		
48 262.705	0.009	0	3d ² 4s(4F)5d	g ⁵ H	7		

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages
48 458.006	0.017	0	3d ² 4s(4F)5d	⁵ F	1		
48 509.938	0.018	0	3d ² 4s(4F)5d	⁵ F	2		
48 588.258	0.011	0	3d ² 4s(4F)5d	⁵ F	3		
48 672.566	0.013	0	3d ² 4s(4F)5d	⁵ F	4		
48 771.606	0.008	0	3d ² 4s(4F)5d	⁵ F	5		
47 997.9976	0.0016	1	3d ² 4s(4F _{3/2})4f	[3.5] ^o	3		
48 002.3702	0.0015	1	3d ² 4s(4F _{3/2})4f	[3.5] ^o	4		
48 008.1086	0.0016	1	3d ² 4s(4F _{3/2})4f	[4.5] ^o	4		
48 010.3965	0.0013	1	3d ² 4s(4F _{3/2})4f	[2.5] ^o	3		
48 010.5835	0.0019	1	3d ² 4s(4F _{3/2})4f	[2.5] ^o	2		
48 012.3158	0.0013	1	3d ² 4s(4F _{3/2})4f	[4.5] ^o	5		
48 013.041	0.003	1	3d ² 4s(4F _{3/2})4f	[1.5] ^o	1		
48 015.1480	0.0015	1	3d ² 4s(4F _{3/2})4f	[1.5] ^o	2		
48 097.5899	0.0014	1	3d ² 4s(4F _{5/2})4f	[2.5] ^o	2		
48 098.0439	0.0014	1	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4		
48 098.2753	0.0012	1	3d ² 4s(4F _{5/2})4f	[4.5] ^o	5		
48 099.7468	0.0016	1	3d ² 4s(4F _{5/2})4f	[3.5] ^o	4		
48 099.8996	0.0012	1	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3		
48 103.072	0.002	1	3d ² 4s(4F _{5/2})4f	[5.5] ^o	6		
48 104.5021	0.0015	1	3d ² 4s(4F _{5/2})4f	[5.5] ^o	5		
48 105.1797	0.0013	1	3d ² 4s(4F _{5/2})4f	[2.5] ^o	3		
48 107.1632	0.0020	1	3d ² 4s(4F _{5/2})4f	[1.5] ^o	1		
48 109.8026	0.0016	1	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2		
48 114.901	0.002	1	3d ² 4s(4F _{5/2})4f	[0.5] ^o	1		
48 117.052	0.002	1	3d ² 4s(4F _{5/2})4f	[0.5] ^o	0		
48 225.3069	0.0013	1	3d ² 4s(4F _{7/2})4f	[4.5] ^o	5		
48 226.3275	0.0013	1	3d ² 4s(4F _{7/2})4f	[5.5] ^o	6		
48 231.2870	0.0010	1	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4		
48 232.6032	0.0011	1	3d ² 4s(4F _{7/2})4f	[5.5] ^o	5		
48 233.3565	0.0019	1	3d ² 4s(4F _{7/2})4f	[6.5] ^o	7		
48 236.1499	0.0016	1	3d ² 4s(4F _{7/2})4f	[1.5] ^o	1		
48 236.2911	0.0016	1	3d ² 4s(4F _{7/2})4f	[4.5] ^o	4		
48 239.0643	0.0013	1	3d ² 4s(4F _{7/2})4f	[3.5] ^o	3		
48 240.0545	0.0020	1	3d ² 4s(4F _{7/2})4f	[2.5] ^o	2		
48 240.9468	0.0016	1	3d ² 4s(4F _{7/2})4f	[6.5] ^o	6		
48 240.9634	0.0015	1	3d ² 4s(4F _{7/2})4f	[2.5] ^o	3		
48 242.7911	0.0015	1	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2		
48 243.7633	0.0016	1	3d ² 4s(4F _{7/2})4f	[0.5] ^o	1		
48 250.311	0.003	1	3d ² 4s(4F _{7/2})4f	[0.5] ^o	0		
48 390.0466	0.0019	1	3d ² 4s(4F _{9/2})4f	[6.5] ^o	7		
48 391.3494	0.0012	1	3d ² 4s(4F _{9/2})4f	[5.5] ^o	6		
48 394.9202	0.0015	1	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3		
48 397.7893	0.0010	1	3d ² 4s(4F _{9/2})4f	[4.5] ^o	5		
48 399.8062	0.0014	1	3d ² 4s(4F _{9/2})4f	[1.5] ^o	2		
48 400.3506	0.0013	1	3d ² 4s(4F _{9/2})4f	[6.5] ^o	6		
48 401.085	0.004	1	3d ² 4s(4F _{9/2})4f	[7.5] ^o	8		
48 404.4036	0.0011	1	3d ² 4s(4F _{9/2})4f	[5.5] ^o	5		
48 404.4870	0.0012	1	3d ² 4s(4F _{9/2})4f	[4.5] ^o	4		
48 407.7054	0.0013	1	3d ² 4s(4F _{9/2})4f	[3.5] ^o	3		
48 408.0679	0.0016	1	3d ² 4s(4F _{9/2})4f	[2.5] ^o	2		
48 412.9432	0.0013	1	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4		
48 414.1235	0.0019	1	3d ² 4s(4F _{9/2})4f	[7.5] ^o	7		
48 422.305	0.005	1	3d ² 4s(4F _{9/2})4f	[1.5] ^o	1		
49 045.692	0.003	1	3d ³ (4F _{3/2})4f	[4.5] ^o	5		
49 045.948	0.004	1	3d ³ (4F _{3/2})4f	[4.5] ^o	4		
49 054.2137	0.0018	1	3d ³ (4F _{3/2})4f	[2.5] ^o	3		
49 061.1894	0.0020	1	3d ³ (4F _{3/2})4f	[3.5] ^o	3		
49 064.286	0.003	1	3d ³ (4F _{3/2})4f	[3.5] ^o	4		
49 125.7684	0.0020	1	3d ³ (4F _{5/2})4f	[3.5] ^o	3		
49 126.494	0.003	1	3d ³ (4F _{5/2})4f	[1.5] ^o	1		
49 129.444	0.003	1	3d ³ (4F _{5/2})4f	[5.5] ^o	6		
49 132.2874	0.0018	1	3d ³ (4F _{5/2})4f	[2.5] ^o	3		
49 133.812	0.003	1	3d ³ (4F _{5/2})4f	[2.5] ^o	2		

TABLE I. Energy levels of Ti I—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages
49 134.7472	0.0015	1	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	4		
49 136.7877	0.0017	1	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	5		
49 137.6912	0.0019	1	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	4		
49 230.464	0.003	1	3d ³ (⁴ F _{7/2})4f	[6.5] ^o	6		
49 235.4807	0.0017	1	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	4		
49 237.3220	0.0018	1	3d ³ (⁴ F _{7/2})4f	[2.5] ^o	3		
49 239.1215	0.0015	1	3d ³ (⁴ F _{7/2})4f	[5.5] ^o	6		
49 239.6179	0.0016	1	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	5		
49 241.4624	0.0016	1	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	3		
49 243.311	0.002	1	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	4		
49 243.931	0.003	1	3d ³ (⁴ F _{7/2})4f	[5.5] ^o	5		
49 342.211	0.005	1	3d ³ (⁴ F _{9/2})4f	[7.5] ^o	8		
49 356.946	0.003	1	3d ³ (⁴ F _{9/2})4f	[3.5] ^o	4		
49 358.948	0.004	1	3d ³ (⁴ F _{9/2})4f	[3.5] ^o	3		
49 360.746	0.003	1	3d ³ (⁴ F _{9/2})4f	[7.5] ^o	7		
49 366.4207	0.0016	1	3d ³ (⁴ F _{9/2})4f	[4.5] ^o	5		
49 367.147	0.002	1	3d ³ (⁴ F _{9/2})4f	[6.5] ^o	7		
49 368.801	0.003	1	3d ³ (⁴ F _{9/2})4f	[4.5] ^o	4		
49 369.5979	0.0017	1	3d ³ (⁴ F _{9/2})4f	[6.5] ^o	6		
49 373.7989	0.0019	1	3d ³ (⁴ F _{9/2})4f	[5.5] ^o	6		
49 377.451	0.002	1	3d ³ (⁴ F _{9/2})4f	[5.5] ^o	5		
50 653.971	0.003	0	3d ² 4s(⁴ F _{3/2})5g	[4.5]	4		
50 653.973	0.002	0	3d ² 4s(⁴ F _{3/2})5g	[4.5]	5		
50 654.759	0.003	0	3d ² 4s(⁴ F _{3/2})5g	[3.5]	4		
50 654.774	0.003	0	3d ² 4s(⁴ F _{3/2})5g	[3.5]	3		
50 655.489	0.002	0	3d ² 4s(⁴ F _{3/2})5g	[5.5]	5		
50 655.494	0.003	0	3d ² 4s(⁴ F _{3/2})5g	[5.5]	6		
50 748.490	0.003	0	3d ² 4s(⁴ F _{5/2})5g	[4.5]	5		
50 748.493	0.003	0	3d ² 4s(⁴ F _{5/2})5g	[5.5]	6		
50 748.618	0.004	0	3d ² 4s(⁴ F _{5/2})5g	[5.5]	5		
50 748.626	0.009	0	3d ² 4s(⁴ F _{5/2})5g	[4.5]	4		
50 748.836	0.003	0	3d ² 4s(⁴ F _{5/2})5g	[3.5]	4		
50 749.398	0.003	0	3d ² 4s(⁴ F _{5/2})5g	[3.5]	3		
50 749.625	0.003	0	3d ² 4s(⁴ F _{5/2})5g	[6.5]	6		
50 749.632	0.004	0	3d ² 4s(⁴ F _{5/2})5g	[6.5]	7		
50 879.807	0.006	0	3d ² 4s(⁴ F _{7/2})5g	[5.5]	5		
50 879.882	0.003	0	3d ² 4s(⁴ F _{7/2})5g	[4.5]	5		
50 879.892	0.003	0	3d ² 4s(⁴ F _{7/2})5g	[5.5]	6		
50 880.087	0.003	0	3d ² 4s(⁴ F _{7/2})5g	[6.5]	6		
50 880.094	0.004	0	3d ² 4s(⁴ F _{7/2})5g	[6.5]	7		
50 880.596	0.006	0	3d ² 4s(⁴ F _{7/2})5g	[4.5]	4		
50 881.489	0.003	0	3d ² 4s(⁴ F _{7/2})5g	[7.5]	7		
50 881.491	0.003	0	3d ² 4s(⁴ F _{7/2})5g	[7.5]	8		
51 047.104	0.003	0	3d ² 4s(⁴ F _{9/2})5g	[6.5]	7		
51 047.112	0.003	0	3d ² 4s(⁴ F _{9/2})5g	[6.5]	6		
51 047.427	0.003	0	3d ² 4s(⁴ F _{9/2})5g	[5.5]	5		
51 047.4295	0.0018	0	3d ² 4s(⁴ F _{9/2})5g	[5.5]	6		
51 047.876	0.003	0	3d ² 4s(⁴ F _{9/2})5g	[7.5]	8		
51 047.877	0.003	0	3d ² 4s(⁴ F _{9/2})5g	[7.5]	7		
51 048.240	0.002	0	3d ² 4s(⁴ F _{9/2})5g	[4.5]	5		
51 048.244	0.003	0	3d ² 4s(⁴ F _{9/2})5g	[4.5]	4		
51 048.865	0.006	0	3d ² 4s(⁴ F _{9/2})5g	[3.5]	4		
51 049.640	0.004	0	3d ² 4s(⁴ F _{9/2})5g	[8.5]	9		
51 049.642	0.003	0	3d ² 4s(⁴ F _{9/2})5g	[8.5]	8		
51 049.988	0.007	0	3d ² 4s(⁴ F _{9/2})5g	[3.5]	3		

TABLE 2. Sources of Ti I lines

Source	Number of classifications	Light source/Spectrometers ^a	Wavelength range (Å)	Uncertainty (Å)
09KIL	5	110V, 11 A arc/grating spectrograph	3249–5227	0.016–0.05
20KIE/MEG	1	Electric arc/grating spectrograph	7475	0.07
27RUS1	4	Not specified	4485–7282	0.02, 0.07
27RUS2	3	Electric furnace/grating spectrograph	3128, 3327	0.02, 0.03
28KIE	1	Vacuum arc/Fabry-Perot interferometer	2942	0.0017
32MEG/KIE	2	DC arc/grating spectrograph	8424, 8496	0.05
38KIE	1	DC arc/grating spectrograph	11292	0.04
61WIL/THE	26	Electrodeless discharge lamp/quartz prism spectrograph	2147–3043	0.005
64GIU/THE	2	Electrodeless discharge lamp/Fabry-Perot interferometer	3709, 3938	0.002
91FOR	3357	Hollow cathode lamp/1-m FTS and 10.7-m Eagle spectrograph	2036–54822	0.0013–0.4
98ALL/GAR	6	The sun/FTS	4495–5840	0.0018–0.006
05LIT	608	Hollow cathode lamp/1-m FTS and 20-cm FTS	2400–37969	0.0002–0.14

^aAbbreviations used: FTS means Fourier transform spectrometer.

3.2. References for section 3

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4. Tables of Energy Levels and Observed Lines of Singly Ionized Titanium, Ti II

4.1. Discussion

Ground state $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2 4s$ a $^4F_{3/2}$.
 Ionization energy $109\,494\text{ cm}^{-1} \pm 20\text{ cm}^{-1}$ ($13.575\,5\text{ eV} \pm 0.0025\text{ eV}$) [82HUL/JOH].

The energy levels of singly ionized titanium, Ti II, were compiled by Sugar and Corliss [85SUG/COR] based on the work of Huldt *et al.* [82HUL/JOH] and [82HUL/JOH2]. Recent Fourier transform spectrometer (FTS) measurements of the spectrum of Ti II by Zapadlik *et al.* [10ZAP/JOH]

added many new lines. Some additional FTS lines were provided by Allende Prieto and García López [98ALL/GAR], Pickering *et al.* [01PIC/THO], and Aldenius [09ALD]. The preliminary levels for this fit (Table 4) were obtained from the work of Zapadlik *et al.* [10ZAP/JOH].

In the energy level table (Table 4), the levels are designated using LS coupling.

The observed spectral lines of Ti II are compiled from seven sources: [28KIE], [82HUL/JOH], [82HUL/JOH2], [98ALL/GAR], [01PIC/THO], [09ALD], and [10ZAP/JOH]. The sources used in this compilation are summarized in Table 5 (sources of Ti II lines). We only include observed lines. However, Huld *et al.* [82HUL/JOH], [82HUL/JOH2] do not report the actual observed wavelengths for lines having

wavelengths below 2500 Å. They provide the observed intensity for each of these lines but their quoted value is based on the determined energy levels (Ritz wavelengths). Since these lines were actually observed, they are included and denoted by the reference [82HUL/JOH2], as opposed to the lines where the observed wavelengths are given, which are denoted by the reference [82HUL/JOH]. Table 5 specifies the reference from which the lines were obtained, the number of classifications that apply to lines from this reference, the light source used to produce the lines and the spectrometer used to observe them, the wavelength range from which lines from this reference are included in the table of lines, and the range of uncertainties for these lines in the lines table (Table 6).

TABLE 3. Spectral lines of Ti I

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2036.0291	49 099.43	00	3d ² 4s ²	a ³ F	2	–	3d ² 4s(² F)5p	³ D ^o	2	0.0017	91FOR
2036.8215	49 080.33	4	3d ² 4s ²	a ³ F	2	–	3d ² 4s(² F)5p	³ D ^o	1	0.0017	91FOR
2040.9868	48 980.18	00	3d ² 4s ²	a ³ F	3	–	3d ² 4s(² F)5p	³ D ^o	3	0.0017	91FOR
2043.1073	48 929.35	5	3d ² 4s ²	a ³ F	3	–	3d ² 4s(² F)5p	³ D ^o	2	0.0017	91FOR
2050.0592	48 763.45	5	3d ² 4s ²	a ³ F	4	–	3d ² 4s(² F)5p	³ D ^o	3	0.0017	91FOR
2056.7711	48 604.34	0	3d ² 4s ²	a ³ F	3	–	3d ² 4s(² F)5p	³ F ^o	4	0.0017	91FOR
2059.3997	48 542.31	4	3d ² 4s ²	a ³ F	2	–	3d ² 4s(² F)5p	³ G ^o	3	0.0017	91FOR
2060.5923	48 514.22	5	3d ² 4s ²	a ³ F	3	–	3d ² 4s(² F)5p	³ G ^o	4	0.0017	91FOR
2061.7054	48 488.03	6	3d ² 4s ²	a ³ F	4	–	3d ² 4s(² F)5p	³ G ^o	5	0.0017	91FOR
2062.8734	48 460.58	4	3d ² 4s ²	a ³ F	2	–	3d ² 4s(² F)5p	³ F ^o	2	0.0017	91FOR
2062.9143	48 459.62	4	3d ² 4s ²	a ³ F	3	–	3d ² 4s(² F)5p	³ F ^o	3	0.0017	91FOR
2065.9877	48 387.54	7	3d ² 4s ²	a ³ F	4	–	3d ² 4s(² F)5p	³ F ^o	4	0.0017	91FOR
2066.6438	48 372.18	4	3d ² 4s ²	a ³ F	3	–	3d ² 4s(² F)5p	³ G ^o	3	0.0017	91FOR
2069.8398	48 297.50	1	3d ² 4s ²	a ³ F	4	–	3d ² 4s(² F)5p	³ G ^o	4	0.0017	91FOR
2072.1857	48 242.83	2*	3d ² 4s ²	a ³ F	3	–	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	4	0.0017	91FOR
2072.1857	48 242.83	2*	3d ² 4s ²	a ³ F	2	–	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.0017	91FOR
2113.8076	47 293.02	00	3d ² 4s ²	a ³ F	3	–	3d ³ (² F)4p	p ³ F ^o	4	0.0018	91FOR
2118.5342	47 187.52	5	3d ² 4s ²	a ³ F	2	–	3d ³ (² F)4p	p ³ F ^o	2	0.0018	91FOR
2121.9432	47 111.72	6	3d ² 4s ²	a ³ F	3	–	3d ³ (² F)4p	p ³ F ^o	3	0.0018	91FOR
2123.5489	47 076.10	10	3d ² 4s ²	a ³ F	4	–	3d ³ (² F)4p	p ³ F ^o	4	0.0018	91FOR
2139.4896	46 725.39	8	3d ² 4s ²	a ³ F	2	–	3d ³ (² F)4p	³ G ^o	3	0.0018	91FOR
2142.1292	46 667.82	9	3d ² 4s ²	a ³ F	3	–	3d ³ (² F)4p	³ G ^o	4	0.0018	91FOR
2143.6167	46 635.44	10	3d ² 4s ²	a ³ F	4	–	3d ³ (² F)4p	³ G ^o	5	0.0018	91FOR
2147.304	46 555.37	00	3d ² 4s ²	a ³ F	3	–	3d ³ (² F)4p	³ G ^o	3	0.005	61WIL/THE
2152.1236	46 451.12	0	3d ² 4s ²	a ³ F	4	–	3d ³ (² F)4p	³ G ^o	4	0.0019	91FOR
2211.3810	45 206.52	0	3d ² 4s ²	a ³ F	2	–	3d ³ (⁴ F)5p	n ³ D ^o	3	0.0020	91FOR
2218.3760	45 063.99	5 bl	3d ² 4s ²	a ³ F	2	–	3d ³ (⁴ F)5p	n ³ D ^o	2	0.0020	91FOR
2219.7356	45 036.39	5	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)5p	n ³ D ^o	3	0.0020	91FOR
2221.4474	45 001.69	9	3d ² 4s ²	a ³ F	2	–	3d ³ (⁴ F)5p	³ G ^o	3	0.0020	91FOR
2223.1845	44 966.53	8	3d ² 4s ²	a ³ F	2	–	3d ³ (⁴ F)5p	n ³ D ^o	1	0.0020	91FOR
2225.1111	44 927.60	10	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)5p	³ G ^o	4	0.0020	91FOR
2226.7851	44 893.83	8	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)5p	n ³ D ^o	2	0.0020	91FOR
2229.7246	44 834.65	8	3d ² 4s ²	a ³ F	2	–	3d ³ (⁴ F)5p	³ F ^o	2	0.0020	91FOR
2229.8793	44 831.54	0	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)5p	³ G ^o	3	0.0020	91FOR
2230.2191	44 824.71	10	3d ² 4s ²	a ³ F	4	–	3d ³ (⁴ F)5p	³ G ^o	5	0.0020	91FOR
2230.4709	44 819.65	10	3d ² 4s ²	a ³ F	4	–	3d ³ (⁴ F)5p	n ³ D ^o	3	0.0020	91FOR
2233.8016	44 752.83	9	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)5p	³ F ^o	3	0.0020	91FOR
2238.221	44 664.47	6	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)5p	³ F ^o	2	0.002	91FOR
2238.743	44 654.06	10	3d ² 4s ²	a ³ F	4	–	3d ³ (⁴ F)5p	³ F ^o	4	0.002	91FOR
2244.675	44 536.06	7	3d ² 4s ²	a ³ F	4	–	3d ³ (⁴ F)5p	³ F ^o	3	0.002	91FOR
2261.780	44 199.28	1	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)5p	⁵ F ^o	4	0.002	91FOR
2264.016	44 155.63	12	3d ² 4s ²	a ³ F	2	–	3d ² 4s(⁴ F)5p	³ G ^o	3	0.002	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2266.148	44 114.10	0	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)5p	⁵ F ^o	3	0.002	91FOR
2267.367	44 090.38	6	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)5p	⁵ F ^o	5	0.002	91FOR
2267.545	44 086.92	13	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.002	91FOR
2267.914	44 079.76	10	3d ² 4s ²	a ³ F	2	—	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.002	91FOR
2268.751	44 063.49	9	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.002	91FOR
2272.612	43 988.63	13	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	³ G ^o	5	0.002	91FOR
2272.773	43 985.52	5	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.002	91FOR
2272.927	43 982.54	1	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)5p	⁵ F ^o	4	0.002	91FOR
2273.279	43 975.73	14	3d ² 4s ²	a ³ F	2	—	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.002	91FOR
2276.702	43 909.63	14	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.002	91FOR
2278.747	43 870.22	6	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.002	91FOR
2279.967	43 846.75	15	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.002	91FOR
2293.747	43 583.35	8	3d ² 4s ²	a ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.002	91FOR
2294.205	43 574.66	8	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.002	91FOR
2299.858	43 467.55	14	3d ² 4s ²	a ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.002	91FOR
2302.736	43 413.23	14	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.002	91FOR
2305.674	43 357.92	15	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.002	91FOR
2308.898	43 297.39	7	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.002	91FOR
2314.292	43 196.48	6	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.002	91FOR
2328.798	42 927.43	00	3d ² 4s ²	a ³ F	2	—	3d ³ (² P)4p	¹ D ^o	2	0.005	61WIL/THE
2365.034	42 269.77	0	3d ² 4s ²	a ³ F	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.002	91FOR
2368.567	42 206.73		3d ² 4s ²	a ³ F	2	—	3d4s ² 4p	q ³ D ^o	2	0.002	91FOR
2368.581	42 206.48		3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.002	91FOR
2369.282	42 193.99	4	3d ² 4s ²	a ³ F	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.002	91FOR
2371.959	42 146.37	7	3d ² 4s ²	a ³ F	2	—	3d4s ² 4p	q ³ D ^o	1	0.002	91FOR
2372.256	42 141.09	4	3d ² 4s ²	a ³ F	3	—	3d4s ² 4p	q ³ D ^o	3	0.002	91FOR
2373.522	42 118.63	4	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	⁵ D ^o	4	0.002	91FOR
2374.592	42 099.64	6	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.002	91FOR
2378.150	42 036.66	8	3d ² 4s ²	a ³ F	3	—	3d4s ² 4p	q ³ D ^o	2	0.002	91FOR
2380.814	41 989.64	7	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.002	91FOR
2384.517	41 924.43	10	3d ² 4s ²	a ³ F	4	—	3d4s ² 4p	q ³ D ^o	3	0.002	91FOR
2390.725	41 815.57	0	3d ² 4s ²	a ³ F	3	—	3d ² 4s(⁴ F)5p	⁵ F ^o	3	0.002	91FOR
2394.665	41 746.78	00	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.005	61WIL/THE
2397.046	41 705.32	1	3d ² 4s ²	a ³ F	4	—	3d ² 4s(⁴ F)5p	⁵ F ^o	4	0.002	91FOR
2399.371	41 664.91	00	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.005	61WIL/THE
2399.5540	41 661.727	6	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.0006	05LIT
2403.987	41 584.91	00	3d ² 4s ²	a ³ F	2	—	3d ³ (² G)4p	v ¹ F ^o	3	0.005	61WIL/THE
2404.3831	41 578.059	10	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	3	0.0006	05LIT
2404.543	41 575.29	1	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.002	91FOR
2404.8327	41 570.285	6	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.0006	05LIT
2404.8508	41 569.973	6	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	4	0.0006	05LIT
2405.3443	41 561.445	15	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	5	0.0002	05LIT
2405.5396	41 558.070	5	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F _{5/2})4f	[0.5] ^o	1	0.0006	05LIT
2406.5424	41 540.754	5	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	2	0.0006	05LIT
2408.8399	41 501.137	6	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.0006	05LIT
2409.272	41 493.70	00	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.005	61WIL/THE
2409.5719	41 488.531	5	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.0006	05LIT
2411.369	41 457.62	7	3d ² 4s ²	a ³ F	2	—	3d4s ² 4p	s ³ F ^o	3	0.002	91FOR
2411.568	41 454.19	4	3d ² 4s ²	a ³ F	3	—	3d4s ² 4p	s ³ F ^o	4	0.005	61WIL/THE
2411.5937	41 453.750	10	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	2	0.0006	05LIT
2413.864	41 414.77	0	3d ² 4s ²	a ³ F	3	—	3d ³ (² G)4p	v ¹ F ^o	3	0.002	91FOR
2414.7703	41 399.223	9	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	3	0.0006	05LIT
2415.685	41 383.55	00	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	6	0.005	61WIL/THE
2418.362	41 337.74	12	3d ² 4s ²	a ³ F	2	—	3d4s ² 4p	s ³ F ^o	2	0.002	91FOR
2421.305	41 287.50	>15	3d ² 4s ²	a ³ F	3	—	3d4s ² 4p	s ³ F ^o	3	0.002	91FOR
2424.255	41 237.27	>15	3d ² 4s ²	a ³ F	4	—	3d4s ² 4p	s ³ F ^o	4	0.002	91FOR
2426.562	41 198.06	00	3d ² 4s ²	a ³ F	4	—	3d ³ (² G)4p	v ¹ F ^o	3	0.002	91FOR
2428.214	41 170.04	10	3d ² 4s ²	a ³ F	2	—	3d ³ (² H)4p	³ G ^o	3	0.002	91FOR
2428.355	41 167.65	8	3d ² 4s ²	a ³ F	3	—	3d4s ² 4p	s ³ F ^o	2	0.002	91FOR
2431.783	41 109.61	4	3d ² 4s ²	a ¹ D	2	—	3d ³ (² F)4p	u ¹ F ^o	3	0.002	91FOR
2433.218	41 085.38	11	3d ² 4s ²	a ³ F	3	—	3d ³ (² H)4p	³ G ^o	4	0.002	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2434.080	41 070.82	8	3d ² 4s ²	a ³ F	4	—	3d4s ² 4p	s ³ F ^o	3	0.002	91FOR
2438.290	40 999.92	6	3d ² 4s ²	a ³ F	3	—	3d ³ (² H)4p	³ G ^o	3	0.002	91FOR
2440.980	40 954.74	12	3d ² 4s ²	a ³ F	4	—	3d ³ (² H)4p	³ G ^o	5	0.002	91FOR
2446.122	40 868.65	7	3d ² 4s ²	a ³ F	4	—	3d ³ (² H)4p	³ G ^o	4	0.002	91FOR
2447.585	40 844.23	00	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.002	91FOR
2457.826	40 674.05	5	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.002	91FOR
2458.037	40 670.56	4	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.002	91FOR
2459.089	40 653.16	3	3d ² 4s ²	a ³ F	4	—	3d ³ (² H)4p	y ¹ H ^o	5	0.005	61WIL/THE
2459.652	40 643.86	8	3d ² 4s ²	a ³ P	0	—	3d ² 4s(² F)5p	³ D ^o	1	0.002	91FOR
2461.879	40 607.09	4	3d ² 4s ²	a ³ P	1	—	3d ² 4s(² F)5p	³ D ^o	2	0.002	91FOR
2463.045	40 587.87	4	3d ² 4s ²	a ³ P	1	—	3d ² 4s(² F)5p	³ D ^o	1	0.002	91FOR
2464.979	40 556.03	6	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	r ³ D ^o	1	0.002	91FOR
2465.467	40 548.00	5	3d ² 4s ²	a ³ P	2	—	3d ² 4s(² F)5p	³ D ^o	3	0.002	91FOR
2468.366	40 500.38	6	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.002	91FOR
2468.564	40 497.14	2	3d ² 4s ²	a ³ P	2	—	3d ² 4s(² F)5p	³ D ^o	2	0.002	91FOR
2470.996	40 457.28	6	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.002	91FOR
2504.510	39 915.94	7	3d ² 4s ²	a ³ F	4	—	3d ³ (² D2)4p	w ¹ F ^o	3	0.005	61WIL/THE
2517.155	39 715.44	1	3d ² 4s ²	a ³ F	2	—	3d ³ (² D2)4p	s ³ D ^o	3	0.003	91FOR
2519.025	39 685.95	10	3d ² 4s ²	a ³ F	2	—	3d ³ (² D2)4p	s ³ D ^o	2	0.003	91FOR
2520.542	39 662.07	>15	3d ² 4s ²	a ³ F	2	—	3d ³ (² D2)4p	s ³ D ^o	1	0.003	91FOR
2527.985	39 545.31	10	3d ² 4s ²	a ³ F	3	—	3d ³ (² D2)4p	s ³ D ^o	3	0.003	91FOR
2529.871	39 515.83	5	3d ² 4s ²	a ³ F	3	—	3d ³ (² D2)4p	s ³ D ^o	2	0.003	91FOR
2541.908	39 328.72	>15	3d ² 4s ²	a ³ F	4	—	3d ³ (² D2)4p	s ³ D ^o	3	0.003	91FOR
2556.445	39 105.09	3	3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	¹ P ^o	1	0.003	91FOR
2557.054	39 095.78	6	3d ² 4s ²	a ³ F	3	—	3d4s ² 4p	w ¹ D ^o	2	0.005	61WIL/THE
2558.236	39 077.72	4	3d ² 4s ²	a ³ F	2	—	3d ³ (² D2)4p	x ¹ P ^o	1	0.003	91FOR
2578.883	38 764.87	3	3d ² 4s ²	a ³ F	2	—	3d ³ (² P)4p	t ³ D ^o	3	0.003	91FOR
2583.221	38 699.78	5	3d ² 4s ²	a ³ F	2	—	3d ³ (² P)4p	t ³ D ^o	2	0.003	91FOR
2586.277	38 654.06	4	3d ² 4s ²	a ³ F	2	—	3d ³ (² P)4p	t ³ D ^o	1	0.003	91FOR
2590.255	38 594.69	8	3d ² 4s ²	a ³ F	3	—	3d ³ (² P)4p	t ³ D ^o	3	0.003	91FOR
2593.640	38 544.32	11	3d ² 4s ²	a ³ F	2	—	3d ³ (² G)4p	t ³ F ^o	3	0.003	91FOR
2594.628	38 529.65	2	3d ² 4s ²	a ³ F	3	—	3d ³ (² P)4p	t ³ D ^o	2	0.003	91FOR
2596.584	38 500.62	11	3d ² 4s ²	a ³ F	3	—	3d ³ (² G)4p	t ³ F ^o	4	0.003	91FOR
2599.904	38 451.46	>15	3d ² 4s ²	a ³ F	2	—	3d ³ (² G)4p	t ³ F ^o	2	0.003	91FOR
2604.891	38 377.85	6	3d ² 4s ²	a ³ F	4	—	3d ³ (² P)4p	t ³ D ^o	3	0.003	91FOR
2605.133	38 374.29	15	3d ² 4s ²	a ³ F	3	—	3d ³ (² G)4p	t ³ F ^o	3	0.003	91FOR
2611.285	38 283.89	15	3d ² 4s ²	a ³ F	4	—	3d ³ (² G)4p	t ³ F ^o	4	0.003	91FOR
2611.469	38 281.19	11	3d ² 4s ²	a ³ F	3	—	3d ³ (² G)4p	t ³ F ^o	2	0.003	91FOR
2619.802	38 159.43	5	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.003	91FOR
2619.934	38 157.52	13	3d ² 4s ²	a ³ F	4	—	3d ³ (² G)4p	t ³ F ^o	3	0.003	91FOR
2631.525	37 989.45	14	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.003	91FOR
2632.411	37 976.67	14	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
2636.164	37 922.60	0	3d ² 4s ²	a ¹ D	2	—	3d ² 4s(² P)4p	³ P ^o	2	0.003	91FOR
2641.087	37 851.92	15	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.003	91FOR
2642.275	37 834.90	3	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)5p	⁵ D ^o	4	0.003	91FOR
2642.442	37 832.51	00	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)5p	⁵ D ^o	2	0.003	91FOR
2643.853	37 812.32	3	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)5p	⁵ D ^o	3	0.003	91FOR
2644.253	37 806.60	15	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
2645.376	37 790.56	5	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)5p	⁵ D ^o	2	0.003	91FOR
2646.493	37 774.61	4	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)5p	⁵ D ^o	1	0.003	91FOR
2646.625	37 772.72	15	3d ² 4s ²	a ³ F	4	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.003	91FOR
2648.554	37 745.21	3	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)5p	⁵ D ^o	0	0.003	91FOR
2648.642	37 743.96	5	3d ² 4s ²	a ³ F	2	—	3d ³ (² D2)4p	u ³ F ^o	3	0.003	91FOR
2649.296	37 734.64	6	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ³ (⁴ F)5p	⁵ D ^o	4	0.003	91FOR
2649.584	37 730.54	7	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)5p	⁵ D ^o	3	0.003	91FOR
2649.742	37 728.29	5	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)5p	⁵ D ^o	2	0.003	91FOR
2651.140	37 708.39	2	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)5p	⁵ F ^o	4	0.003	91FOR
2652.753	37 685.47	2	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)5p	⁵ F ^o	3	0.003	91FOR
2652.978	37 682.27	8	3d ² 4s ²	a ³ F	3	—	3d ³ (² D2)4p	u ³ F ^o	4	0.003	91FOR
2654.152	37 665.60	2	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)5p	⁵ F ^o	2	0.003	91FOR
2654.921	37 654.69	8	3d ² 4s ²	a ³ F	2	—	3d ³ (² D2)4p	u ³ F ^o	2	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
2656.361	37 634.28	5	$3d^3(^4F)4s$	a^5F	5	—	$3d^3(^4F)5p$	$^5F^o$	5	0.003	91FOR
2656.902	37 626.63	3	$3d^3(^4F)4s$	a^5F	4	—	$3d^3(^4F)5p$	$^5F^o$	4	0.003	91FOR
2656.940	37 626.09	3	$3d^3(^4F)4s$	a^5F	1	—	$3d^3(^4F)5p$	$^5F^o$	1	0.003	91FOR
2657.118	37 623.56		$3d^3(^4F)4s$	a^5F	2	—	$3d^3(^4F)5p$	$^5F^o$	2	0.003	91FOR
2657.142	37 623.22		$3d^3(^4F)4s$	a^5F	3	—	$3d^3(^4F)5p$	$^5F^o$	3	0.003	91FOR
2657.186	37 622.60		$3d^24s^2$	a^3F	2	—	$3d4s^24p$	x^1F^o	3	0.003	91FOR
2659.905	37 584.15	1	$3d^3(^4F)4s$	a^5F	2	—	$3d^3(^4F)5p$	$^5F^o$	1	0.003	91FOR
2660.636	37 573.82	6	$3d^24s^2$	a^3F	3	—	$3d^3(^2D)4p$	u^3F^o	3	0.003	91FOR
2661.959	37 555.14	14	$3d^24s^2$	a^3F	2	—	$3d^3(^2G)4p$	v^3G^o	3	0.003	91FOR
2662.929	37 541.47	0	$3d^3(^4F)4s$	a^5F	4	—	$3d^3(^4F)5p$	$^5F^o$	3	0.003	91FOR
2663.569	37 532.45	2	$3d^3(^4F)4s$	a^5F	5	—	$3d^24s(^4F)5p$	$^3G^o$	5	0.005	61WIL/THE
2664.865	37 514.20	00	$3d^3(^4F)4s$	a^5F	4	—	$3d^24s(^4F)5p$	$^3G^o$	4	0.005	61WIL/THE
2666.967	37 484.63	00	$3d^24s^2$	a^3F	3	—	$3d^3(^2D)4p$	u^3F^o	2	0.003	91FOR
2668.324	37 465.57	3	$3d^24s^2$	a^3F	4	—	$3d^3(^2D)4p$	u^3F^o	4	0.003	91FOR
2669.262	37 452.41	5	$3d^24s^2$	a^3F	3	—	$3d4s^24p$	x^1F^o	3	0.003	91FOR
2669.587	37 447.85	14	$3d^24s^2$	a^3F	3	—	$3d^3(^2G)4p$	v^3G^o	4	0.003	91FOR
2674.080	37 384.93	6	$3d^24s^2$	a^3F	3	—	$3d^3(^2G)4p$	v^3G^o	3	0.003	91FOR
2676.073	37 357.08	3	$3d^24s^2$	a^3F	4	—	$3d^3(^2D)4p$	u^3F^o	3	0.003	91FOR
2678.354	37 325.27	3	$3d^24s^2$	a^3F	2	—	$3d^3(^2D)4p$	w^3P^o	2	0.003	91FOR
2679.910	37 303.60	15	$3d^24s^2$	a^3F	4	—	$3d^3(^2G)4p$	v^3G^o	5	0.003	91FOR
2680.400	37 296.79	2	$3d^3(^4F)4s$	a^5F	5	—	$3d^3(^4F)5p$	$^5G^o$	6	0.003	91FOR
2681.630	37 279.68	0	$3d^3(^4F)4s$	a^5F	3	—	$3d^3(^4F)5p$	$^5G^o$	4	0.003	91FOR
2682.360	37 269.54	0	$3d^3(^4F)4s$	a^5F	2	—	$3d^3(^4F)5p$	$^5G^o$	3	0.003	91FOR
2683.234	37 257.39	00	$3d^3(^4F)4s$	a^5F	1	—	$3d^3(^4F)5p$	$^5G^o$	2	0.003	91FOR
2684.800	37 235.67	7	$3d^24s^2$	a^3F	4	—	$3d4s^24p$	x^1F^o	3	0.003	91FOR
2685.137	37 230.99	6	$3d^24s^2$	a^3F	4	—	$3d^3(^2G)4p$	v^3G^o	4	0.003	91FOR
2688.160	37 189.13	1	$3d^24s^2$	a^3F	3	—	$3d^3(^4P)4p$	y^5S^o	2	0.005	61WIL/THE
2689.328	37 172.97	2	$3d^24s^2$	a^3F	2	—	$3d^3(^2D)4p$	w^3P^o	1	0.003	91FOR
2689.676	37 168.16	4	$3d^24s^2$	a^3F	4	—	$3d^3(^2G)4p$	v^3G^o	3	0.003	91FOR
2690.609	37 155.28	3	$3d^24s^2$	a^3F	3	—	$3d^3(^2D)4p$	w^3P^o	2	0.003	91FOR
2693.370	37 117.19	0	$3d^24s^2$	a^1G	4	—	$3d^3(^4F_{7/2})4f$	$[3.5]^o$	4	0.005	61WIL/THE
2694.763	37 098.01	0	$3d^3(^4F)4s$	b^3F	4	—	$3d^24s(^2F)5p$	$^3G^o$	5	0.003	91FOR
2702.077	36 997.60	2	$3d^3(^4F)4s$	b^3F	4	—	$3d^24s(^2F)5p$	$^3F^o$	4	0.003	91FOR
2702.640	36 989.88	1	$3d^3(^4F)4s$	b^3F	3	—	$3d^24s(^2F)5p$	$^3F^o$	3	0.003	91FOR
2703.490	36 978.26	0	$3d^24s^2$	a^1D	2	—	$3d^24s(^4F)5p$	o^3D^o	3	0.003	91FOR
2707.110	36 928.81	0	$3d^3(^4F)4s$	b^3F	2	—	$3d^24s(^2F)5p$	$^3F^o$	2	0.003	91FOR
2708.671	36 907.53	0	$3d^3(^4F)4s$	b^3F	4	—	$3d^24s(^2F)5p$	$^3G^o$	4	0.003	91FOR
2709.045	36 902.44	2	$3d^3(^4F)4s$	b^3F	3	—	$3d^24s(^2F)5p$	$^3G^o$	3	0.005	61WIL/THE
2716.107	36 806.49	00	$3d^3(^4F)4s$	a^5F	3	—	$3d^24s(^4F)5p$	r^3F^o	2	0.005	61WIL/THE
2722.480	36 720.34	2	$3d^24s^2$	a^1D	2	—	$3d^24s(^4F)5p$	o^3D^o	1	0.003	91FOR
2725.064	36 685.52	9	$3d^24s^2$	a^3P	1	—	$3d^24s(^2P)4p$	$^3P^o$	2	0.003	91FOR
2727.416	36 653.89	8	$3d^24s^2$	a^3P	0	—	$3d^24s(^2P)4p$	$^3P^o$	1	0.003	91FOR
2729.360	36 627.78	00	$3d^3(^4F)4s$	b^3F	4	—	$3d^24s(^4F_{9/2})4f$	$[5.5]^o$	5	0.005	61WIL/THE
2731.121	36 604.16	7	$3d^24s^2$	a^3P	2	—	$3d^3(^4F)5p$	n^3D^o	3	0.003	91FOR
2731.574	36 598.09	6	$3d^24s^2$	a^3P	1	—	$3d^24s(^2P)4p$	$^3P^o$	1	0.003	91FOR
2732.324	36 588.05	4	$3d^3(^4F)4s$	b^3F	4	—	$3d^3(^2F)4p$	u^1F^o	3	0.005	61WIL/THE
2733.253	36 575.62	13	$3d^24s^2$	a^3P	2	—	$3d^24s(^2P)4p$	$^3P^o$	2	0.003	91FOR
2733.561	36 571.50	6	$3d^24s^2$	a^3P	1	—	$3d^3(^4F)5p$	n^3D^o	2	0.003	91FOR
2735.284	36 548.46	8	$3d^24s^2$	a^3P	1	—	$3d^24s(^2P)4p$	$^3P^o$	0	0.003	91FOR
2735.605	36 544.17	10	$3d^24s^2$	a^1D	2	—	$3d^3(^2D)4p$	u^1D^o	2	0.003	91FOR
2736.674	36 529.89	4	$3d^24s^2$	a^3P	0	—	$3d^3(^4F)5p$	n^3D^o	1	0.003	91FOR
2739.802	36 488.19	10	$3d^24s^2$	a^3P	2	—	$3d^24s(^2P)4p$	$^3P^o$	1	0.003	91FOR
2740.861	36 474.10	3	$3d^24s^2$	a^3P	1	—	$3d^3(^4F)5p$	n^3D^o	1	0.003	91FOR
2741.799	36 461.62	3	$3d^24s^2$	a^3P	2	—	$3d^3(^4F)5p$	n^3D^o	2	0.003	91FOR
2744.838	36 421.25	7	$3d^24s^2$	a^3P	0	—	$3d^3(^4P)4p$	w^3S^o	1	0.005	61WIL/THE
2749.051	36 365.44	8	$3d^24s^2$	a^3P	1	—	$3d^3(^4P)4p$	w^3S^o	1	0.003	91FOR
2757.385	36 255.53	5	$3d^24s^2$	a^3P	2	—	$3d^3(^4P)4p$	w^3S^o	1	0.003	91FOR
2758.068	36 246.55	11	$3d^24s^2$	a^1G	4	—	$3d^3(^2F)4p$	u^1F^o	3	0.003	91FOR
2790.142	35 829.90	00	$3d^24s^2$	a^3F	3	—	$3d^2(^1G)4s4p(^1P^o)$	y^1G^o	4	0.003	91FOR
2790.653	35 823.34	2	$3d^3(^4F)4s$	b^3F	3	—	$3d^3(^2F)4p$	p^3F^o	4	0.003	91FOR
2794.215	35 777.68	00	$3d^3(^4F)4s$	a^5F	2	—	$3d^24s(^4F)5p$	$^5D^o$	3	0.005	61WIL/THE

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
2795.399	35 762.52	6 bl	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ D ^o	4	0.003	91FOR
2799.086	35 715.42	5 bl	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.003	91FOR
2799.295	35 712.75	3	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.003	91FOR
2801.368	35 686.33	4	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² F)4p	p ³ F ^o	4	0.003	91FOR
2802.494	35 671.99		3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	¹ D ^o	2	0.003	91FOR
2803.246	35 662.42	6	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F)5p	⁵ D ^o	4	0.003	91FOR
2803.769	35 655.77	3	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² F)4p	p ³ F ^o	2	0.003	91FOR
2804.202	35 650.27	0	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d4s ² 4p	q ³ D ^o	3	0.003	91FOR
2805.235	35 637.14	2	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.003	91FOR
2805.502	35 633.75	4	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.003	91FOR
2805.696	35 631.28	10	3d ² 4s ²	a ³ P	2	—	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.003	91FOR
2807.114	35 613.29	0	3d ² 4s ²	a ³ P	4	—	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	0.003	91FOR
2807.468	35 608.79	5	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.003	91FOR
2807.520	35 608.13	00	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d4s ² 4p	q ³ D ^o	2	0.003	91FOR
2808.506	35 595.63		3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	0	0.003	91FOR
2808.539	35 595.22		3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.003	91FOR
2809.161	35 587.33	10	3d ² 4s ²	a ³ P	1	—	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.003	91FOR
2809.969	35 577.10	1	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.003	91FOR
2810.651	35 568.47	3	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d4s ² 4p	q ³ D ^o	3	0.003	91FOR
2812.297	35 547.65	0	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² F)4p	p ³ F ^o	2	0.003	91FOR
2812.448	35 545.75	0	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d4s ² 4p	q ³ D ^o	2	0.003	91FOR
2812.975	35 539.09	6	3d ² 4s ²	a ³ P	0	—	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.003	91FOR
2813.873	35 527.75	0	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	1	0.003	91FOR
2815.672	35 505.05	0	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² F)4p	p ³ F ^o	3	0.003	91FOR
2817.400	35 483.27		3d ² 4s ²	a ³ P	1	—	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.003	91FOR
2817.440	35 482.77		3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.003	91FOR
2821.541	35 431.20	3	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ F ^o	4	0.003	91FOR
2823.474	35 406.94	1	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.003	91FOR
2825.072	35 386.92	2	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ F ^o	3	0.003	91FOR
2825.393	35 382.89	6	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F)5p	⁵ F ^o	5	0.003	91FOR
2826.154	35 373.37	0	3d ² 4s ²	a ³ P	2	—	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.003	91FOR
2826.383	35 370.50	00	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ P)4p	w ⁵ D ^o	4	0.003	91FOR
2828.050	35 349.65	>15 bl*	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ F ^o	2	0.003	91FOR
2828.050	35 349.65	>15 bl*	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ F ^o	4	0.003	91FOR
2828.443	35 344.74	0	3d ² 4s ²	a ¹ G	4	—	3d ³ (² F)4p	p ³ F ^o	4	0.003	91FOR
2830.047	35 324.71	4	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ F ^o	3	0.003	91FOR
2831.425	35 307.52	4	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ F ^o	2	0.003	91FOR
2853.432	35 035.22	2	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.005	61WIL/THE
2832.270	35 296.98	3	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ F ^o	1	0.003	91FOR
2834.755	35 266.04	2	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.003	91FOR
2835.421	35 257.76	2	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F)5p	⁵ G ^o	6	0.003	91FOR
2835.639	35 255.05	2	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ F ^o	1	0.003	91FOR
2836.103	35 249.28	3	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F)5p	⁵ F ^o	4	0.003	91FOR
2836.420	35 245.34	5	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ F ^o	2	0.003	91FOR
2836.610	35 242.98	3	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ F ^o	3	0.003	91FOR
2838.503	35 219.48	1	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ G ^o	5	0.003	91FOR
2840.222	35 198.17	1	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² F)4p	³ G ^o	4	0.003	91FOR
2840.587	35 193.64	00	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² F)4p	³ G ^o	3	0.003	91FOR
2841.148	35 186.70	0	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ G ^o	4	0.003	91FOR
2843.023	35 163.49	2	3d ² 4s ²	a ¹ G	4	—	3d ³ (² F)4p	p ³ F ^o	3	0.003	91FOR
2845.534	35 132.46	0	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ G ^o	2	0.003	91FOR
2846.601	35 119.29	1	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² 4s(⁴ F)5p	⁵ G ^o	5	0.003	91FOR
2847.765	35 104.94	0	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ G ^o	4	0.003	91FOR
2848.499	35 095.90	0	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ G ^o	3	0.003	91FOR
2848.939	35 090.48	00	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ G ^o	2	0.003	91FOR
2849.333	35 085.62	1	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² F)4p	³ G ^o	3	0.003	91FOR
2851.752	35 055.86	00	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	q ³ D ^o	3	0.003	91FOR
2855.131	35 014.38	2	3d ² 4s ²	a ¹ D	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.003	91FOR
2860.276	34 951.40	3	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	q ³ D ^o	2	0.003	91FOR
2865.228	34 890.99	0	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	q ³ D ^o	1	0.003	91FOR
2881.950	34 688.55	2	3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	u ³ P ^o	1	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2883.229	34 673.17	2	3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	u ³ P ^o	2	0.003	91FOR
2899.329	34 480.63	3	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² 4s(² F)5p	u ¹ G ^o	4	0.003	91FOR
2903.168	34 435.04	2	3d ² 4s ²	a ³ P	1	—	3d ³ (² P)4p	¹ D ^o	2	0.005	61WIL/THE
2909.931	34 355.01	6 bl	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² 4s(² F)5p	³ F ^o	2	0.003	91FOR
2912.083	34 329.63	>15	3d ² 4s ²	a ¹ D	2	—	3d ³ (² G)4p	v ¹ F ^o	3	0.003	91FOR
2912.473	34 325.03	2	3d ² 4s ²	a ³ P	2	—	3d ³ (² P)4p	¹ D ^o	2	0.005	61WIL/THE
2922.927	34 202.27	7	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	s ³ F ^o	3	0.003	91FOR
2928.327	34 139.20	10	3d ² 4s ²	a ¹ G	4	—	3d ² 4s(² F)5p	u ¹ G ^o	4	0.003	91FOR
2933.207	34 082.41	0	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	s ³ F ^o	2	0.003	91FOR
2933.528	34 078.68	>15*	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² 4s(⁴ F _{5/2})4f	[1.5] ^o	1	0.003	91FOR
2933.528	34 078.68	>15*	3d ³ (² G)4s	a ³ G	4	—	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	4	0.003	91FOR
2937.304	34 034.87	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.003	91FOR
2941.9950	33 980.605	60 r	3d ² 4s ²	a ³ F	2	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.0017	28KIE
2947.717	33 914.65	10	3d ² 4s ²	a ¹ D	2	—	3d ³ (² H)4p	³ G ^o	3	0.003	91FOR
2948.242	33 908.61	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.003	91FOR
2956.123	33 818.21	>15 bl	3d ² 4s ²	a ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.003	91FOR
2956.782	33 810.67	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.003	91FOR
2958.770	33 787.96	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F _{5/2})5g	[3.5]	3	0.005	61WIL/THE
2959.704	33 777.29	9	3d ² 4s ²	a ³ P	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.004	91FOR
2959.985	33 774.09	10	3d ² 4s ²	a ³ P	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.004	91FOR
2961.459	33 757.28	6	3d ² 4s ²	a ³ P	0	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.004	91FOR
2965.233	33 714.32	13	3d ² 4s ²	a ³ P	1	—	3d4s ² 4p	q ³ D ^o	2	0.004	91FOR
2965.644	33 709.65		3d ² 4s ²	a ³ P	0	—	3d4s ² 4p	q ³ D ^o	1	0.004	91FOR
2965.718	33 708.80		3d ² 4s ²	a ³ P	2	—	3d4s ² 4p	q ³ D ^o	3	0.004	91FOR
2966.365	33 701.45	4	3d ² 4s ²	a ³ P	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.004	91FOR
2967.225	33 691.68	14	3d ² 4s ²	a ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.004	91FOR
2968.239	33 680.18	14	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.004	91FOR
2969.372	33 667.32	5	3d ² 4s ²	a ³ P	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.004	91FOR
2970.379	33 655.91	>15	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.004	91FOR
2970.512	33 654.40	6	3d ³ (² G)4s	a ³ G	5	—	3d ² 4s(² F)5p	³ G ^o	5	0.004	91FOR
2970.558	33 653.88	10	3d ² 4s ²	a ³ P	1	—	3d4s ² 4p	q ³ D ^o	1	0.004	91FOR
2973.772	33 617.51	0	3d ³ (² G)4s	a ³ G	4	—	3d ² 4s(² F)5p	³ F ^o	4	0.004	91FOR
2974.940	33 604.31	10	3d ² 4s ²	a ³ P	2	—	3d4s ² 4p	q ³ D ^o	2	0.004	91FOR
2976.073	33 591.52	0	3d ² 4s ²	a ³ P	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.004	91FOR
2976.323	33 588.70	6	3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	x ³ S ^o	1	0.004	91FOR
2978.279	33 566.64	2	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)5p	n ³ D ^o	3	0.004	91FOR
2979.407	33 553.93	1	3d ³ (² G)4s	a ³ G	5	—	3d ² 4s(² F)5p	³ F ^o	4	0.004	91FOR
2980.296	33 543.92	3	3d ² 4s ²	a ³ P	2	—	3d4s ² 4p	q ³ D ^o	1	0.004	91FOR
2981.346	33 532.11	1	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)5p	n ³ D ^o	2	0.004	91FOR
2981.473	33 530.68	12	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.004	91FOR
2982.287	33 521.53	00	3d ³ (² G)4s	a ³ G	3	—	3d ² 4s(² F)5p	³ F ^o	3	0.004	91FOR
2983.305	33 510.09	>15	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.004	91FOR
2983.567	33 507.15	5	3d ² 4s ²	a ³ P	0	—	3d ³ (² P)4p	u ³ P ^o	1	0.004	91FOR
2985.481	33 485.67	11	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.004	91FOR
2986.631	33 472.78	0	3d ³ (² G)4s	a ³ G	4	—	3d ² 4s(² F)5p	³ F ^o	3	0.004	91FOR
2986.890	33 469.88	3	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)5p	³ G ^o	3	0.004	91FOR
2987.420	33 463.94	1	3d ³ (² G)4s	a ³ G	5	—	3d ² 4s(² F)5p	³ G ^o	4	0.004	91FOR
2987.965	33 457.83	4	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)5p	³ G ^o	4	0.004	91FOR
2989.914	33 436.02	2	3d ² 4s ²	a ³ P	1	—	3d ³ (² P)4p	u ³ P ^o	2	0.004	91FOR
2990.485	33 429.64	9	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)5p	n ³ D ^o	3	0.004	91FOR
2990.983	33 424.07	7	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)5p	n ³ D ^o	2	0.004	91FOR
2991.787	33 415.09	3	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.004	91FOR
2993.041	33 401.09	3	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)5p	³ F ^o	4	0.004	91FOR
2993.931	33 391.17	2	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)5p	³ F ^o	3	0.004	91FOR
2994.436	33 385.54	3	3d ³ (² G)4s	a ³ G	4	—	3d ² 4s(² F)5p	³ G ^o	3	0.004	91FOR
2996.565	33 361.82	2	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)5p	³ G ^o	3	0.004	91FOR
2997.409	33 352.42	1	3d ³ (² G)4s	a ³ G	3	—	3d ² 4s(² F)5p	³ F ^o	2	0.004	91FOR
2998.388	33 341.53	2	3d ² 4s ²	a ³ P	2	—	3d ³ (² P)4p	u ³ P ^o	1	0.004	91FOR
2999.773	33 326.14	2	3d ² 4s ²	a ³ P	2	—	3d ³ (² P)4p	u ³ P ^o	2	0.004	91FOR
3000.249	33 320.85	3	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)5p	³ G ^o	4	0.004	91FOR
3000.865	33 314.01	>15	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.004	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3001.871	33 302.85	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)5p	³ F ^o	2	0.004	91FOR
3002.077	33 300.56	4	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ P)4p	r ³ D ^o	1	0.004	91FOR
3002.7262	33 293.364	>15	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.0011	91FOR
3003.650	33 283.13	5	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)5p	³ F ^o	3	0.004	91FOR
3005.367	33 264.11	5	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)5p	³ F ^o	4	0.004	91FOR
3010.118	33 211.61	2	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	v ³ P ^o	2	0.004	91FOR
3021.353	33 088.12	00	3d ² 4s ²	a ¹ G	4	—	3d ³ (⁴ F)5p	n ³ D ^o	3	0.004	91FOR
3025.0590	33 047.583	3	3d ² 4s ²	a ¹ D	2	—	3d ³ (² D)4p	w ¹ F ^o	3	0.0011	91FOR
3031.026	32 982.53	5	3d ² 4s ²	a ³ P	2	—	3d ³ (² G)4p	v ¹ F ^o	3	0.004	91FOR
3042.535	32 857.77	5	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.005	61WIL/THE
3042.753	32 855.41	4	3d ³ (² G)4s	a ³ G	4	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	5	0.004	91FOR
3043.682	32 845.39	00	3d ² 4s ²	a ³ P	1	—	3d4s ² 4p	s ³ F ^o	2	0.004	91FOR
3064.349	32 623.88	00	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.004	91FOR
3065.406	32 612.63	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)5d	⁵ F	3	0.004	91FOR
3066.714	32 598.72	3	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² 4s(⁴ F)5p	³ G ^o	5	0.004	91FOR
3068.388	32 580.93	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)5d	⁵ F	1	0.004	91FOR
3069.639	32 567.66	1	3d ² 4s ²	a ³ P	2	—	3d ³ (² H)4p	³ G ^o	3	0.004	91FOR
3069.744	32 566.54	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)5d	⁵ F	4	0.004	91FOR
3072.789	32 534.27	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)5d	⁵ F	2	0.004	91FOR
3075.639	32 504.13	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)5d	⁵ F	5	0.004	91FOR
3077.719	32 482.16	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)5d	⁵ F	3	0.004	91FOR
3077.899	32 480.26	1	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.004	91FOR
3079.815	32 460.05	4	3d ² 4s ²	a ¹ D	2	—	3d ³ (² D)4p	s ³ D ^o	3	0.004	91FOR
3081.355	32 443.83	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.004	91FOR
3081.724	32 439.95	3	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.004	91FOR
3082.613	32 430.59	6	3d ² 4s ²	a ¹ D	2	—	3d ³ (² D)4p	s ³ D ^o	2	0.004	91FOR
3084.817	32 407.42	8	3d ² 4s ²	a ³ P	0	—	3d ³ (² P)4p	x ³ S ^o	1	0.004	91FOR
3084.883	32 406.73	00	3d ² 4s ²	a ¹ D	2	—	3d ³ (² D)4p	s ³ D ^o	1	0.004	91FOR
3085.032	32 405.16	8 bl	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)5d	⁵ F	4	0.004	91FOR
3086.818	32 386.42	3	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (¹ G)4s4p(¹ P ^o)	x ¹ H ^o	5	0.004	91FOR
3089.738	32 355.81	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4p ²	⁵ F	5	0.004	91FOR
3090.137	32 351.63	10	3d ² 4s ²	a ³ P	1	—	3d ³ (² P)4p	x ³ S ^o	1	0.004	91FOR
3092.034	32 331.78	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4p ²	⁵ F	3	0.004	91FOR
3093.839	32 312.92	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)5d	⁵ F	5	0.004	91FOR
3100.6665	32 241.774	14	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.0012	91FOR
3101.486	32 233.26	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4p ²	⁵ F	3	0.004	91FOR
3101.766	32 230.35	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4p ²	⁵ F	2	0.004	91FOR
3102.504	32 222.68	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4p ²	⁵ F	4	0.004	91FOR
3105.221	32 194.49	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4p ²	⁵ F	5	0.004	91FOR
3106.8037	32 178.086	12	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.0012	91FOR
3107.4621	32 171.268	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4p ²	⁵ F	1	0.0012	91FOR
3110.6103	32 138.709	14	3d ² 4s ²	a ¹ G	4	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.0012	91FOR
3111.2774	32 131.819	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4p ²	⁵ F	2	0.0012	91FOR
3111.936	32 125.02	1	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² F)4p	p ³ F ^o	3	0.004	91FOR
3112.4814	32 119.390	10	3d ² 4s ²	a ³ P	0	—	3d ³ (⁴ P)4p	r ³ D ^o	1	0.0012	91FOR
3113.880	32 104.96	1	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.004	91FOR
3114.0875	32 102.825	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4p ²	⁵ F	3	0.0012	91FOR
3114.569	32 097.86	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	h ⁵ D	2	0.004	91FOR
3116.374	32 079.27	12	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² F)4p	p ³ F ^o	2	0.004	91FOR
3116.795	32 074.94	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	h ⁵ D	4	0.004	91FOR
3117.4537	32 068.162	9	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.0012	91FOR
3117.8995	32 063.577	7	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	r ³ D ^o	1	0.0012	91FOR
3117.960	32 062.95	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	h ⁵ D	3	0.004	91FOR
3118.1236	32 061.272	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4p ²	⁵ F	4	0.0012	91FOR
3118.284	32 059.62	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)5d	h ⁵ G	3	0.004	91FOR
3119.068	32 051.57	0	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.004	91FOR
3119.7229	32 044.837	>15	3d ² 4s ²	a ¹ G	4	—	3d ² (¹ G)4s4p(¹ P ^o)	x ¹ H ^o	5	0.0012	91FOR
3119.952	32 042.48		3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.004	91FOR
3119.978	32 042.22		3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	h ⁵ D	1	0.004	91FOR
3120.203	32 039.91	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	h ⁵ D	2	0.004	91FOR
3122.801	32 013.25	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)5d	h ⁵ G	5	0.004	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3123.0734	32 010.460	10	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	w ¹ D ^o	2	0.0012	91FOR
3123.7728	32 003.293	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4p ²	⁵ F	5	0.0012	91FOR
3124.740	31 993.39	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)5d	h ⁵ G	2	0.004	91FOR
3125.5462	31 985.136	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	h ⁵ D	0	0.0012	91FOR
3125.6354	31 984.223	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	h ⁵ D	1	0.0012	91FOR
3126.580	31 974.56	1	3d ² 4s ²	a ³ P	1	—	3d4s ² 4p	v ³ P ^o	2	0.004	91FOR
3127.226	31 967.96	5	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.004	91FOR
3127.427	31 965.90	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)5d	h ⁵ G	6	0.004	91FOR
3127.562	31 964.52	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	e ³ D	3	0.004	91FOR
3127.684	31 963.27	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)5d	g ⁵ H	3	0.004	91FOR
3127.90	31 961.09	5*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	h ⁵ D	4	0.03	27RUS2
3127.90	31 961.09	5*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)5d	h ⁵ G	3	0.03	27RUS2
3128.6316	31 953.594	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	h ⁵ D	2	0.0012	91FOR
3129.0708	31 949.109	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	h ⁵ D	3	0.0012	91FOR
3129.193	31 947.86	0	3d ² 4s ²	a ³ P	0	—	3d4s ² 4p	v ³ P ^o	1	0.004	91FOR
3129.618	31 943.52	4	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.004	91FOR
3130.166	31 937.93	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)5d	g ⁵ H	4	0.004	91FOR
3130.383	31 935.72	6	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.004	91FOR
3132.709	31 912.01	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.004	91FOR
3133.122	31 907.80	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	e ³ D	1	0.004	91FOR
3133.187	31 907.14	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	e ³ D	2	0.004	91FOR
3134.397	31 894.82	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)5d	h ⁵ G	2	0.004	91FOR
3134.668	31 892.06	3	3d ² 4s ²	a ³ P	1	—	3d4s ² 4p	v ³ P ^o	1	0.004	91FOR
3135.052	31 888.16	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)5d	g ⁵ H	5	0.004	91FOR
3136.025	31 878.26	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	e ³ D	3	0.004	91FOR
3136.140	31 877.09	00	3d ² 4s ²	a ³ P	1	—	3d4s ² 4p	v ³ P ^o	0	0.004	91FOR
3137.367	31 864.63	0	3d ² 4s ²	a ³ P	2	—	3d4s ² 4p	v ³ P ^o	2	0.004	91FOR
3138.627	31 851.84	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)5d	h ⁵ G	5	0.004	91FOR
3138.826	31 849.82	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	e ³ D	1	0.004	91FOR
3138.890	31 849.17	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	e ³ D	2	0.004	91FOR
3139.8753	31 839.174	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)5d	g ⁵ H	6	0.0012	91FOR
3141.004	31 827.73	3	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.004	91FOR
3141.5312	31 822.392	12	3d ² 4s ²	a ¹ D	2	—	3d ³ (² D ₂)4p	x ¹ P ^o	1	0.0012	91FOR
3141.6687	31 821.000	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4p ²	h ⁵ D	4	0.0012	91FOR
3143.098	31 806.53	1	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.004	91FOR
3143.3448	31 804.033	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)5d	g ⁵ H	7	0.0012	91FOR
3143.551	31 801.95	2	3d ³ (² G)4s	a ³ G	5	—	3d ³ (² F)4p	³ G ^o	5	0.004	91FOR
3145.508	31 782.16	6	3d ² 4s ²	a ³ P	2	—	3d4s ² 4p	v ³ P ^o	1	0.004	91FOR
3146.246	31 774.71	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)5d	h ⁵ G	6	0.004	91FOR
3147.262	31 764.45	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	e ³ D	3	0.004	91FOR
3147.419	31 762.87	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	e ³ D	2	0.004	91FOR
3148.628	31 750.67	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.004	91FOR
3151.114	31 725.62	2	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.004	91FOR
3152.552	31 711.15	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5d	⁵ F	4	0.004	91FOR
3153.5999	31 700.614	10	3d ² 4s ²	a ³ P	2	—	3d ³ (² D ₂)4p	w ¹ F ^o	3	0.0012	91FOR
3154.378	31 692.79	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)5d	⁵ F	2	0.004	91FOR
3155.533	31 681.19	2	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² F)4p	³ G ^o	4	0.004	91FOR
3157.586	31 660.60	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)5d	h ⁵ G	5	0.004	91FOR
3157.6628	31 659.827	9	3d ² 4s ²	a ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	4	0.0012	91FOR
3159.559	31 640.83	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)5d	⁵ F	1	0.004	91FOR
3160.079	31 635.62	3	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	2	0.004	91FOR
3160.160	31 634.81	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)5d	⁵ F	2	0.004	91FOR
3160.961	31 626.79	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5d	⁵ F	3	0.004	91FOR
3161.908	31 617.32	5	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² F)4p	³ G ^o	3	0.004	91FOR
3163.911	31 597.31	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5d	⁵ F	4	0.004	91FOR
3165.355	31 582.89	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)5d	⁵ F	1	0.004	91FOR
3168.034	31 556.19	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	⁵ F	5	0.004	91FOR
3168.807	31 548.49	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5d	⁵ F	2	0.004	91FOR
3170.9266	31 527.401	11	3d ² 4s ²	a ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	5	0.0012	91FOR
3172.380	31 512.96	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5d	⁵ F	3	0.004	91FOR
3172.7284	31 509.497	9	3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	t ³ D ^o	3	0.0012	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3178.010	31 457.13	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	⁵ F	4	0.004	91FOR
3179.2924	31 444.444	8	3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	t ³ D ^o	2	0.0012	91FOR
3179.431	31 443.07	4	3d ² 4s ²	a ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	4	0.004	91FOR
3183.924	31 398.70	3	3d ² 4s ²	a ¹ D	2	—	3d ³ (² P)4p	t ³ D ^o	1	0.004	91FOR
3185.123	31 386.89	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	⁵ F	5	0.004	91FOR
3186.4510	31 373.805	>15	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.0012	91FOR
3187.115	31 367.27	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	⁵ F	4	0.004	91FOR
3190.531	31 333.69	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	⁵ F	3	0.004	91FOR
3191.9931	31 319.334	>15	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	w ³ G ^o	4	0.0012	91FOR
3194.962	31 290.23	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	⁵ F	2	0.004	91FOR
3198.719	31 253.48	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	⁵ F	4	0.004	91FOR
3199.337	31 247.44	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	⁵ F	3	0.004	91FOR
3199.4252	31 246.583	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4p ²	⁵ F	5	0.0012	91FOR
3199.9149	31 241.802	>15	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	w ³ G ^o	5	0.0012	91FOR
3200.887	31 232.31	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	⁵ F	2	0.004	91FOR
3201.005	31 231.16	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	⁵ F	1	0.004	91FOR
3201.5890	31 225.466	11	3d ² 4s ²	a ³ P	0	—	3d ³ (² D)4p	s ³ D ^o	1	0.0012	91FOR
3203.585	31 206.01	6	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.004	91FOR
3203.8254	31 203.670	>15	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.0012	91FOR
3204.8667	31 193.532	11	3d ² 4s ²	a ³ P	1	—	3d ³ (² D)4p	s ³ D ^o	2	0.0012	91FOR
3205.1616	31 190.662	11	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.0012	91FOR
3205.8460	31 184.004	5	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.0012	91FOR
3206.3369	31 179.229	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4p ²	g ⁵ G	6	0.0012	91FOR
3206.8222	31 174.511	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4p ²	g ⁵ G	5	0.0012	91FOR
3206.955	31 173.22	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	⁵ F	1	0.004	91FOR
3207.3224	31 169.650	12	3d ² 4s ²	a ³ P	1	—	3d ³ (² D)4p	s ³ D ^o	1	0.0012	91FOR
3207.8938	31 164.098	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4p ²	g ⁵ G	4	0.0012	91FOR
3209.0219	31 153.143	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4p ²	g ⁵ G	3	0.0012	91FOR
3209.760	31 145.98	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	⁵ F	2	0.004	91FOR
3211.030	31 133.66	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	⁵ F	3	0.004	91FOR
3213.1535	31 113.086	13	3d ² 4s ²	a ³ P	2	—	3d ³ (² D)4p	s ³ D ^o	3	0.0012	91FOR
3214.2373	31 102.596	>15	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	w ³ G ^o	4	0.0012	91FOR
3216.079	31 084.79	2	3d ³ (² P)4s	b ³ P	0	—	3d ² 4s(² F)5p	³ D ^o	1	0.004	91FOR
3216.2003	31 083.613	9	3d ² 4s ²	a ³ P	2	—	3d ³ (² D)4p	s ³ D ^o	2	0.0012	91FOR
3217.9381	31 066.827	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4p ²	g ⁵ G	2	0.0012	91FOR
3218.477	31 061.63	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)5d	h ⁵ G	3	0.004	91FOR
3218.673	31 059.73	3	3d ² 4s ²	a ³ P	2	—	3d ³ (² D)4p	s ³ D ^o	1	0.004	91FOR
3218.995	31 056.63	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.004	91FOR
3219.2070	31 054.582	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4p ²	g ⁵ G	3	0.0012	91FOR
3219.340	31 053.30	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)5d	h ⁵ G	2	0.004	91FOR
3220.297	31 044.07	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5d	h ⁵ G	5	0.004	91FOR
3220.920	31 038.07	2	3d ³ (² P)4s	b ³ P	1	—	3d ² 4s(² F)5p	³ D ^o	2	0.004	91FOR
3221.1481	31 035.869	9	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.0012	91FOR
3221.3775	31 033.659	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4p ²	g ⁵ G	4	0.0012	91FOR
3222.7412	31 020.528	>15	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.0012	91FOR
3223.0045	31 017.993	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	h ⁵ G	6	0.0012	91FOR
3223.5116	31 013.114	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4p ²	g ⁵ G	5	0.0012	91FOR
3224.349	31 005.06	4	3d ³ (² P)4s	b ³ P	2	—	3d ² 4s(² F)5p	³ D ^o	3	0.004	91FOR
3225.361	30 995.33	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)5d	h ⁵ G	2	0.004	91FOR
3226.1221	30 988.020	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4p ²	g ⁵ G	6	0.0012	91FOR
3226.2363	30 986.923	7	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.0012	91FOR
3228.1779	30 968.287	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4p ²	g ⁵ G	2	0.0013	91FOR
3229.648	30 954.19	2	3d ³ (² P)4s	b ³ P	2	—	3d ² 4s(² F)5p	³ D ^o	2	0.004	91FOR
3229.865	30 952.11	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5d	g ⁵ H	4	0.004	91FOR
3230.832	30 942.85	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.004	91FOR
3232.7858	30 924.147	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4p ²	g ⁵ G	3	0.0013	91FOR
3234.901	30 903.93	>15	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	h ⁵ G	5	0.004	91FOR
3236.227	30 891.27	>15	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	g ⁵ H	6	0.004	91FOR
3238.2209	30 872.245	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4p ²	g ⁵ G	4	0.0013	91FOR
3243.5094	30 821.910	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4p ²	g ⁵ G	5	0.0013	91FOR
3243.8023	30 819.127	10	3d ² 4s ²	a ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.0013	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3247.983	30 779.46	6	3d ³ (⁴ F)4s	b ³ F	2	—	3d4s ² 4p	q ³ D ^o	3	0.004	91FOR
3248.60	30 773.63	15	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	3	0.03	09KIL
3249.499	30 765.10	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5d	g ⁵ H	3	0.004	91FOR
3252.369	30 737.95	3	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.004	91FOR
3252.506	30 736.66	3	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.004	91FOR
3258.265	30 682.33	6	3d ³ (² H)4s	a ³ H	6	—	3d ² 4s(² F)5p	³ G ^o	5	0.004	91FOR
3259.045	30 674.99	4	3d ³ (⁴ F)4s	b ³ F	2	—	3d4s ² 4p	q ³ D ^o	2	0.004	91FOR
3259.420	30 671.46	5	3d ³ (⁴ F)4s	b ³ F	3	—	3d4s ² 4p	q ³ D ^o	3	0.004	91FOR
3260.2706	30 663.459	15	3d ² 4s ²	a ³ P	2	—	3d4s ² 4p	w ¹ D ^o	2	0.0013	91FOR
3260.403	30 662.21	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.004	91FOR
3262.644	30 641.15	4	3d ² 4s ²	a ³ P	0	—	3d ³ (² D)4p	x ¹ P ^o	1	0.004	91FOR
3263.841	30 629.92	7	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.004	91FOR
3265.4762	30 614.579	9	3d ³ (⁴ F)4s	b ³ F	2	—	3d4s ² 4p	q ³ D ^o	1	0.0013	91FOR
3267.0664	30 599.678	6	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.0013	91FOR
3267.411	30 596.45	3	3d ² 4s ²	a ¹ D	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.004	91FOR
3268.6002	30 585.320	6	3d ² 4s ²	a ³ P	1	—	3d ³ (² D)4p	x ¹ P ^o	1	0.0013	91FOR
3270.5667	30 566.930	11	3d ³ (⁴ F)4s	b ³ F	3	—	3d4s ² 4p	q ³ D ^o	2	0.0013	91FOR
3273.121	30 543.08	5	3d ³ (² H)4s	a ³ H	5	—	3d ² 4s(² F)5p	³ G ^o	4	0.004	91FOR
3274.0448	30 534.459	8	3d ³ (⁴ F)4s	b ³ F	4	—	3d4s ² 4p	q ³ D ^o	3	0.0013	91FOR
3277.198	30 505.08	3	3d ³ (² H)4s	a ³ H	4	—	3d ² 4s(² F)5p	³ G ^o	3	0.004	91FOR
3277.817	30 499.32	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4p ²	h ⁵ D	3	0.004	91FOR
3278.9688	30 488.607	>15	3d ² 4s ²	a ¹ D	2	—	3d ³ (² D)4p	u ³ F ^o	3	0.0013	91FOR
3280.3871	30 475.426	0	3d ² 4s ²	a ³ P	2	—	3d ³ (² D)4p	x ¹ P ^o	1	0.0013	91FOR
3283.9422	30 442.435	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4p ²	h ⁵ D	4	0.0013	91FOR
3285.029	30 432.36	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4p ²	h ⁵ D	2	0.004	91FOR
3285.237	30 430.44	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4p ²	h ⁵ D	3	0.004	91FOR
3287.216	30 412.12	00	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² P)4p	u ³ P ^o	1	0.004	91FOR
3288.889	30 396.65	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ² 4p ²	h ⁵ D	1	0.004	91FOR
3289.613	30 389.96	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4p ²	h ⁵ D	2	0.004	91FOR
3291.063	30 376.57	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4p ²	h ⁵ D	1	0.004	91FOR
3292.0760	30 367.223	>15	3d ² 4s ²	a ¹ D	2	—	3d4s ² 4p	x ¹ F ^o	3	0.0013	91FOR
3294.8929	30 341.262	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4p ²	h ⁵ D	4	0.0013	91FOR
3295.649	30 334.30	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4p ²	h ⁵ D	1	0.004	91FOR
3296.197	30 329.26	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4p ²	h ⁵ D	3	0.004	91FOR
3296.3655	30 327.708	7	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² F)4p	u ¹ F ^o	3	0.0013	91FOR
3297.087	30 321.07	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4p ²	h ⁵ D	2	0.004	91FOR
3297.251	30 319.56	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4p ²	h ⁵ D	0	0.004	91FOR
3297.784	30 314.66	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4p ²	e ³ D	3	0.004	91FOR
3299.4145	30 299.683	13	3d ² 4s ²	a ¹ D	2	—	3d ³ (² G)4p	v ³ G ^o	3	0.0013	91FOR
3300.603	30 288.77	1	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² P)4p	u ³ P ^o	2	0.004	91FOR
3303.497	30 262.24	3	3d ³ (⁴ P)4s	c ³ P	0	—	3d ² 4s(² F)5p	³ D ^o	1	0.004	91FOR
3305.296	30 245.77	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4p ²	e ³ D	3	0.004	91FOR
3305.759	30 241.53	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4p ²	e ³ D	2	0.004	91FOR
3306.8787	30 231.294	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4p ²	g ⁵ G	6	0.0013	91FOR
3308.3933	30 217.454	15	3d ² 4s ²	a ³ P	0	—	3d ³ (² P)4p	t ³ D ^o	1	0.0013	91FOR
3309.4970	30 207.377	>15	3d ² 4s ²	a ³ P	1	—	3d ³ (² P)4p	t ³ D ^o	2	0.0013	91FOR
3309.7223	30 205.321	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	g ⁵ G	5	0.0013	91FOR
3310.315	30 199.91	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4p ²	e ³ D	1	0.004	91FOR
3310.395	30 199.18	5*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4p ²	e ³ D	2	0.004	91FOR
3310.395	30 199.18	5*	3d ³ (² H)4s	a ³ H	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.004	91FOR
3311.086	30 192.88	3	3d ² 4s ²	a ¹ G	4	—	3d4s ² 4p	q ³ D ^o	3	0.004	91FOR
3312.6866	30 178.293	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	g ⁵ G	4	0.0013	91FOR
3314.4210	30 162.502	>15	3d ² 4s ²	a ³ P	2	—	3d ³ (² P)4p	t ³ D ^o	3	0.0013	91FOR
3314.5149	30 161.647	>15	3d ² 4s ²	a ³ P	1	—	3d ³ (² P)4p	t ³ D ^o	1	0.0013	91FOR
3315.2363	30 155.084	>15	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	g ⁵ G	3	0.0013	91FOR
3316.389	30 144.60	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4p ²	e ³ D	3	0.004	91FOR
3318.3553	30 126.742	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4p ²	g ⁵ G	2	0.0013	91FOR
3320.878	30 103.86	1	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.004	91FOR
3321.5842	30 097.456	>15	3d ² 4s ²	a ³ P	2	—	3d ³ (² P)4p	t ³ D ^o	2	0.0013	91FOR
3323.6655	30 078.610	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)5d	⁵ F	4	0.0013	91FOR
3323.8023	30 077.372	7	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² F)4p	u ¹ F ^o	3	0.0013	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3323.9024	30 076.466	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)5d	⁵ F	5	0.0013	91FOR
3324.611	30 070.06	4	3d ² 4s ²	a ¹ D	2	—	3d ³ (² D2)4p	w ³ P ^o	2	0.004	91FOR
3324.7515	30 068.785	8*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4p ²	g ⁵ G	2	0.0013	91FOR
3324.7515	30 068.785	8*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	g ⁵ G	3	0.0013	91FOR
3325.1468	30 065.211	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4p ²	g ⁵ G	5	0.0013	91FOR
3325.2270	30 064.486	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	g ⁵ G	4	0.0013	91FOR
3325.3685	30 063.206	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)5d	⁵ F	3	0.0013	91FOR
3326.6398	30 051.718	>15	3d ² 4s ²	a ³ P	2	—	3d ³ (² P)4p	t ³ D ^o	1	0.0013	91FOR
3327.3	30 045.77	1 b	3d ³ (² P)4s	b ³ P	1	—	3d ² 4s(⁴ F _{5/2})4f	[1.5] ^o	1	0.02	27RUS2
3328.834	30 031.91	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.004	91FOR
3330.583	30 016.14	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.004	91FOR
3332.899	29 995.28	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ² 4s(⁴ F)5d	⁵ F	1	0.004	91FOR
3333.006	29 994.32	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)5d	⁵ F	3	0.004	91FOR
3333.9084	29 986.201	5	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.0013	91FOR
3334.054	29 984.89		3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)5d	⁵ F	2	0.004	91FOR
3334.098	29 984.50		3d ³ (⁴ F)4s	b ³ F	3	—	3d4s ² 4p	s ³ F ^o	4	0.004	91FOR
3334.319	29 982.51	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4p ²	g ⁵ G	2	0.004	91FOR
3334.884	29 977.43	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)5d	⁵ F	4	0.004	91FOR
3336.619	29 961.84	4	3d ³ (² H)4s	a ³ H	5	—	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	6	0.004	91FOR
3337.382	29 954.99	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4p ²	g ⁵ G	3	0.004	91FOR
3338.8318	29 941.985	8	3d ² 4s ²	a ³ P	2	—	3d ³ (² G)4p	t ³ F ^o	3	0.0013	91FOR
3338.943	29 940.99	2	3d ³ (² G)4s	a ³ G	4	—	3d ³ (⁴ F)5p	³ G ^o	4	0.004	91FOR
3339.513	29 935.88	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.004	91FOR
3339.839	29 932.96	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)5d	⁵ F	1	0.004	91FOR
3340.626	29 925.90	2	3d ³ (⁴ F)4s	b ³ F	2	—	3d4s ² 4p	s ³ F ^o	3	0.004	91FOR
3340.796	29 924.38	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4p ²	g ⁵ G	4	0.004	91FOR
3340.957	29 922.94	3	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (² F)4p	p ³ F ^o	4	0.004	91FOR
3341.5555	29 917.580	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.0013	91FOR
3341.8740	29 914.729	>15 bl	3d ² 4s ²	a ³ F	2	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.0013	91FOR
3342.1474	29 912.282		3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.0013	91FOR
3342.7064	29 907.280	10	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	2	0.0013	91FOR
3343.353	29 901.50	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.004	91FOR
3344.244	29 893.53	00	3d ³ (² G)4s	a ³ G	3	—	3d ³ (⁴ F)5p	³ G ^o	3	0.004	91FOR
3344.290	29 893.12	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)5d	⁵ F	3	0.004	91FOR
3344.610	29 890.26	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.004	91FOR
3344.9201	29 887.488	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.0013	91FOR
3345.291	29 884.17	0	3d ³ (² G)4s	a ³ G	4	—	3d ³ (⁴ F)5p	³ F ^o	4	0.004	91FOR
3347.774	29 862.01	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(² F)4d	³ F	3	0.004	91FOR
3348.219	29 858.04	3	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (² F)4p	p ³ F ^o	3	0.004	91FOR
3348.5316	29 855.254	10	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	1	0.0013	91FOR
3350.5458	29 837.307	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.0013	91FOR
3351.948	29 824.83	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(² F)4d	³ F	4	0.004	91FOR
3352.423	29 820.60	4	3d ³ (² G)4s	a ³ G	5	—	3d ³ (⁴ F)5p	³ F ^o	4	0.004	91FOR
3352.729	29 817.88	6	3d ³ (⁴ F)4s	b ³ F	3	—	3d4s ² 4p	s ³ F ^o	3	0.004	91FOR
3352.9337	29 816.058	12	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	x ³ D ^o	3	0.0013	91FOR
3353.061	29 814.93	2	3d ³ (² G)4s	a ³ G	3	—	3d ³ (⁴ F)5p	³ F ^o	3	0.004	91FOR
3354.066	29 805.99	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d4s ² 4p	s ³ F ^o	2	0.005	91FOR
3354.6336	29 800.950	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.0014	91FOR
3356.1928	29 787.106	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.0014	91FOR
3358.2711	29 768.672	>15	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.0014	91FOR
3358.4803	29 766.818	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4p ²	⁵ F	5	0.0014	91FOR
3360.814	29 746.15	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(² F)4d	f ³ H	4	0.005	91FOR
3360.9894	29 744.597	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.0014	91FOR
3361.2659	29 742.150	>15	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.0014	91FOR
3361.5026	29 740.056		3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.0014	91FOR
3361.8315	29 737.146	>15	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	x ³ D ^o	2	0.0014	91FOR
3362.0975	29 734.794	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4p ²	⁵ F	4	0.0014	91FOR
3362.471	29 731.49	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(² F)4d	³ F	3	0.005	91FOR
3363.031	29 726.54	4	3d ³ (² G)4s	a ³ G	3	—	3d ³ (⁴ F)5p	³ F ^o	2	0.005	91FOR
3366.1445	29 699.046	13 bl	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.0014	91FOR
3366.265	29 697.98	2	3d ³ (⁴ F)4s	b ³ F	3	—	3d4s ² 4p	s ³ F ^o	2	0.005	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3366.829	29 693.01	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	–	3d ² 4s(² F)4d	f ³ H	6	0.005	91FOR
3367.8694	29 683.835	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4p ²	⁵ F	3	0.0014	91FOR
3368.212	29 680.82	3	3d ³ (⁴ F)4s	b ³ F	4	–	3d4s ² 4p	s ³ F ^o	3	0.005	91FOR
3369.040	29 673.52	8	3d ² 4s ²	a ³ F	4	–	3d ³ (⁴ F)4p	x ⁵ D ^o	4	0.005	91FOR
3370.193	29 663.37	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	–	3d ² 4s(² F)4d	³ F	4	0.005	91FOR
3370.4344	29 661.246	>15	3d ² 4s ²	a ³ F	2	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.0014	91FOR
3371.4523	29 652.291	>15	3d ² 4s ²	a ³ F	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	0.0014	91FOR
3373.039	29 638.34	>15	3d ³ (⁴ F)4s	b ³ F	2	–	3d ³ (² H)4p	³ G ^o	3	0.005	91FOR
3373.577	29 633.62	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	–	3d ² 4p ²	⁵ F	4	0.005	91FOR
3374.5981	29 624.650	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	–	3d ² 4p ²	⁵ F	2	0.0014	91FOR
3375.621	29 615.67	5	3d ³ (⁴ F)4s	b ³ F	3	–	3d ³ (² H)4p	³ G ^o	4	0.005	91FOR
3375.689	29 615.08	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4p ²	⁵ F	3	0.005	91FOR
3377.088	29 602.81	2	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4p ²	h ⁵ D	3	0.005	91FOR
3377.4861	29 599.319	>15	3d ² 4s ²	a ³ F	4	–	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.0014	91FOR
3377.5752	29 598.539	>15	3d ² 4s ²	a ³ F	3	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.0014	91FOR
3378.324	29 591.98	3	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ² 4p ²	h ⁵ D	2	0.005	91FOR
3379.0501	29 585.620	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	–	3d ² 4p ²	⁵ F	1	0.0014	91FOR
3379.2111	29 584.210	>15	3d ² 4s ²	a ³ F	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.0014	91FOR
3379.420	29 582.38	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4p ²	⁵ F	2	0.005	91FOR
3381.343	29 565.56	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	–	3d ² 4p ²	⁵ F	1	0.005	91FOR
3381.4376	29 564.731	5	3d ³ (⁴ F)4s	b ³ F	4	–	3d ³ (² H)4p	³ G ^o	5	0.0014	91FOR
3382.3091	29 557.114	>15	3d ² 4s ²	a ³ P	2	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.0014	91FOR
3384.6857	29 536.360	6	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ² 4p ²	h ⁵ D	1	0.0014	91FOR
3385.6606	29 527.856	7	3d ² 4s ²	a ³ F	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.0014	91FOR
3385.9414	29 525.407	>15	3d ² 4s ²	a ³ F	4	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.0014	91FOR
3386.185	29 523.28	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4p ²	⁵ F	1	0.005	91FOR
3387.285	29 513.70	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	–	3d ² 4p ²	⁵ F	3	0.005	91FOR
3387.314	29 513.44	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4p ²	⁵ F	2	0.005	91FOR
3388.661	29 501.71	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	–	3d ² 4s(² F)4d	f ³ H	6	0.005	91FOR
3389.611	29 493.44	6	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4p ²	h ⁵ D	2	0.005	91FOR
3390.6781	29 484.162	13	3d ² 4s ²	a ³ P	1	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.0014	91FOR
3391.310	29 478.67	0	3d ³ (⁴ F)4s	b ³ F	4	–	3d ³ (² H)4p	³ G ^o	4	0.005	91FOR
3392.7096	29 466.508	15	3d ² 4s ²	a ¹ G	4	–	3d ³ (² G)4p	v ¹ F ^o	3	0.0014	91FOR
3394.566	29 450.39	>15	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ² 4p ²	h ⁵ D	3	0.005	91FOR
3398.288	29 418.14	2	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4p ²	e ³ D	3	0.005	91FOR
3398.6303	29 415.176	12	3d ² 4s ²	a ³ P	0	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.0014	91FOR
3399.033	29 411.69	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4s(⁴ F)5d	h ⁵ G	3	0.005	91FOR
3400.1572	29 401.967	7	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ² 4p ²	e ³ D	1	0.0014	91FOR
3400.230	29 401.34	3	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ² 4p ²	e ³ D	2	0.005	91FOR
3401.799	29 387.78	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	–	3d ² 4s(⁴ F)5d	h ⁵ G	2	0.005	91FOR
3403.3658	29 374.249	11	3d ² 4s ²	a ³ P	2	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.0014	91FOR
3404.699	29 362.75	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	–	3d ² 4s(² F)4d	³ G	5	0.005	91FOR
3405.0903	29 359.373	11	3d ² 4s ²	a ³ P	1	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.0014	91FOR
3411.6718	29 302.737	9	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4p ²	e ³ D	2	0.0014	91FOR
3415.9856	29 265.734	9	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ² 4p ²	e ³ D	3	0.0014	91FOR
3416.957	29 257.41	8 bl	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	0.005	91FOR
3417.894	29 249.39	8	3d ² 4s ²	a ³ P	2	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.005	91FOR
3420.962	29 223.16	2	3d ² 4s ²	a ¹ G	4	–	3d ³ (² H)4p	³ G ^o	5	0.005	91FOR
3421.488	29 218.67	2	3d ³ (² G)4s	a ³ G	4	–	3d ² 4s(⁴ F)5p	³ G ^o	5	0.005	91FOR
3423.1673	29 204.337	6	3d ³ (⁴ F)4s	b ³ F	3	–	3d ³ (⁴ P)4p	r ³ D ^o	3	0.0014	91FOR
3428.104	29 162.28	3	3d ² 4s ²	a ³ P	1	–	3d ³ (² D2)4p	u ³ F ^o	2	0.005	91FOR
3428.9469	29 155.114	9	3d ³ (² G)4s	a ³ G	5	–	3d ² 4s(⁴ F)5p	³ G ^o	5	0.0014	91FOR
3429.658	29 149.07	0*	3d ³ (² G)4s	a ³ G	5	–	3d ³ (⁴ F)5p	⁵ F ^o	4	0.005	91FOR
3429.658	29 149.07	0*	3d ³ (² G)4s	a ³ G	3	–	3d ² 4s(⁴ F)5p	³ G ^o	4	0.005	91FOR
3430.5339	29 141.627	5	3d ² 4s ²	a ³ P	2	–	3d ³ (² D2)4p	u ³ F ^o	3	0.0014	91FOR
3430.8705	29 138.768	6	3d ³ (⁴ F)4s	b ³ F	2	–	3d ³ (⁴ P)4p	r ³ D ^o	2	0.0014	91FOR
3431.066	29 137.11	3	3d ² 4s ²	a ¹ G	4	–	3d ³ (² H)4p	³ G ^o	4	0.005	91FOR
3431.313	29 135.01	2	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ² 4s(⁴ F)5d	⁵ F	1	0.005	91FOR
3435.4057	29 100.302	8	3d ³ (² G)4s	a ³ G	4	–	3d ² 4s(⁴ F)5p	³ G ^o	4	0.0014	91FOR
3436.815	29 088.37	2	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4s(⁴ F)5d	⁵ F	2	0.005	91FOR
3437.511	29 082.48	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	–	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.005	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3439.3023	29 067.333	13	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.0014	91FOR
3440.864	29 054.14	0	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.005	91FOR
3441.074	29 052.37	1	3d ² 4s ²	a ³ P	2	—	3d ³ (² D2)4p	u ³ F ^o	2	0.005	91FOR
3441.160	29 051.64	6	3d ² 4s ²	a ¹ G	4	—	3d ³ (² H)4p	³ G ^o	3	0.005	91FOR
3441.6503	29 047.503	8	3d ³ (² G)4s	a ³ G	3	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.0014	91FOR
3441.813	29 046.13	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.005	91FOR
3442.927	29 036.73	2	3d ³ (² G)4s	a ³ G	5	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.005	91FOR
3443.6427	29 030.698	11	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.0014	91FOR
3444.4068	29 024.258	>15	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ P)4p	r ³ D ^o	1	0.0014	91FOR
3444.879	29 020.28	4	3d ² 4s ²	a ³ P	2	—	3d ² 4s ² 4p	x ¹ F ^o	3	0.005	91FOR
3445.138	29 018.10	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.005	91FOR
3445.546	29 014.66	5	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ P)4p	w ⁵ D ^o	4	0.005	91FOR
3447.430	28 998.81	3	3d ³ (² G)4s	a ³ G	4	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.005	91FOR
3447.789	28 995.79	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.005	91FOR
3448.2519	28 991.894	6	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.0014	91FOR
3449.8717	28 978.282	5	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.0014	91FOR
3450.002	28 977.19	00	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4p ²	h ⁵ D	2	0.005	91FOR
3450.745	28 970.95	5	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ P)4p	w ⁵ D ^o	1	0.005	91FOR
3450.918	28 969.50	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(² F)4d	³ F	4	0.005	91FOR
3452.915	28 952.74	2	3d ² 4s ²	a ³ P	2	—	3d ³ (² G)4p	v ³ G ^o	3	0.005	91FOR
3453.550	28 947.42	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.005	91FOR
3453.649	28 946.59	5	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ P)4p	w ⁵ D ^o	0	0.005	91FOR
3454.1581	28 942.323	14	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.0014	91FOR
3454.6976	28 937.803	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.0014	91FOR
3455.3551	28 932.297	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.0014	91FOR
3455.4221	28 931.736	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.0014	91FOR
3455.7507	28 928.985	6	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	1	0.0014	91FOR
3456.6482	28 921.474	12	3d ² 4s ²	a ¹ G	4	—	3d ³ (² H)4p	y ¹ H ^o	5	0.0014	91FOR
3457.2936	28 916.075	8	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.0014	91FOR
3457.4912	28 914.423	10	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ³ (⁴ P)4p	w ⁵ D ^o	4	0.0014	91FOR
3458.0041	28 910.134	9	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.0014	91FOR
3458.137	28 909.02	6	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	h ⁵ D	2	0.005	91FOR
3459.414	28 898.35	9	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4p ²	h ⁵ D	3	0.005	91FOR
3460.481	28 889.44	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.005	91FOR
3463.1964	28 866.791	7	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.0014	91FOR
3464.815	28 853.31	0	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	h ⁵ D	1	0.005	91FOR
3464.912	28 852.50	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(² F)4d	e ¹ G	4	0.005	91FOR
3465.033	28 851.49	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.005	91FOR
3467.175	28 833.67	3	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	e ³ D	3	0.005	91FOR
3467.2578	28 832.979		3d ² 4s ²	a ³ P	1	—	3d ³ (² D2)4p	w ³ P ^o	2	0.0014	91FOR
3467.6454	28 829.756		3d ³ (² H)4s	a ³ H	6	—	3d ³ (² F)4p	³ G ^o	5	0.0014	91FOR
3469.061	28 817.99	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.005	91FOR
3469.326	28 815.79	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(² F)4d	³ F	2	0.005	91FOR
3472.173	28 792.16	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.005	91FOR
3472.559	28 788.96	1	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4p ²	h ⁵ D	2	0.005	91FOR
3472.781	28 787.12	6	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4p ²	e ³ D	1	0.005	91FOR
3472.859	28 786.48	3	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4p ²	e ³ D	2	0.005	91FOR
3473.112	28 784.38	00	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4p ²	⁵ F	2	0.005	91FOR
3475.759	28 762.46	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(² F)4d	³ F	3	0.005	91FOR
3476.4370	28 756.850	9	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.0015	91FOR
3477.865	28 745.04	0	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(² F)4d	f ³ H	6	0.005	91FOR
3478.9151	28 736.367	12	3d ² 4s ²	a ³ P	0	—	3d ³ (² D2)4p	w ³ P ^o	1	0.0015	91FOR
3480.201	28 725.75	2	3d ² 4s ²	a ¹ G	4	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.005	91FOR
3480.249	28 725.35	2	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4p ²	⁵ F	1	0.005	91FOR
3480.5252	28 723.074	15	3d ² 4s ²	a ³ P	2	—	3d ³ (² D2)4p	w ³ P ^o	2	0.0015	91FOR
3481.030	28 718.91	3	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	e ³ D	1	0.005	91FOR
3481.1100	28 718.249	7	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	e ³ D	2	0.0015	91FOR
3481.6681	28 713.645	8	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4p ²	e ³ D	3	0.0015	91FOR
3482.9870	28 702.773	7	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ P)4p	y ⁵ F ^o	3	0.0015	91FOR
3483.720	28 696.73	5	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² F)4p	³ G ^o	4	0.005	91FOR
3484.761	28 688.16	2	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² F)4p	³ G ^o	3	0.005	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3485.043	28 685.84	4	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4p ²	⁵ F	2	0.005	91FOR
3485.6844	28 680.562	11	3d ² 4s ²	a ³ P	1	—	3d ³ (² D2)4p	w ³ P ^o	1	0.0015	91FOR
3487.801	28 663.16	0	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² D2)4p	w ¹ F ^o	3	0.005	91FOR
3490.761	28 638.85	7	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	y ⁵ F ^o	2	0.005	91FOR
3491.244	28 634.89	13 bl	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4p ²	⁵ F	3	0.005	91FOR
3493.2758	28 618.236	11	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	y ⁵ F ^o	4	0.0015	91FOR
3495.7491	28 597.989	13	3d ² 4s ²	a ³ P	1	—	3d ³ (² D2)4p	w ³ P ^o	0	0.0015	91FOR
3495.9551	28 596.304	10	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	y ⁵ F ^o	1	0.0015	91FOR
3499.0963	28 570.633	12	3d ² 4s ²	a ³ P	2	—	3d ³ (² D2)4p	w ³ P ^o	1	0.0015	91FOR
3503.7539	28 532.655	7	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	y ⁵ F ^o	3	0.0015	91FOR
3504.7678	28 524.401	8	3d ³ (² G)4s	a ³ G	5	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.0015	91FOR
3506.6393	28 509.178	13	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	y ⁵ F ^o	5	0.0015	91FOR
3511.6250	28 468.703	11	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	y ⁵ F ^o	2	0.0015	91FOR
3516.8319	28 426.554	10	3d ³ (² G)4s	a ³ G	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.0015	91FOR
3519.9349	28 401.495	14	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	y ⁵ F ^o	4	0.0015	91FOR
3520.1619	28 399.664	>15	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	4	0.0015	91FOR
3525.1573	28 359.421	10	3d ³ (² G)4s	a ³ G	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.0015	91FOR
3526.5706	28 348.056	5	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² 4s(² F)5p	⁵ D ^o	3	0.0015	91FOR
3530.5755	28 315.900	7	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	y ⁵ F ^o	3	0.0015	91FOR
3534.064	28 287.95	3	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.005	91FOR
3534.699	28 282.87	0	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d4s ² 4p	q ³ D ^o	3	0.005	91FOR
3536.199	28 270.87	2	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.005	91FOR
3539.901	28 241.31	3	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.005	91FOR
3542.5309	28 220.342	8	3d ³ (² H)4s	a ³ H	4	—	3d ² 4s(² F)5p	u ¹ G ^o	4	0.0015	91FOR
3543.558	28 212.16	3	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.005	91FOR
3544.377	28 205.64	1	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d4s ² 4p	q ³ D ^o	3	0.005	91FOR
3547.028	28 184.56	>15	3d ² 4s ²	a ¹ G	4	—	3d ³ (² D2)4p	w ¹ F ^o	3	0.005	91FOR
3547.110	28 183.91		3d ² 4s ²	a ¹ D	2	—	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.005	91FOR
3548.776	28 170.68	2	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	0	0.005	91FOR
3549.430	28 165.49	0	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.005	91FOR
3549.615	28 164.02	2	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.005	91FOR
3550.696	28 155.45	0	3d ³ (² D2)4s	b ¹ D	2	—	3d ³ (² F)4p	u ¹ F ^o	3	0.005	91FOR
3550.857	28 154.17	1	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² D2)4p	s ³ D ^o	2	0.005	91FOR
3553.869	28 130.31	4	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² D2)4p	s ³ D ^o	1	0.005	91FOR
3556.383	28 110.43	2	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4p ²	⁵ F	1	0.005	91FOR
3557.524	28 101.41	00	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	⁵ F	2	0.005	91FOR
3558.645	28 092.56	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ F	3	0.005	91FOR
3560.795	28 075.60	4	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² D2)4p	s ³ D ^o	3	0.005	91FOR
3564.5326	28 046.160	7	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² D2)4p	s ³ D ^o	2	0.0015	91FOR
3565.031	28 042.24	12 bl	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	⁵ F	1	0.005	91FOR
3565.714	28 036.87	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ F	2	0.005	91FOR
3570.609	27 998.43	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ F	1	0.005	91FOR
3571.182	27 993.94	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ³ (⁴ F)4d	⁵ F	3	0.005	91FOR
3574.2398	27 969.992	14	3d ³ (² G)4s	b ¹ G	4	—	3d ² 4s(² F)5p	u ¹ G ^o	4	0.0015	91FOR
3574.666	27 966.66	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ³ (⁴ F)4d	f ⁵ H	3	0.005	91FOR
3578.256	27 938.60	10	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² D2)4p	s ³ D ^o	3	0.005	91FOR
3578.8439	27 934.010	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ F	4	0.0015	91FOR
3579.870	27 926.00	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ³ (⁴ F)4d	f ⁵ H	4	0.005	91FOR
3584.775	27 887.79	8	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.005	91FOR
3587.310	27 868.09	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ³ (⁴ F)4d	f ⁵ H	3	0.005	91FOR
3587.6469	27 865.470	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	f ⁵ H	5	0.0015	91FOR
3587.8944	27 863.548	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ F	3	0.0015	91FOR
3588.123	27 861.77	1	3d ² 4s ²	a ³ P	0	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.005	91FOR
3588.932	27 855.49	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	⁵ F	5	0.005	91FOR
3589.867	27 848.24	3	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.005	91FOR
3594.524	27 812.16	3	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	3	0.005	91FOR
3595.3191	27 806.009	6	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.0016	91FOR
3596.671	27 795.56	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	f ⁵ H	4	0.005	91FOR
3598.1843	27 783.868	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	f ⁵ H	6	0.0016	91FOR
3598.346	27 782.62	1	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (⁴ F)5p	n ³ D ^o	3	0.005	91FOR
3598.7130	27 779.786	>15	3d ² 4s ²	a ¹ D	2	—	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.0016	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3599.647	27 772.58	6 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	⁵ F	4	0.005	91FOR
3601.351	27 759.44	8 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ G	3	0.003	91FOR
3603.8444	27 740.232	14	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.0016	91FOR
3604.101	27 738.26	2	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.005	91FOR
3604.184	27 737.62	00	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	f ⁵ H	3	0.005	91FOR
3604.2805	27 736.876	13	3d ² 4s ²	a ³ F	3	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.0016	91FOR
3606.0351	27 723.380	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ³ (⁴ F)4d	⁵ G	4	0.0016	91FOR
3606.351	27 720.95	1	3d ³ (² D)4s	a ³ D	1	—	3d ² 4s(² P)4p	³ P ^o	1	0.005	91FOR
3606.7788	27 717.664	13	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.0016	91FOR
3607.1211	27 715.034	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ G	2	0.0016	91FOR
3608.145	27 707.17	1	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4p ²	g ⁵ G	3	0.005	91FOR
3608.553	27 704.04	7 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	f ⁵ H	5	0.003	91FOR
3609.5911	27 696.069	6	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.0016	91FOR
3609.811	27 694.38	3	3d ³ (² D)4s	a ³ D	1	—	3d ³ (⁴ F)5p	n ³ D ^o	2	0.005	91FOR
3610.1532	27 691.757	>15	3d ² 4s ²	a ¹ D	2	—	3d ² (³ P)4s4p(³ P ^o)	y ¹ P ^o	1	0.0016	91FOR
3612.2081	27 676.004	5 bl	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ³ (⁴ F)4d	f ⁵ H	7	0.0016	91FOR
3612.2387	27 675.770	7 bl	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ G	5	0.0016	91FOR
3612.818	27 671.33	3	3d ³ (² D)4s	a ³ D	1	—	3d ² 4s(² P)4p	³ P ^o	0	0.005	91FOR
3613.429	27 666.65	2	3d ³ (² D)4s	a ³ D	2	—	3d ² 4s(² P)4p	³ P ^o	1	0.005	91FOR
3613.474	27 666.31	2	3d ³ (² D)4s	a ³ D	3	—	3d ³ (⁴ F)5p	n ³ D ^o	3	0.005	91FOR
3613.5919	27 665.406	10	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	1	0.0016	91FOR
3613.7372	27 664.294	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ³ (⁴ F)4d	⁵ F	5	0.0016	91FOR
3614.1807	27 660.899	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ³ (⁴ F)4d	⁵ G	3	0.0016	91FOR
3616.899	27 640.11	3	3d ³ (² D)4s	a ³ D	2	—	3d ³ (⁴ F)5p	n ³ D ^o	2	0.005	91FOR
3617.2062	27 637.764	5	3d ³ (² D)4s	a ³ D	3	—	3d ² 4s(² P)4p	³ P ^o	2	0.0016	91FOR
3617.677	27 634.17	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	f ⁵ H	4	0.005	91FOR
3619.4559	27 620.586	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	⁵ G	6	0.0016	91FOR
3619.9917	27 616.498	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ³ (⁴ F)4d	⁵ G	2	0.0016	91FOR
3621.018	27 608.67	5 bl	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4p ²	g ⁵ G	3	0.005	91FOR
3622.545	27 597.03	6	3d ³ (² D)4s	a ³ D	1	—	3d ³ (⁴ F)5p	n ³ D ^o	1	0.005	91FOR
3623.0828	27 592.937	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ G	4	0.0016	91FOR
3626.0832	27 570.106	14	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.0016	91FOR
3629.2565	27 546.000	6	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² D)4p	x ¹ P ^o	1	0.0016	91FOR
3629.697	27 542.66	2	3d ³ (² D)4s	a ³ D	2	—	3d ³ (⁴ F)5p	n ³ D ^o	1	0.005	91FOR
3631.3057	27 530.456	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ G	3	0.0016	91FOR
3633.4318	27 514.347	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	⁵ G	5	0.0016	91FOR
3633.633	27 512.82	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ³ (⁴ F)4d	f ⁵ H	5	0.005	91FOR
3635.2054	27 500.923	2	3d ² 4s ²	a ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.0016	91FOR
3635.4625	27 498.978	>15	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.0016	91FOR
3637.9650	27 480.063	>15	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(¹ P ^o)	x ³ D ^o	3	0.0016	91FOR
3638.486	27 476.13	3	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² H)4p	x ³ H ^o	4	0.005	91FOR
3640.2813	27 462.578	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.0016	91FOR
3642.243	27 447.79	3	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4p ²	h ⁵ D	4	0.005	91FOR
3642.6739	27 444.540	>15	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.0016	91FOR
3644.3988	27 431.551	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ³ (⁴ F)4d	⁵ G	4	0.0016	91FOR
3644.6851	27 429.396	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ³ (⁴ F)4d	⁵ G	6	0.0016	91FOR
3646.1960	27 418.030	>15	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.0016	91FOR
3646.7818	27 413.626	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.0016	91FOR
3651.873	27 375.41	0	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² H)4p	x ³ H ^o	5	0.005	91FOR
3652.846	27 368.12	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.005	91FOR
3653.4949	27 363.256	>15	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.0016	91FOR
3654.5899	27 355.058	>15	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.0016	91FOR
3656.996	27 337.06	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(² F)4d	³ F	4	0.005	91FOR
3657.927	27 330.10	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.005	91FOR
3658.0952	27 328.846	>15	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.0016	91FOR
3658.8535	27 323.182	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ³ (⁴ F)4d	⁵ G	5	0.0016	91FOR
3660.298	27 312.40	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.005	91FOR
3660.6292	27 309.929	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.0016	91FOR
3661.711	27 301.86	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.005	91FOR
3662.064	27 299.23	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.005	91FOR
3663.596	27 287.81	7 bl	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.005	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3664.394	27 281.87	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.005	91FOR
3668.524	27 251.16	2	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4p ²	e ³ D	3	0.005	91FOR
3668.9634	27 247.895	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.0016	91FOR
3670.106	27 239.41	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.005	91FOR
3670.578	27 235.91	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(² F)4d	³ F	4	0.005	91FOR
3671.6711	27 227.801	>15	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.0016	91FOR
3674.901	27 203.87	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)4d	g ⁵ F	2	0.005	91FOR
3677.7634	27 182.699	8	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² G)4p	x ¹ G ^o	4	0.0016	91FOR
3679.134	27 172.57	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.005	91FOR
3679.7491	27 168.031	8	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² P)4p	t ³ D ^o	2	0.0016	91FOR
3681.2645	27 156.847	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)4d	g ⁵ F	1	0.0016	91FOR
3685.202	27 127.83	>15 bl	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(² F)4d	f ³ H	4	0.005	91FOR
3685.5843	27 125.018	11	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² P)4p	t ³ D ^o	3	0.0016	91FOR
3685.9522	27 122.311	14	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² P)4p	t ³ D ^o	1	0.0016	91FOR
3686.7296	27 116.592	11	3d ³ (² P)4s	b ³ P	1	—	3d ² 4s(² P)4p	³ P ^o	2	0.0016	91FOR
3687.3396	27 112.106	13	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.0016	91FOR
3688.2614	27 105.330	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	g ⁵ F	2	0.0016	91FOR
3689.406	27 096.92	3	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ³ (⁴ F)4d	⁵ F	2	0.005	91FOR
3689.6649	27 095.020	7	3d ³ (² P)4s	b ³ P	0	—	3d ² 4s(² P)4p	³ P ^o	1	0.0016	91FOR
3689.9142	27 093.189	>15	3d ² 4s ²	a ³ F	4	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.0016	91FOR
3691.071	27 084.70	3	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.005	91FOR
3694.4406	27 059.996	15	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² P)4p	t ³ D ^o	2	0.0016	91FOR
3694.663	27 058.37	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ³ (⁴ F)4d	⁵ F	1	0.005	91FOR
3695.721	27 050.62	0	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.005	91FOR
3696.8869	27 042.090	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.0016	91FOR
3697.3274	27 038.868	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ³ (⁴ F)4d	⁵ F	2	0.0016	91FOR
3698.1729	27 032.687	11	3d ³ (² P)4s	b ³ P	2	—	3d ² 4s(² P)4p	³ P ^o	2	0.0016	91FOR
3698.430	27 030.81	8	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² G)4p	t ³ F ^o	4	0.005	91FOR
3698.657	27 029.15	6*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)4d	³ D	3	0.005	91FOR
3698.657	27 029.15	6*	3d ³ (² P)4s	b ³ P	1	—	3d ² 4s(² P)4p	³ P ^o	1	0.005	91FOR
3699.334	27 024.20	2	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4p ²	g ⁵ G	3	0.005	91FOR
3700.041	27 019.04	13	3d ³ (² H)4s	a ³ H	6	—	3d ³ (⁴ F)5p	³ G ^o	5	0.005	91FOR
3700.928	27 012.56	3	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² G)4p	t ³ F ^o	3	0.005	91FOR
3701.5270	27 008.192	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ³ (⁴ F)4d	⁵ F	3	0.0016	91FOR
3701.819	27 006.06	0	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4p ²	g ⁵ G	2	0.005	91FOR
3702.145	27 003.68	2	3d ³ (² H)4s	a ³ H	4	—	3d ³ (⁴ F)5p	³ F ^o	4	0.005	91FOR
3702.2899	27 002.627	14	3d ² 4s ²	a ³ P	0	—	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.0016	91FOR
3702.595	27 000.40	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ³ (⁴ F)4d	⁵ F	1	0.005	91FOR
3702.9830	26 997.573	12	3d ² 4s ²	a ¹ G	4	—	3d ³ (² H)4p	x ³ H ^o	4	0.0016	91FOR
3704.2914	26 988.037	14	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² P)4p	t ³ D ^o	3	0.0016	91FOR
3705.4695	26 979.457	6	3d ³ (² P)4s	b ³ P	1	—	3d ² 4s(² P)4p	³ P ^o	0	0.0016	91FOR
3707.4798	26 964.828	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ³ (⁴ F)4d	⁵ F	4	0.0016	91FOR
3707.5271	26 964.484	>15*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.0016	91FOR
3707.5271	26 964.484	>15*	3d ³ (² H)4s	a ³ H	4	—	3d ³ (⁴ F)5p	³ G ^o	3	0.0016	91FOR
3708.405	26 958.10	1	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.006	91FOR
3708.636	26 956.422	4 b	3d ³ (² H)4s	a ³ H	5	—	3d ³ (⁴ F)5p	³ G ^o	4	0.002	64GIU/THE
3709.1627	26 952.594	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ³ (⁴ F)4d	⁵ F	2	0.0017	91FOR
3709.9572	26 946.822	15	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.0017	91FOR
3710.1782	26 945.217	8	3d ³ (² P)4s	b ³ P	2	—	3d ² 4s(² P)4p	³ P ^o	1	0.0017	91FOR
3710.868	26 940.21	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ³ (⁴ F)4d	f ⁵ H	4	0.006	91FOR
3713.7161	26 919.548	9	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (² G)4p	t ³ F ^o	2	0.0017	91FOR
3715.3683	26 907.578	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)4d	⁵ F	5	0.0017	91FOR
3715.7908	26 904.518	12	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² G)4p	t ³ F ^o	3	0.0017	91FOR
3716.459	26 899.68	8	3d ³ (² H)4s	a ³ H	5	—	3d ³ (⁴ F)5p	³ F ^o	4	0.006	91FOR
3716.929	26 896.28	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ³ (⁴ F)4d	f ⁵ H	5	0.006	91FOR
3717.183	26 894.44		3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ³ (⁴ F)4d	⁵ F	3	0.006	91FOR
3717.2564	26 893.911		3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² G)4p	t ³ F ^o	4	0.0017	91FOR
3717.3916	26 892.933	>15	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.0017	91FOR
3718.382	26 885.77	6	3d ³ (² H)4s	a ³ H	4	—	3d ³ (⁴ F)5p	³ F ^o	3	0.006	91FOR
3720.3791	26 871.338	>15	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)4d	g ⁵ F	5	0.0017	91FOR
3721.636	26 862.26	14 bl	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ³ (² P)4p	x ³ S ^o	1	0.006	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3722.044	26 859.32	2	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4p ²	⁵ F	4	0.006	91FOR
3722.249	26 857.84	2	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.006	91FOR
3722.5703	26 855.521	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.0017	91FOR
3724.5689	26 841.111	>15	3d ² 4s ²	a ¹ G	4	—	3d ³ (² G)4p	x ¹ G ^o	4	0.0017	91FOR
3725.1533	26 836.900	14	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.0017	91FOR
3725.284	26 835.96	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)4d	f ⁵ H	6	0.006	91FOR
3725.581	26 833.82	3	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	—	3d ² 4p ²	h ⁵ D	2	0.006	91FOR
3726.849	26 824.69	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)4d	⁵ F	4	0.006	91FOR
3727.050	26 823.24	5	3d ² 4s ²	a ¹ D	2	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.006	91FOR
3728.684	26 811.49	7	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² G)4p	t ³ F ^o	2	0.006	91FOR
3729.8065	26 803.420	>15	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.0017	91FOR
3730.7700	26 796.498	7	3d ³ (² P)4s	b ³ P	1	—	3d ³ (⁴ P)4p	w ³ S ^o	1	0.0017	91FOR
3733.321	26 778.19	5	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	—	3d ² 4p ²	h ⁵ D	1	0.006	91FOR
3733.7733	26 774.945	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ³ (⁴ F)4d	⁵ G	2	0.0017	91FOR
3734.8091	26 767.519	11	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² G)4p	t ³ F ^o	3	0.0017	91FOR
3735.6609	26 761.416	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ³ (⁴ F)4d	⁵ G	3	0.0017	91FOR
3736.392	26 756.18	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)4d	f ⁵ H	5	0.006	91FOR
3738.9922	26 737.573	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ³ (⁴ F)4d	⁵ G	4	0.0017	91FOR
3740.713	26 725.27		3d ² 4s ²	a ¹ D	2	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.006	91FOR
3741.0597	26 722.797	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.0017	91FOR
3741.14	26 722.24	1	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4p ²	³ F	5	0.04	09KIL
3741.8727	26 716.991	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ³ (⁴ F)4d	⁵ G	2	0.0017	91FOR
3742.495	26 712.55	5 q	3d ³ (² P)4s	b ³ P	2	—	3d ³ (⁴ P)4p	w ³ S ^o	1	0.004	91FOR
3743.3323	26 706.574	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ³ (⁴ F)4d	⁵ G	5	0.0017	91FOR
3745.829	26 688.77	1	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.006	91FOR
3747.7508	26 675.088	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ³ (⁴ F)4d	⁵ G	3	0.0017	91FOR
3748.0893	26 672.679	>15	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)4d	⁵ G	6	0.0017	91FOR
3752.063	26 644.43	7	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(² F)4d	f ¹ F	3	0.006	91FOR
3752.249	26 643.11	5	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	—	3d ² 4p ²	e ³ D	2	0.006	91FOR
3752.410	26 641.97	3	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.006	91FOR
3752.8588	26 638.782	>15	3d ² 4s ²	a ³ F	4	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.0017	91FOR
3753.6332	26 633.286	>15	3d ² 4s ²	a ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.0017	91FOR
3754.412	26 627.76	11	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.006	91FOR
3754.9776	26 623.751	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ³ (⁴ F)4d	⁵ G	4	0.0017	91FOR
3763.082	26 566.42	8 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)4d	⁵ G	5	0.004	91FOR
3763.3683	26 564.393	7	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	y ³ G ^o	3	0.0017	91FOR
3765.606	26 548.61	6	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.006	91FOR
3766.4415	26 542.718	13	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.0017	91FOR
3769.058	26 524.29	1	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(² F)4d	f ¹ F	3	0.006	91FOR
3769.7212	26 519.626	8	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.0017	91FOR
3770.414	26 514.75	8 bl	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(² F)4d	³ F	3	0.006	91FOR
3771.047	26 510.30	1	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	—	3d ² 4p ²	h ⁵ D	2	0.006	91FOR
3771.171	26 509.43	6	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(² F)4d	³ F	4	0.006	91FOR
3771.6511	26 506.057	>15	3d ² 4s ²	a ³ F	4	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.0017	91FOR
3773.319	26 494.34	3	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	y ³ G ^o	2	0.006	91FOR
3774.3248	26 487.281	10	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	y ⁵ G ^o	4	0.0017	91FOR
3777.157	26 467.42	5	3d ³ (² G)4s	a ³ G	4	—	3d4s ² 4p	s ³ F ^o	4	0.006	91FOR
3779.0337	26 454.277	8	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(² F)4d	³ F	2	0.0017	91FOR
3780.3847	26 444.823	8	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.0017	91FOR
3780.495	26 444.05	3	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(⁴ F)5d	g ⁵ H	4	0.006	91FOR
3782.1055	26 432.791	12	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.0017	91FOR
3782.566	26 429.57	0	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.006	91FOR
3783.236	26 424.89	7	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.006	91FOR
3784.4933	26 416.114	8	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(² F)4d	³ F	3	0.0017	91FOR
3786.0425	26 405.305	>15	3d ² 4s ²	a ¹ D	2	—	3d ² (¹ D)4s4p(¹ P ^o)	z ¹ P ^o	1	0.0017	91FOR
3786.2550	26 403.823	>15	3d ³ (² G)4s	a ³ G	5	—	3d4s ² 4p	s ³ F ^o	4	0.0017	91FOR
3786.730	26 400.51	3	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.006	91FOR
3787.618	26 394.32	8	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	y ⁵ G ^o	3	0.006	91FOR
3788.8001	26 386.087	11	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	y ³ G ^o	5	0.0017	91FOR
3789.2940	26 382.648	14	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.0017	91FOR
3791.546	26 366.98	2	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(⁴ F)5d	g ⁵ H	6	0.006	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3792.9740	26 357.052	10	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ² 4s(² F)4d	³ F	4	0.0017	91FOR
3793.678	26 352.16	4	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² 4s(² P)4p	³ P ^o	2	0.006	91FOR
3794.055	26 349.54	5	3d ³ (² G)4s	a ³ G	3	–	3d4s ² 4p	s ³ F ^o	3	0.006	91FOR
3794.7420	26 344.772	12	3d ² 4s ²	a ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	y ¹ P ^o	1	0.0017	91FOR
3795.8934	26 336.781	14	3d ³ (⁴ F)4s	b ³ F	3	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.0017	91FOR
3797.708	26 324.20	2	3d ² 4s ²	a ³ F	3	–	3d ³ (⁴ F)4p	y ⁵ G ^o	2	0.006	91FOR
3798.3086	26 320.035	13	3d ³ (⁴ F)4s	b ³ F	2	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.0017	91FOR
3801.0805	26 300.842	13	3d ³ (² G)4s	a ³ G	4	–	3d4s ² 4p	s ³ F ^o	3	0.0017	91FOR
3801.1616	26 300.281	2	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4s(² F)4d	f ³ H	4	0.0017	91FOR
3801.5549	26 297.560	11	3d ³ (² P)4s	a ¹ P	1	–	3d ³ (² P)4p	¹ P ^o	1	0.0017	91FOR
3801.908	26 295.12	7	3d ³ (⁴ P)4s	c ³ P	2	–	3d ³ (⁴ F)5p	n ³ D ^o	3	0.006	91FOR
3803.416	26 284.69	7	3d ³ (² H)4s	a ³ H	6	–	3d ³ (⁴ F)5p	⁵ F ^o	5	0.006	91FOR
3805.0978	26 273.075	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	–	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.0017	91FOR
3805.188	26 272.45	5	3d ³ (⁴ P)4s	c ³ P	0	–	3d ² 4s(² P)4p	³ P ^o	1	0.006	91FOR
3805.462	26 270.56	12*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	–	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.006	91FOR
3805.462	26 270.56	12*	3d ² 4s ²	a ³ F	4	–	3d ³ (⁴ F)4p	y ⁵ G ^o	4	0.006	91FOR
3806.043	26 266.55	7	3d ³ (⁴ P)4s	c ³ P	2	–	3d ² 4s(² P)4p	³ P ^o	2	0.006	91FOR
3806.305	26 264.74	5	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² 4s(² P)4p	³ P ^o	1	0.006	91FOR
3806.4420	26 263.797	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	–	3d ² 4s(⁴ F)4d	g ⁵ F	2	0.0017	91FOR
3806.5857	26 262.806	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	–	3d ² 4s(⁴ F)4d	³ H	6	0.0017	91FOR
3806.7022	26 262.002	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	–	3d ² 4s(⁴ F)4d	³ H	5	0.0017	91FOR
3807.1998	26 258.570	10	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ² 4s(² F)4d	f ³ H	5	0.0017	91FOR
3807.7549	26 254.742	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	–	3d ² 4s(⁴ F)4d	g ⁵ F	5	0.0017	91FOR
3810.0198	26 239.135	1	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	–	3d ² 4s(⁴ F)4d	³ H	4	0.0017	91FOR
3810.156	26 238.20	5	3d ³ (⁴ P)4s	c ³ P	1	–	3d ³ (⁴ F)5p	n ³ D ^o	2	0.006	91FOR
3810.727	26 234.27	6 q	3d ³ (² H)4s	a ³ H	5	–	3d ² 4s(⁴ F)5p	³ G ^o	5	0.004	91FOR
3811.4005	26 229.630	13	3d ³ (² G)4s	a ³ G	3	–	3d4s ² 4p	s ³ F ^o	2	0.0017	91FOR
3811.617	26 228.14	4	3d ³ (² H)4s	a ³ H	5	–	3d ³ (⁴ F)5p	⁵ F ^o	4	0.006	91FOR
3812.818	26 219.88	5	3d ³ (² H)4s	a ³ H	4	–	3d ² 4s(⁴ F)5p	³ G ^o	4	0.006	91FOR
3813.2691	26 216.777	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	–	3d ² 4s(⁴ F)4d	g ⁵ F	1	0.0017	91FOR
3813.516	26 215.08	4	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² 4s(² P)4p	³ P ^o	0	0.006	91FOR
3813.877	26 212.60	2	3d ³ (⁴ F)4s	b ³ F	3	–	3d ³ (² D)4p	u ³ F ^o	4	0.006	91FOR
3813.936	26 212.19	2	3d ³ (⁴ F)4s	b ³ F	2	–	3d ³ (² D)4p	u ³ F ^o	3	0.006	91FOR
3814.8603	26 205.842	53	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	–	3d ² 4s(⁴ F)4d	g ⁵ F	2	0.0017	91FOR
3817.6415	26 186.751	80	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	–	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.0017	91FOR
3818.1988	26 182.929	99	3d ³ (² H)4s	a ³ H	6	–	3d ² 4s(⁴ F)5p	³ G ^o	5	0.0017	91FOR
3821.7214	26 158.796	24	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	–	3d ² 4s(⁴ F)4d	g ⁵ F	1	0.0018	91FOR
3822.0227	26 156.734	120	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	–	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.0018	91FOR
3822.8606	26 151.001	20	3d ³ (² D)4s	b ¹ D	2	–	3d ³ (² P)4p	¹ P ^o	1	0.0018	91FOR
3826.9685	26 122.931	59	3d ³ (⁴ F)4s	b ³ F	2	–	3d ³ (² D)4p	u ³ F ^o	2	0.0018	91FOR
3827.4684	26 119.519	38	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	–	3d ² 4s(⁴ F)4d	g ⁵ F	2	0.0018	91FOR
3827.6362	26 118.374	58	3d ³ (² H)4s	a ³ H	4	–	3d ² 4s(⁴ F)5p	³ G ^o	3	0.0018	91FOR
3828.0098	26 115.825	80	3d ³ (² H)4s	a ³ H	5	–	3d ² 4s(⁴ F)5p	³ G ^o	4	0.0018	91FOR
3828.1875	26 114.613	200	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	–	3d ² 4s(⁴ F)4d	g ⁵ F	5	0.0018	91FOR
3829.0523	26 108.715	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	–	3d ² 4s(⁴ F)4d	³ H	4	0.0018	91FOR
3829.7225	26 104.146	86	3d ³ (⁴ F)4s	b ³ F	3	–	3d ³ (² D)4p	u ³ F ^o	3	0.0018	91FOR
3831.6834	26 090.787	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	–	3d ⁴	³ F ¹	3	0.0018	91FOR
3832.0440	26 088.332	14	3d ³ (² P)4s	b ³ P	2	–	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.0018	91FOR
3833.1841	26 080.573	100	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ² 4s(² F)4d	³ G	3	0.0018	91FOR
3833.6745	26 077.237	120	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4s(² F)4d	³ G	4	0.0018	91FOR
3833.9116	26 075.624	120	3d ³ (⁴ F)4s	b ³ F	4	–	3d ³ (² D)4p	u ³ F ^o	4	0.0018	91FOR
3834.3082	26 072.927	42	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	–	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.0018	91FOR
3836.7669	26 056.219	150	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ² 4s(² F)4d	³ G	5	0.0018	91FOR
3839.0022	26 041.048	6	3d ² 4s ²	a ¹ G	4	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.0018	91FOR
3840.3242	26 032.084	27	3d ³ (⁴ P)4s	c ³ P	1	–	3d ³ (⁴ P)4p	w ³ S ^o	1	0.0018	91FOR
3841.6217	26 023.292	43	3d ³ (⁴ F)4s	b ³ F	2	–	3d ³ (² G)4p	v ³ G ^o	3	0.0018	91FOR
3842.3456	26 018.389	11	3d ³ (² P)4s	b ³ P	1	–	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.0018	91FOR
3842.6100	26 016.599	31	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	–	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.0018	91FOR
3842.8642	26 014.878	5	3d ³ (⁴ F)4s	b ³ F	3	–	3d ³ (² D)4p	u ³ F ^o	2	0.0018	91FOR
3843.1542	26 012.915	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	–	3d ² 4s(⁴ F)4d	g ³ F	3	0.0018	91FOR
3845.0946	25 999.788	35	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	–	3d ² 4s(⁴ F)4d	³ G	4	0.0018	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3846.4391	25 990.700	160	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)4d	³ G	3	0.0018	91FOR
3847.7314	25 981.971	9	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(² F)4d	³ G	3	0.0018	91FOR
3847.9894	25 980.229	4	3d ³ (² P)4s	b ³ P	0	—	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.0018	91FOR
3848.3091	25 978.071	71	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (² G)4p	v ³ G ^o	4	0.0018	91FOR
3852.9926	25 946.494	55	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ P)4p	w ³ S ^o	1	0.0018	91FOR
3853.0465	25 946.131	170	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ H	3	0.0018	91FOR
3853.7250	25 941.563	290	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ H	4	0.0018	91FOR
3857.8967	25 913.512	89	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (² G)4p	v ³ G ^o	5	0.0018	91FOR
3858.1367	25 911.900	340	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ H	5	0.0018	91FOR
3861.0800	25 892.148	69	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	³ G	3	0.0018	91FOR
3862.8248	25 880.453	200	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ G	3	0.0018	91FOR
3864.4830	25 869.348	50	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	³ G	4	0.0018	91FOR
3864.6811	25 868.022	19	3d ³ (² G)4s	b ¹ G	4	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.0018	91FOR
3866.0212	25 859.056	36	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ P)4p	x ³ P ^o	2	0.0018	91FOR
3866.4394	25 856.259	400	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ H	6	0.0018	91FOR
3867.7368	25 847.586	120	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ H	3	0.0018	91FOR
3868.0054	25 845.791	9	3d ³ (⁴ F)4s	b ³ F	4	—	3d ⁴ s ² 4p	x ¹ F ^o	3	0.0018	91FOR
3868.3960	25 843.181	330	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ G	4	0.0018	91FOR
3868.9599	25 839.415	22	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4s(² F)4d	³ F	2	0.0018	91FOR
3869.2719	25 837.331	150	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ G	2	0.0018	91FOR
3869.6013	25 835.132	57	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.0018	91FOR
3870.1203	25 831.667	29	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(² F)4d	³ F	3	0.0018	91FOR
3873.2011	25 811.121	240	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ H	4	0.0018	91FOR
3874.1255	25 804.962	44	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(² F)4d	³ F	4	0.0018	91FOR
3875.2573	25 797.426	430	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ G	5	0.0018	91FOR
3877.5910	25 781.900	68	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ G	3	0.0018	91FOR
3879.1937	25 771.249	9	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(² F)4d	³ F	2	0.0018	91FOR
3879.3448	25 770.245	13	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(² D)5s	³ D	1	0.0018	91FOR
3880.6290	25 761.717	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	³ G	3	0.0018	91FOR
3881.3955	25 756.630	240	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	0.0018	91FOR
3882.1464	25 751.648	480	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ G	6	0.0018	91FOR
3882.3204	25 750.494	310	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ H	5	0.0018	91FOR
3882.8910	25 746.710	900	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)4d	e ⁵ H	7	0.0018	91FOR
3884.0881	25 738.775	30	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ G	2	0.0018	91FOR
3887.3554	25 717.142	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ H	3	0.0018	91FOR
3888.0218	25 712.734	63	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ G	4	0.0018	91FOR
3888.1874	25 711.639	9	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(² F)4d	³ F	3	0.0018	91FOR
3888.752	25 707.91	7 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	³ G	4	0.004	91FOR
3889.9503	25 699.987	290	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.0018	91FOR
3893.6228	25 675.747	16	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(² D)5s	³ D	2	0.0018	91FOR
3895.2426	25 665.070	330	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)4d	e ⁵ H	6	0.0018	91FOR
3897.3092	25 651.461	25	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ G	3	0.0018	91FOR
3897.5749	25 649.713	21	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ H	4	0.0018	91FOR
3898.4886	25 643.701	200	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.0018	91FOR
3899.6599	25 635.999	78	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ G	5	0.0018	91FOR
3899.7022	25 635.721	28	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.0018	91FOR
3900.9594	25 627.459	1400	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.0018	91FOR
3904.7840	25 602.359	3500	3d ² 4s ²	a ¹ D	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.0018	91FOR
3911.1849	25 560.460	120	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)4d	e ⁵ G	6	0.0018	91FOR
3911.3634	25 559.293	15	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)4d	e ⁵ H	5	0.0018	91FOR
3912.58	25 551.38	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ G	4	0.05	09KIL
3912.8962	25 549.281	8	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	—	3d ³ (² G)5s	¹ G	4	0.0018	91FOR
3914.3347	25 539.892	3100	3d ² 4s ²	a ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	0.0018	91FOR
3914.7377	25 537.263	180	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.0018	91FOR
3915.8749	25 529.847	78	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.0018	91FOR
3916.0947	25 528.414	20	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(² D)5s	³ D	3	0.0018	91FOR
3919.8169	25 504.173	84	3d ² 4s ²	a ¹ G	4	—	3d ⁴ s ² 4p	x ¹ F ^o	3	0.0018	91FOR
3920.5359	25 499.496	5	3d ² 4s ²	a ¹ G	4	—	3d ³ (² G)4p	v ³ G ^o	4	0.0018	91FOR
3921.4225	25 493.731	1600	3d ² 4s ²	a ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.0018	91FOR
3924.5268	25 473.566	3600	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.0018	91FOR
3926.3180	25 461.945	78	3d ³ (² H)4s	a ¹ H	5	—	3d ² 4s(² F)5p	u ¹ G ^o	4	0.0019	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
3928.761	25 446.12	8 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ³ (⁴ F)4d	⁵ F	4	0.004	91FOR
3928.967	25 444.78	13 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)4d	e ⁵ G	5	0.004	91FOR
3929.8740	25 438.906	3200	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.0019	91FOR
3930.2222	25 436.652	17	3d ² 4s ²	a ¹ G	4	—	3d ³ (² G)4p	v ³ G ^o	3	0.0019	91FOR
3931.5866	25 427.825	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ³ (⁴ F)4d	⁵ F	5	0.0019	91FOR
3934.2336	25 410.717	310	3d ² 4s ²	a ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.0019	91FOR
3938.000	25 386.414	2 b	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ³ 4d	⁵ P	2	0.002	64GIU/THE
3947.7686	25 323.598	5700	3d ² 4s ²	a ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.0019	91FOR
3948.6708	25 317.812	7000	3d ² 4s ²	a ³ F	2	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.0019	91FOR
3956.3343	25 268.772	8000	3d ² 4s ²	a ³ F	3	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.0019	91FOR
3958.2016	25 256.852	8600	3d ² 4s ²	a ³ F	4	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.0019	91FOR
3962.8508	25 227.221	2500	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.0019	91FOR
3964.2694	25 218.194	2800	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.0019	91FOR
3975.7073	25 145.644	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	g ³ F	4	0.0019	91FOR
3980.8102	25 113.411	15	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	g ³ F	3	0.0019	91FOR
3981.4496	25 109.378	24	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	e ³ D	4	0.0019	91FOR
3981.7616	25 107.411	8800	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.0019	91FOR
3982.4806	25 102.878	3400	3d ² 4s ²	a ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	2	0.0019	91FOR
3983.8254	25 094.404	14	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	³ G	5	0.0019	91FOR
3984.3145	25 091.324	43*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ D	3	0.0019	91FOR
3984.3145	25 091.324	43*	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(² D)5s	³ D	2	0.0019	91FOR
3985.4430	25 084.219	30	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)4d	e ⁵ D	1	0.0019	91FOR
3985.5795	25 083.360	44	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ D	2	0.0019	91FOR
3989.5685	25 058.281	33	3d ² 4s ²	a ³ P	2	—	3d ² (¹ D)4s4p(¹ P ^o)	z ¹ P ^o	1	0.0019	91FOR
3989.7586	25 057.087	8800	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.0019	91FOR
3990.1363	25 054.715	18	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.0019	91FOR
3990.2195	25 054.193	28	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)4d	e ³ D	0	0.0019	91FOR
3993.7885	25 031.804	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	g ³ F	4	0.0019	91FOR
3994.6742	25 026.254	55	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ D	1	0.0019	91FOR
3996.6350	25 013.976	17	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	³ G	4	0.0019	91FOR
3998.6366	25 001.455	10 000	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.0019	91FOR
3998.963	24 999.42	15 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	³ H	4	0.004	91FOR
3999.3424	24 997.043	88	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	e ³ D	2	0.0019	91FOR
4000.0430	24 992.665	12	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	³ G	3	0.0019	91FOR
4002.4681	24 977.522	100	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ D	3	0.0019	91FOR
4003.7970	24 969.232	120	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	e ³ D	4	0.0019	91FOR
4005.9599	24 955.751	68	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ H	4	0.0019	91FOR
4006.4616	24 952.626	5	3d ³ (² D ₂)4s	a ³ D	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.0019	91FOR
4007.1891	24 948.096	34	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	e ³ H	3	0.0019	91FOR
4008.0533	24 942.717	120	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ H	5	0.0019	91FOR
4008.9273	24 937.279	3300	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.0019	91FOR
4009.6565	24 932.744	1200	3d ² 4s ²	a ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	2	0.0019	91FOR
4012.7913	24 913.267	32	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	g ³ F	3	0.0019	91FOR
4013.241	24 910.47	5 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.004	91FOR
4013.5833	24 908.351	160	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ H	6	0.0019	91FOR
4014.8991	24 900.188	13	3d ³ (² D ₂)4s	a ³ D	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.0019	91FOR
4015.3738	24 897.244	150	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)4d	e ⁵ G	2	0.0019	91FOR
4016.2761	24 891.651	74	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	g ³ F	4	0.0019	91FOR
4016.9636	24 887.391	26	3d ³ (² D ₂)4s	a ³ D	2	—	3d4s ² 4p	q ³ D ^o	3	0.0019	91FOR
4017.7674	24 882.412	170	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ G	3	0.0019	91FOR
4021.1078	24 861.742	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ H	3	0.0019	91FOR
4021.8151	24 857.370	230	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ G	4	0.0019	91FOR
4023.6789	24 845.856	12	3d ³ (² D ₂)4s	a ³ D	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.0019	91FOR
4024.307	24 841.98	9 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ H	4	0.004	91FOR
4024.5709	24 840.349	3600	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.0019	91FOR
4024.7414	24 839.297	39	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	e ³ G	2	0.0019	91FOR
4025.0762	24 837.231	21	3d ³ (² D ₂)4s	a ³ D	1	—	3d4s ² 4p	q ³ D ^o	2	0.0019	91FOR
4025.2245	24 836.316	25	3d ³ (² D ₂)4s	a ³ D	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.0019	91FOR
4026.5374	24 828.218	260	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ G	5	0.0019	91FOR
4027.149	24 824.45	6 q	3d ³ (² D ₂)4s	a ³ D	1	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.004	91FOR
4030.5111	24 803.740	310	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ G	6	0.0019	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
4030.6980	24 802.590	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ H	5	0.0020	91FOR
4031.7550	24 796.088	39	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ G	3	0.0020	91FOR
4033.9019	24 782.891	61	3d ³ (² D2)4s	a ³ D	2	—	3d4s ² 4p	q ³ D ^o	2	0.0020	91FOR
4034.8905	24 776.819	41	3d ³ (² D2)4s	a ³ D	1	—	3d4s ² 4p	q ³ D ^o	1	0.0020	91FOR
4035.8254	24 771.080	130	3d ³ (² D2)4s	a ³ D	3	—	3d4s ² 4p	q ³ D ^o	3	0.0020	91FOR
4040.3166	24 743.545	36	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ G	4	0.0020	91FOR
4043.7542	24 722.511	21	3d ³ (² D2)4s	a ³ D	2	—	3d4s ² 4p	q ³ D ^o	1	0.0020	91FOR
4049.3935	24 688.082	19	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ G	5	0.0020	91FOR
4052.9214	24 666.593	110 bl	3d ³ (² D2)4s	a ³ D	3	—	3d4s ² 4p	q ³ D ^o	2	0.0020	91FOR
4055.0112	24 653.881	550	3d ² 4s ²	a ³ P	0	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.0020	91FOR
4057.6189	24 638.037	58	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.0020	91FOR
4058.1404	24 634.871	90	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)4d	g ⁵ F	5	0.0020	91FOR
4060.0753	24 623.131	36	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.0020	91FOR
4060.2621	24 621.998	710	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	x ³ P ^o	2	0.0020	91FOR
4064.144	24 598.48	8 q	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(² F)4d	e ¹ G	4	0.004	91FOR
4064.2097	24 598.083	420	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.0020	91FOR
4065.0952	24 592.725	560	3d ² 4s ²	a ³ P	1	—	3d ³ (⁴ P)4p	x ³ P ^o	0	0.0020	91FOR
4065.5858	24 589.757	21	3d ³ (² D2)4s	a ³ D	1	—	3d ³ (² P)4p	u ³ P ^o	0	0.0020	91FOR
4068.1325	24 574.364	34	3d ³ (² D2)4s	a ³ D	1	—	3d ³ (² P)4p	u ³ P ^o	1	0.0020	91FOR
4068.6489	24 571.245	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ² 4s(⁴ F)4d	g ⁵ F	1	0.0020	91FOR
4068.9849	24 569.216	31	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	—	3d ² 4s(² F)4d	f ¹ F	3	0.0020	91FOR
4070.6769	24 559.004	7	3d ³ (² D2)4s	a ³ D	1	—	3d ³ (² P)4p	u ³ P ^o	2	0.0020	91FOR
4071.1910	24 555.903	22	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)4d	g ⁵ F	2	0.0020	91FOR
4071.4671	24 554.238	26	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.0020	91FOR
4074.3494	24 536.868	22	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.0020	91FOR
4076.3614	24 524.757	120	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.0020	91FOR
4077.1481	24 520.025	36	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (² P)4p	u ³ P ^o	1	0.0020	91FOR
4078.4705	24 512.075	1800	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	x ³ P ^o	2	0.0020	91FOR
4079.6978	24 504.701	50	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (² P)4p	u ³ P ^o	2	0.0020	91FOR
4082.455	24 488.151	650	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.002	91FOR
4099.165	24 388.329	100	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (² P)4p	u ³ P ^o	2	0.002	91FOR
4112.708	24 308.019	2100	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.002	91FOR
4120.030	24 264.824	26	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ P	3	0.002	91FOR
4121.635	24 255.374	59	3d ² 4s ²	a ³ P	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.002	91FOR
4122.143	24 252.386	100	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(² F)4d	f ³ H	4	0.002	91FOR
4123.288	24 245.650	67	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	—	3d ² 4s(² F)4d	f ¹ F	3	0.002	91FOR
4123.560	24 244.050	110	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(² F)4d	f ³ H	5	0.002	91FOR
4124.036	24 241.25	9 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4s(⁴ F)4d	e ⁵ P	2	0.004	91FOR
4125.748	24 231.193	7	3d ³ (² P)4s	b ³ P	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.002	91FOR
4127.531	24 220.729	150	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(² F)4d	f ³ H	6	0.002	91FOR
4131.249	24 198.929	44	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ P	2	0.002	91FOR
4136.884	24 165.969	26	3d ³ (² P)4s	b ³ P	2	—	3d4s ² 4p	q ³ D ^o	3	0.002	91FOR
4137.284	24 163.630	140	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ P	3	0.002	91FOR
4139.837	24 148.731	17	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ² 4s(⁴ F)4d	e ⁵ P	1	0.002	91FOR
4142.475	24 133.354	12	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(² F)4d	f ³ H	4	0.002	91FOR
4143.042	24 130.047	97	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ P	2	0.002	91FOR
4143.276	24 128.688	41	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4s(⁴ F)4d	e ⁵ P	1	0.002	91FOR
4145.033	24 118.456	12	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.002	91FOR
4145.985	24 112.921	9	3d ³ (² F)4s	³ F	4	—	3d ² 4s(² F)5p	³ D ^o	3	0.002	91FOR
4149.441	24 092.840	17	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(² F)4d	f ³ H	5	0.002	91FOR
4150.550	24 086.398	39	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ P	1	0.002	91FOR
4150.799	24 084.955	16	3d ³ (² P)4s	b ³ P	1	—	3d4s ² 4p	q ³ D ^o	1	0.002	91FOR
4150.959	24 084.029	220	3d ³ (² D2)4s	a ³ D	3	—	3d4s ² 4p	s ³ F ^o	4	0.002	91FOR
4154.849	24 061.481	24	3d ³ (² P)4s	b ³ P	2	—	3d4s ² 4p	q ³ D ^o	2	0.002	91FOR
4159.637	24 033.786	150	3d ³ (² D2)4s	a ³ D	2	—	3d4s ² 4p	s ³ F ^o	3	0.002	91FOR
4160.186	24 030.609	9	3d ³ (² F)4s	³ F	3	—	3d ² 4s(² F)5p	³ D ^o	2	0.002	91FOR
4160.408	24 029.328	8	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(² F)4d	³ G	4	0.002	91FOR
4164.132	24 007.843	53	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² H)4p	x ³ H ^o	4	0.002	91FOR
4166.308	23 995.299	70	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² H)4p	x ³ H ^o	5	0.002	91FOR
4167.688	23 987.355	6	3d ³ (² F)4s	³ F	2	—	3d ² 4s(² F)5p	³ D ^o	1	0.002	91FOR
4169.326	23 977.933	96	3d ³ (² G)4s	a ³ G	5	—	3d ³ (² H)4p	x ³ H ^o	6	0.002	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4171.017	23 968.213	110	3d ³ (² D2)4s	a ³ D	1	–	3d4s ² 4p	s ³ F ^o	2	0.002	91FOR
4172.594	23 959.154	8	3d ³ (² G)4s	a ³ G	4	–	3d ³ (² H)4p	x ³ H ^o	4	0.002	91FOR
4174.072	23 950.670	43	3d ² 4s ²	a ¹ D	2	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.002	91FOR
4174.467	23 948.405	39	3d ³ (² P)4s	b ³ P	0	–	3d ³ (² P)4p	u ³ P ^o	1	0.002	91FOR
4176.967	23 934.071	7	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	–	3d ² 4s(² F)4d	³ G	3	0.002	91FOR
4177.380	23 931.707	9	3d ³ (² G)4s	a ³ G	5	–	3d ³ (² H)4p	x ³ H ^o	5	0.002	91FOR
4179.870	23 917.450	12	3d ³ (² D2)4s	a ³ D	3	–	3d4s ² 4p	s ³ F ^o	3	0.002	91FOR
4180.495	23 913.871	16	3d ³ (² D2)4s	a ³ D	2	–	3d4s ² 4p	s ³ F ^o	2	0.002	91FOR
4181.119	23 910.302	9	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	–	3d ² 4s(² F)4d	³ G	4	0.002	91FOR
4183.287	23 897.913	43	3d ³ (² P)4s	b ³ P	1	–	3d ³ (² P)4p	u ³ P ^o	0	0.002	91FOR
4184.589	23 890.479	11	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	–	3d ² 4s(² F)4d	³ G	5	0.002	91FOR
4185.988	23 882.495	14	3d ³ (² P)4s	b ³ P	1	–	3d ³ (² P)4p	u ³ P ^o	1	0.002	91FOR
4186.118	23 881.751	910	3d ² 4s ²	a ¹ G	4	–	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	0.002	91FOR
4188.683	23 867.126	55	3d ³ (² P)4s	b ³ P	1	–	3d ³ (² P)4p	u ³ P ^o	2	0.002	91FOR
4200.745	23 798.597	69	3d ³ (² P)4s	b ³ P	2	–	3d ³ (² P)4p	u ³ P ^o	1	0.002	91FOR
4203.459	23 783.231	110	3d ³ (² P)4s	b ³ P	2	–	3d ³ (² P)4p	u ³ P ^o	2	0.002	91FOR
4211.720	23 736.580	34	3d ³ (² P)4s	a ¹ P	1	–	3d ³ (² D2)4p	u ¹ D ^o	2	0.002	91FOR
4224.786	23 663.174	66	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	–	3d ² 4s(² F)4d	e ¹ G	4	0.002	91FOR
4232.358	23 620.837	4	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	³ H	4	0.002	91FOR
4234.649	23 608.06	11 q	3d ³ (² G)4s	a ³ G	4	–	3d ³ (² P)4p	t ³ D ^o	3	0.004	91FOR
4237.584	23 591.708	4	3d ³ (² G)4s	a ³ G	3	–	3d ³ (² P)4p	t ³ D ^o	2	0.002	91FOR
4237.770	23 590.673	36	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	e ⁵ D	4	0.002	91FOR
4237.887	23 590.020	180	3d ³ (² D2)4s	b ¹ D	2	–	3d ³ (² D2)4p	u ¹ D ^o	2	0.002	91FOR
4245.506	23 547.690	21	3d ³ (² H)4s	a ³ H	4	–	3d ³ (² G)4p	v ¹ F ^o	3	0.002	91FOR
4246.111	23 544.334	10	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ⁴	³ F1	3	0.002	91FOR
4249.112	23 527.703	68	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4s(⁴ F)4d	e ⁵ D	3	0.002	91FOR
4250.572	23 519.624	17	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	–	3d ² 4s(⁴ F)4d	³ H	4	0.002	91FOR
4251.602	23 513.925	49	3d ³ (² G)4s	a ³ G	4	–	3d ³ (² G)4p	t ³ F ^o	4	0.002	91FOR
4251.756	23 513.07	32 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	g ³ F	4	0.005	91FOR
4256.026	23 489.484	160	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	–	3d ² 4s(⁴ F)4d	e ⁵ D	4	0.002	91FOR
4258.525	23 475.702	76	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	–	3d ² 4s(⁴ F)4d	e ⁵ D	2	0.002	91FOR
4260.746	23 463.464	30	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4s(⁴ F)4d	g ³ F	3	0.002	91FOR
4261.590	23 458.817	120	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	e ⁵ D	3	0.002	91FOR
4263.133	23 450.324	750	3d ³ (² G)4s	a ³ G	5	–	3d ³ (² G)4p	t ³ F ^o	4	0.002	91FOR
4265.259	23 438.637	45	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	–	3d ² 4s(⁴ F)4d	e ⁵ D	1	0.002	91FOR
4265.703	23 436.200	52	3d ³ (² G)4s	a ³ G	3	–	3d ³ (² G)4p	t ³ F ^o	3	0.002	91FOR
4265.831	23 435.495	15	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ⁴	³ F1	4	0.002	91FOR
4266.209	23 433.418	58	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4s(⁴ F)4d	e ⁵ D	2	0.002	91FOR
4268.916	23 418.56	13 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	–	3d ² 4s(⁴ F)4d	e ⁵ D	1	0.005	91FOR
4270.127	23 411.920	110	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	–	3d ² 4s(⁴ F)4d	g ³ F	4	0.002	91FOR
4272.328	23 399.857	13	3d ³ (⁴ P)4s	c ³ P	2	–	3d4s ² 4p	q ³ D ^o	3	0.002	91FOR
4272.424	23 399.332	180	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ³ (⁴ F)4p	x ⁵ D ^o	4	0.002	91FOR
4273.295	23 394.562	36	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	g ³ F	3	0.002	91FOR
4274.293	23 389.102	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	–	3d ² 4s(⁴ F)4d	g ³ F	2	0.002	91FOR
4274.383	23 388.610	40	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	–	3d ² 4s(⁴ F)4d	e ⁵ D	0	0.002	91FOR
4274.588	23 387.485	660	3d ³ (² G)4s	a ³ G	4	–	3d ³ (² G)4p	t ³ F ^o	3	0.002	91FOR
4275.779	23 380.970	10	3d ³ (⁴ P)4s	c ³ P	1	–	3d4s ² 4p	q ³ D ^o	2	0.002	91FOR
4276.427	23 377.429	190	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.002	91FOR
4276.632	23 376.309	59	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	–	3d ² 4s(⁴ F)4d	e ⁵ D	1	0.002	91FOR
4278.220	23 367.629	140	3d ³ (² H)4s	a ¹ H	5	–	3d ² (¹ G)4s4p(¹ P ^o)	x ¹ H ^o	5	0.002	91FOR
4278.788	23 364.528	57	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	e ⁵ D	2	0.002	91FOR
4280.053	23 357.623	27	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	–	3d ² 4s(⁴ F)4d	e ⁵ D	3	0.002	91FOR
4281.364	23 350.471	280	3d ³ (⁴ F)4s	a ⁵ F	1	–	3d ³ (⁴ F)4p	x ⁵ D ^o	2	0.002	91FOR
4281.716	23 348.55	11 q	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ² 4s(⁴ F)4d	³ D	2	0.005	91FOR
4282.620	23 343.623	53	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ³ (² D2)4p	w ³ P ^o	2	0.002	91FOR
4282.699	23 343.193	510	3d ³ (² G)4s	a ³ G	3	–	3d ³ (² G)4p	t ³ F ^o	2	0.002	91FOR
4284.701	23 332.284	17	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ² 4s(⁴ F)4d	³ D	3	0.002	91FOR
4284.859	23 331.424	8	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ² 4s(⁴ F)4d	³ D	1	0.002	91FOR
4284.981	23 330.761	330	3d ³ (⁴ P)4s	a ⁵ P	2	–	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.002	91FOR
4285.442	23 328.251	5	3d ³ (⁴ P)4s	c ³ P	0	–	3d4s ² 4p	q ³ D ^o	1	0.002	91FOR
4286.004	23 325.194	2200	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.002	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4287.403	23 317.584	2200	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	x ⁵ D°	4	0.002	91FOR
4288.146	23 313.542	73	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(¹ P°)	w ³ D°	3	0.002	91FOR
4288.179	23 313.360	98	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P°)	y ³ P°	2	0.002	91FOR
4288.368	23 312.337	16	3d ³ (² P)4s	b ³ P	2	—	3d4s ² 4p	s ³ F°	3	0.002	91FOR
4289.070	23 308.518	2300	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)4p	x ⁵ D°	2	0.002	91FOR
4289.907	23 303.970	83	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (⁴ P)4p	r ³ D°	3	0.002	91FOR
4290.929	23 298.421	1900	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)4p	x ⁵ D°	1	0.002	91FOR
4291.126	23 297.350	190	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² G)4p	v ¹ F°	3	0.002	91FOR
4291.195	23 296.976	67*	3d ² (³ F)4s4p(¹ P°)	y ³ G°	5	—	3d ² 4s(⁴ F _{9/2})5g	[6.5]	6	0.002	91FOR
4291.195	23 296.976	67*	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (² D2)4p	w ³ P°	2	0.002	91FOR
4292.668	23 288.981	76	3d ² 4s ²	a ³ P	0	—	3d ² (³ P)4s4p(³ P°)	y ³ P°	1	0.002	91FOR
4295.749	23 272.281	1900	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)4p	x ⁵ D°	0	0.002	91FOR
4298.666	23 256.491	3200	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)4p	x ⁵ D°	1	0.002	91FOR
4299.203	23 253.584	480	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (⁴ P)4p	y ⁵ S°	2	0.002	91FOR
4299.629	23 251.278	740	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(¹ P°)	w ³ D°	3	0.002	91FOR
4300.489	23 246.63	80 q	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (⁴ P)4p	r ³ D°	2	0.005	91FOR
4300.554	23 246.277	4400	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)4p	x ⁵ D°	2	0.002	91FOR
4301.079	23 243.440	4900	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	x ⁵ D°	3	0.002	91FOR
4302.979	23 233.176	33	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P°)	y ³ P°	1	0.002	91FOR
4303.571	23 229.981	6	3d ² (³ F)4s4p(³ P°)	z ⁵ G°	2	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.002	91FOR
4305.463	23 219.775	56	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (² D2)4p	w ³ P°	2	0.002	91FOR
4305.738	23 218.29	21 q	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² H)4p	³ G°	4	0.005	91FOR
4305.908	23 217.375	6400	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ³ (⁴ F)4p	x ⁵ D°	4	0.002	91FOR
4306.939	23 211.818	23	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ F)4s4p(¹ P°)	w ³ D°	2	0.002	91FOR
4308.500	23 203.405	170	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P°)	y ³ P°	2	0.002	91FOR
4309.088	23 200.240	42	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² H)4p	³ G°	5	0.002	91FOR
4310.359	23 193.401	70	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P°)	y ³ P°	0	0.002	91FOR
4311.645	23 186.484	54	3d ³ (² D2)4s	a ³ D	1	—	3d ³ (⁴ P)4p	r ³ D°	1	0.002	91FOR
4314.035	23 173.638	9	3d ² (³ F)4s4p(³ P°)	z ⁵ G°	3	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.002	91FOR
4314.344	23 171.977	200	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (¹ G)4s4p(³ P°)	x ³ G°	3	0.002	91FOR
4314.729	23 169.912	200	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(¹ P°)	w ³ D°	2	0.002	91FOR
4314.800	23 169.530	2100	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(¹ P°)	w ³ D°	3	0.002	91FOR
4318.629	23 148.987	570	3d ³ (² H)4s	a ³ H	6	—	3d ³ (² H)4p	³ G°	5	0.002	91FOR
4321.654	23 132.785	330	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² H)4p	³ G°	3	0.002	91FOR
4321.770	23 132.163	15	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (⁴ P)4p	r ³ D°	1	0.002	91FOR
4322.114	23 130.319	11	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (⁴ P)4p	r ³ D°	2	0.002	91FOR
4323.431	23 123.274	98	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P°)	y ³ P°	1	0.002	91FOR
4325.126	23 114.212	470	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² H)4p	³ G°	4	0.002	91FOR
4326.235	23 108.290	11	3d ² (³ F)4s4p(³ P°)	z ⁵ G°	4	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.002	91FOR
4326.351	23 107.668	380	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(¹ P°)	w ³ D°	2	0.002	91FOR
4326.960	23 104.416	42	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ F)4s4p(¹ P°)	w ³ D°	1	0.002	91FOR
4334.828	23 062.483	49	3d ³ (² F)4s	³ F	4	—	3d ² 4s(⁴ F _{5/2})4f	[3.5]°	3	0.002	91FOR
4338.465	23 043.15	28 q	3d ³ (² D2)4s	a ³ D	2	—	3d4s ² 4p	v ³ P°	2	0.005	91FOR
4339.996	23 035.020	16	3d ² (³ F)4s4p(³ P°)	z ⁵ G°	5	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.002	91FOR
4343.777	23 014.971	29	3d ³ (² D2)4s	a ³ D	1	—	3d4s ² 4p	v ³ P°	1	0.002	91FOR
4346.103	23 002.654	180	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² H)4p	y ¹ H°	5	0.002	91FOR
4346.605	22 999.996	26	3d ³ (² D2)4s	a ³ D	1	—	3d4s ² 4p	v ³ P°	0	0.002	91FOR
4354.054	22 960.648	64*	3d ³ (² D2)4s	a ³ D	2	—	3d4s ² 4p	v ³ P°	1	0.002	91FOR
4354.054	22 960.648	64*	3d ³ (² F)4s	³ F	4	—	3d ² 4s(⁴ F _{3/2})4f	[3.5]°	3	0.002	91FOR
4355.283	22 954.170	19	3d ² (³ F)4s4p(³ P°)	z ⁵ G°	6	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.002	91FOR
4360.482	22 926.799	130	3d ³ (² D2)4s	a ³ D	3	—	3d4s ² 4p	v ³ P°	2	0.002	91FOR
4368.934	22 882.450	35	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² H)4p	³ G°	3	0.002	91FOR
4372.375	22 864.438	55	3d ³ (² P)4s	a ¹ P	1	—	3d ³ (² P)4p	¹ D°	2	0.002	91FOR
4388.540	22 780.221	21	3d ² (³ F)4s4p(³ P°)	z ³ D°	3	—	3d ² 4s(⁴ F)4d	³ D	3	0.002	91FOR
4391.645	22 764.117	10	3d ² (³ F)4s4p(³ P°)	z ³ D°	2	—	3d ² 4s(⁴ F)4d	³ D	2	0.002	91FOR
4393.922	22 752.317	570	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² H)4p	y ¹ H°	5	0.002	91FOR
4394.875	22 747.384	160	3d ² 4s ²	a ³ P	0	—	3d ² (³ P)4s4p(³ P°)	v ³ D°	1	0.002	91FOR
4395.465	22 744.334	7	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² D2)4p	u ³ F°	4	0.002	91FOR
4397.721	22 732.67	6 q	3d ² (³ F)4s4p(³ P°)	z ³ D°	3	—	3d ² 4s(⁴ F)4d	e ³ P	3	0.005	91FOR
4400.580	22 717.894	17	3d ³ (² D2)4s	b ¹ D	2	—	3d ³ (² P)4p	¹ D°	2	0.002	91FOR
4400.841	22 716.549	49	3d ² (³ F)4s4p(³ P°)	z ³ D°	1	—	3d ² 4s(⁴ F)4d	³ D	1	0.002	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4404.275	22 698.84	340 q	3d ³ (² P)4s	b ³ P	2	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.005	91FOR
4404.389	22 698.251	400	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.002	91FOR
4404.897	22 695.634	180	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² D)4p	u ³ F ^o	4	0.002	91FOR
4405.680	22 691.597	130	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.002	91FOR
4412.422	22 656.929	23	3d ² 4s ²	a ¹ D	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.002	91FOR
4414.096	22 648.336	9	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(⁴ F)4d	³ D	1	0.002	91FOR
4414.923	22 644.092	20	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(⁴ F)4d	³ D	2	0.002	91FOR
4415.565	22 640.800	21	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(⁴ F)4d	³ H	4	0.002	91FOR
4416.531	22 635.848	150	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² D)4p	u ³ F ^o	3	0.002	91FOR
4417.274	22 632.041	720	3d ³ (² G)4s	a ³ G	5	—	3d ³ (² D)4p	u ³ F ^o	4	0.002	91FOR
4417.444	22 631.170	20	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ D	3	0.002	91FOR
4421.451	22 610.659	32	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ D	4	0.002	91FOR
4421.752	22 609.121	200	3d ³ (² P)4s	b ³ P	1	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.002	91FOR
4422.820	22 603.663	810	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.002	91FOR
4424.385	22 595.669	52	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(⁴ F)4d	³ G	5	0.002	91FOR
4425.824	22 588.319	140	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.002	91FOR
4426.055	22 587.139	480	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² D)4p	u ³ F ^o	3	0.002	91FOR
4427.098	22 581.819	2900	3d ² 4s ²	a ¹ G	4	—	3d ² (² G)4p	z ¹ H ^o	5	0.002	91FOR
4430.017	22 566.942	47	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)4d	g ³ F	3	0.002	91FOR
4430.364	22 565.171	230*	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ³ 4p ²	⁵ F	3	0.002	91FOR
4430.364	22 565.171	230*	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.002	91FOR
4431.276	22 560.527	91	3d ³ (² P)4s	b ³ P	0	—	3d ³ (⁴ P)4p	r ³ D ^o	1	0.002	91FOR
4432.592	22 553.833	42	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)4d	³ G	4	0.002	91FOR
4433.566	22 548.874	55	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.002	91FOR
4433.964	22 546.851	210	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.002	91FOR
4434.017	22 546.581	400	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² D)4p	u ³ F ^o	2	0.002	91FOR
4434.366	22 544.806	26	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(⁴ F)4d	³ G	3	0.002	91FOR
4436.586	22 533.528	140	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² G)4p	v ³ G ^o	5	0.002	91FOR
4436.675	22 533.076	45	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(⁴ F)4d	g ³ F	4	0.002	91FOR
4438.221	22 525.225	48	3d ³ (² P)4s	b ³ P	2	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.002	91FOR
4440.338	22 514.49	330 q	3d ³ (² G)4s	a ³ G	3	—	3d4s ² 4p	x ¹ F ^o	3	0.005	91FOR
4441.266	22 509.782	120	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² G)4p	v ³ G ^o	4	0.002	91FOR
4444.258	22 494.629	53	3d ³ (² P)4s	b ³ P	1	—	3d ³ (⁴ P)4p	r ³ D ^o	1	0.002	91FOR
4449.143	22 469.933	2200	3d ³ (² G)4s	a ³ G	5	—	3d ³ (² G)4p	v ³ G ^o	5	0.002	91FOR
4449.974	22 465.735	18	3d ³ (² G)4s	a ³ G	4	—	3d4s ² 4p	x ¹ F ^o	3	0.002	91FOR
4450.894	22 461.090	1600	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² G)4p	v ³ G ^o	4	0.002	91FOR
4453.049	22 450.22	6 q	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.005	91FOR
4453.313	22 448.891	1400	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.002	91FOR
4453.699	22 446.945	1000	3d ³ (² G)4s	a ³ G	3	—	3d ³ (² G)4p	v ³ G ^o	3	0.002	91FOR
4453.851	22 446.18	8 q	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)4d	³ G	3	0.005	91FOR
4455.318	22 438.791	1900	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.002	91FOR
4457.427	22 428.174	2600	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.002	91FOR
4462.088	22 404.747	130	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.002	91FOR
4462.746	22 401.439	10	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(⁴ F)4d	³ G	4	0.002	91FOR
4463.380	22 398.261	210	3d ³ (² G)4s	a ³ G	4	—	3d ³ (² G)4p	v ³ G ^o	3	0.002	91FOR
4463.533	22 397.492	220	3d ³ (² G)4s	a ³ G	5	—	3d ³ (² G)4p	v ³ G ^o	4	0.002	91FOR
4465.806	22 386.094	610	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ P)4p	y ³ P ^o	3	0.002	91FOR
4471.237	22 358.903	640	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.002	91FOR
4474.852	22 340.841	210	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.002	91FOR
4475.171	22 339.244	14	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.002	91FOR
4475.499	22 337.61	10 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.005	91FOR
4476.595	22 332.142	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.002	91FOR
4478.401	22 323.13	12 q	3d ³ (² P)4s	b ³ P	1	—	3d4s ² 4p	v ³ P ^o	1	0.005	91FOR
4479.701	22 316.657	220	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.002	91FOR
4480.589	22 312.236	120	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.002	91FOR
4481.259	22 308.899	1200	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (⁴ P)4p	y ⁵ P ^o	3	0.002	91FOR
4481.415	22 308.12	7 q	3d ³ (² P)4s	b ³ P	1	—	3d4s ² 4p	v ³ P ^o	0	0.005	91FOR
4482.687	22 301.792	220	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.002	91FOR
4484.53	22 292.66	2	3d ³ (² D)4s	a ³ D	1	—	3d ³ (² D)4p	s ³ D ^o	1	0.02	27RUSI
4485.076	22 289.913	17	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.002	91FOR
4488.249	22 274.155	22	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.002	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
4489.088	22 269.993	590	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.002	91FOR
4490.675	22 262.120	11	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (² D2)4p	s ³ D ^o	2	0.002	91FOR
4492.532	22 252.922	46*	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4s4d	³ P	1	0.002	91FOR
4492.532	22 252.922	46*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.002	91FOR
4495.0000	22 240.702		3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s4d	³ P	2	0.0014	98ALL/GAR
4496.145	22 235.039	610	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.002	91FOR
4496.234	22 234.600	250	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.002	91FOR
4496.766	22 231.97	7 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.005	91FOR
4497.720	22 227.250	50	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.002	91FOR
4500.593	22 213.064	11	3d ³ (² F)4s	³ F	3	—	3d ³ (² F)4p	p ³ F ^o	3	0.002	91FOR
4503.757	22 197.460	81	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.002	91FOR
4505.487	22 188.935	7	3d ³ (² F)4s	³ F	2	—	3d ³ (² F)4p	p ³ F ^o	3	0.002	91FOR
4505.707	22 187.851	11	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.002	91FOR
4506.321	22 184.829		3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s4d	³ P	1	0.002	98ALL/GAR
4508.266	22 175.257	14	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (² D2)4p	s ³ D ^o	3	0.002	91FOR
4512.733	22 153.305	3000	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	y ⁵ F ^o	5	0.002	91FOR
4513.714	22 148.492	24	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.002	91FOR
4515.614	22 139.18	21 q	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	—	3d ² 4s(⁴ F)5d	h ⁵ G	3	0.005	91FOR
4518.022	22 127.372	3700	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)4p	y ⁵ F ^o	4	0.002	91FOR
4518.689	22 124.110	380	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.002	91FOR
4519.801	22 118.664	4	3d ³ (² F)4s	³ F	3	—	3d ³ (² F)4p	p ³ F ^o	2	0.002	91FOR
4522.797	22 104.015	3500	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)4p	y ⁵ F ^o	3	0.002	91FOR
4524.736	22 094.543	14	3d ³ (² F)4s	³ F	2	—	3d ³ (² F)4p	p ³ F ^o	2	0.002	91FOR
4525.935	22 088.69	11 q	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(⁴ F)4d	³ H	4	0.005	91FOR
4526.251	22 087.146	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.002	91FOR
4526.371	22 086.562	18	3d ² 4s ²	a ¹ G	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.002	91FOR
4527.305	22 082.004	2300	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)4p	y ⁵ F ^o	2	0.002	91FOR
4527.469	22 081.203	44	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.002	91FOR
4531.603	22 061.062	12	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.002	91FOR
4532.118	22 058.556	23	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(⁴ F)4d	e ³ D	4	0.002	91FOR
4533.240	22 053.096	9200	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ³ (⁴ F)4p	y ⁵ F ^o	5	0.002	91FOR
4534.776	22 045.625	7900	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	y ⁵ F ^o	4	0.002	91FOR
4535.568	22 041.774	6100	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)4p	y ⁵ F ^o	3	0.002	91FOR
4535.844	22 040.432	320	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.002	91FOR
4535.918	22 040.073	4700	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)4p	y ⁵ F ^o	2	0.002	91FOR
4536.040	22 039.482	4000	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)4p	y ⁵ F ^o	1	0.002	91FOR
4540.494	22 017.863	79	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.002	91FOR
4540.865	22 016.064	47	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.002	91FOR
4541.000	22 015.407	16	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² D2)4p	w ¹ F ^o	3	0.002	91FOR
4544.687	21 997.547	2300	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)4p	y ⁵ F ^o	1	0.002	91FOR
4547.794	21 982.52	37 q	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(⁴ F)4d	g ³ F	3	0.005	91FOR
4548.110	21 980.991	40	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(⁴ F)4d	g ³ F	4	0.002	91FOR
4548.763	21 977.837	3400	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)4p	y ⁵ F ^o	2	0.002	91FOR
4552.454	21 960.021	3400	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	y ⁵ F ^o	3	0.002	91FOR
4553.398	21 955.46	9 q	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	—	3d ² 4s(² F)4d	f ¹ F	3	0.005	91FOR
4555.069	21 947.413	70	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(² F)5s	³ F	3	0.002	91FOR
4555.484	21 945.413	2700	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ³ (⁴ F)4p	y ⁵ F ^o	4	0.002	91FOR
4557.854	21 934.004	44	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.002	91FOR
4558.110	21 932.77	32 q	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.005	91FOR
4559.918	21 924.076	260	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.002	91FOR
4562.626	21 911.060	380	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.002	91FOR
4563.423	21 907.235	120	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(² F)5s	³ F	4	0.002	91FOR
4564.213	21 903.442	32	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.003	91FOR
4570.902	21 871.392	69	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(² F)5s	³ F	2	0.003	91FOR
4572.064	21 865.831	9	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.003	91FOR
4586.917	21 795.027	6	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(² F)5s	³ F	3	0.003	91FOR
4591.603	21 772.787	7	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(² F)5s	³ F	2	0.003	91FOR
4614.29	21 665.77	1	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.019	09KIL
4617.268	21 651.763	2600	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (⁴ P)4p	w ⁵ D ^o	4	0.003	91FOR
4619.520	21 641.210	49	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ P)4p	v ³ P ^o	2	0.003	91FOR
4623.097	21 624.464	1500	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4629.336	21 595.322	620	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.003	91FOR
4634.742	21 570.135	27	3d ³ (² P)4s	b ³ P	2	–	3d ³ (² D)4p	s ³ D ^o	3	0.003	91FOR
4635.547	21 566.389	38	3d ³ (⁴ P)4s	c ³ P	0	–	3d4s ² 4p	v ³ P ^o	1	0.003	91FOR
4637.869	21 555.592	170	3d ³ (⁴ P)4s	c ³ P	2	–	3d4s ² 4p	v ³ P ^o	2	0.003	91FOR
4639.361	21 548.660	940	3d ³ (⁴ P)4s	a ⁵ P	2	–	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.003	91FOR
4639.661	21 547.265	790	3d ³ (⁴ P)4s	a ⁵ P	3	–	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.003	91FOR
4639.940	21 545.969	760	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ³ (⁴ P)4p	w ⁵ D ^o	1	0.003	91FOR
4640.415	21 543.763	49	3d ³ (⁴ P)4s	c ³ P	1	–	3d4s ² 4p	v ³ P ^o	0	0.003	91FOR
4645.189	21 521.623	340	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ³ (⁴ P)4p	w ⁵ D ^o	0	0.003	91FOR
4650.010	21 499.311	270	3d ³ (⁴ P)4s	a ⁵ P	2	–	3d ³ (⁴ P)4p	w ⁵ D ^o	1	0.003	91FOR
4655.686	21 473.098	63	3d ³ (⁴ P)4s	c ³ P	2	–	3d4s ² 4p	v ³ P ^o	1	0.003	91FOR
4656.043	21 471.455	110	3d ³ (⁴ P)4s	a ⁵ P	3	–	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.003	91FOR
4656.468	21 469.494	8400	3d ² 4s ²	a ³ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.003	91FOR
4667.584	21 418.363	10 000	3d ² 4s ²	a ³ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.003	91FOR
4668.345	21 414.875	26	3d ² 4s ²	a ³ P	1	–	3d ³ (⁴ F)4p	x ⁵ D ^o	2	0.003	91FOR
4675.116	21 383.856	200	3d ² 4s ²	a ³ P	2	–	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.003	91FOR
4676.528	21 377.400	8	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	–	3d ⁴	³ F1	3	0.003	91FOR
4676.951	21 375.468	8	3d ³ (² D)4s	b ¹ D	2	–	3d ³ (² G)4p	v ¹ F ^o	3	0.003	91FOR
4677.485	21 373.027	21	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	–	3d ² 4s(² F)4d	e ¹ G	4	0.003	91FOR
4679.706	21 362.89	8 q	3d ² 4s ²	a ³ P	1	–	3d ³ (⁴ F)4p	x ⁵ D ^o	1	0.005	91FOR
4681.399	21 355.159	15	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	–	3d ² 4s(² F)5s	³ F	4	0.003	91FOR
4681.908	21 352.836	13 000	3d ² 4s ²	a ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.003	91FOR
4684.507	21 340.990	24	3d ³ (² D)4s	a ³ D	2	–	3d ³ (² P)4p	t ³ D ^o	3	0.003	91FOR
4686.860	21 330.279	25	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	–	3d ² 4p ²	g ⁵ G	3	0.003	91FOR
4686.950	21 329.866	39	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	–	3d ⁴	¹ F	3	0.003	91FOR
4687.815	21 325.931	9	3d ³ (⁴ F)4s	b ³ F	2	–	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.003	91FOR
4690.795	21 312.385	76	3d ² 4s ²	a ³ P	2	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.003	91FOR
4691.332	21 309.944	750	3d ² 4s ²	a ³ P	2	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.003	91FOR
4692.431	21 304.952	12	3d ² 4s ²	a ³ P	2	–	3d ³ (⁴ F)4p	x ⁵ D ^o	2	0.003	91FOR
4693.664	21 299.355	330	3d ² 4s ²	a ³ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.003	91FOR
4696.931	21 284.544	70	3d ³ (² D)4s	a ³ D	1	–	3d ³ (² P)4p	t ³ D ^o	1	0.003	91FOR
4698.760	21 276.257	590	3d ² 4s ²	a ³ P	1	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.003	91FOR
4698.829	21 275.946	110	3d ³ (² D)4s	a ³ D	2	–	3d ³ (² P)4p	t ³ D ^o	2	0.003	91FOR
4700.190	21 269.784	11	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	–	3d ⁴	³ F1	4	0.003	91FOR
4703.122	21 256.524	9	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	–	3d ² 4s(² F)5s	³ F	2	0.003	91FOR
4708.952	21 230.206	18	3d ³ (² D)4s	a ³ D	2	–	3d ³ (² P)4p	t ³ D ^o	1	0.003	91FOR
4710.186	21 224.645	490	3d ³ (² D)4s	a ³ D	3	–	3d ³ (² P)4p	t ³ D ^o	3	0.003	91FOR
4711.679	21 217.922	7	3d ³ (⁴ F)4s	b ³ F	3	–	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.003	91FOR
4715.299	21 201.629	300	3d ² 4s ²	a ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.003	91FOR
4722.606	21 168.829	220	3d ² 4s ²	a ³ P	1	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.003	91FOR
4723.162	21 166.336	210	3d ² 4s ²	a ³ P	2	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.003	91FOR
4724.662	21 159.614	15	3d ³ (² D)4s	a ³ D	3	–	3d ³ (² P)4p	t ³ D ^o	2	0.003	91FOR
4731.165	21 130.534	160	3d ³ (² D)4s	a ³ D	3	–	3d ³ (² G)4p	t ³ F ^o	4	0.003	91FOR
4733.421	21 120.461	100	3d ³ (² D)4s	a ³ D	2	–	3d ³ (² G)4p	t ³ F ^o	3	0.003	91FOR
4734.670	21 114.888	61	3d ³ (² H)4s	a ³ H	4	–	3d ³ (² H)4p	x ³ H ^o	5	0.003	91FOR
4742.108	21 081.773	54	3d ³ (² D)4s	a ³ D	1	–	3d ³ (² G)4p	t ³ F ^o	2	0.003	91FOR
4742.2953	21 080.939		3d ³ (⁴ F)4s	b ³ F	4	–	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.0018	98ALL/GAR
4742.789	21 078.746	870	3d ³ (² H)4s	a ³ H	4	–	3d ³ (² H)4p	x ³ H ^o	4	0.003	91FOR
4747.261	21 058.889	17	3d ² 4s ²	a ³ P	2	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.003	91FOR
4747.673	21 057.060	76	3d ³ (² H)4s	a ³ H	5	–	3d ³ (² H)4p	x ³ H ^o	6	0.003	91FOR
4754.38	21 027.32	1	3d ³ (² D)4s	a ³ D	2	–	3d ³ (² G)4p	t ³ F ^o	2	0.02	27RUS1
4758.118	21 010.836	1600	3d ³ (² H)4s	a ³ H	5	–	3d ³ (² H)4p	x ³ H ^o	5	0.003	91FOR
4758.900	21 007.386	100	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.003	91FOR
4759.269	21 005.756	1800	3d ³ (² H)4s	a ³ H	6	–	3d ³ (² H)4p	x ³ H ^o	6	0.003	91FOR
4766.318	20 974.692	79	3d ³ (² H)4s	a ³ H	5	–	3d ³ (² H)4p	x ³ H ^o	4	0.003	91FOR
4769.767	20 959.526	81	3d ³ (² H)4s	a ³ H	6	–	3d ³ (² H)4p	x ³ H ^o	5	0.003	91FOR
4771.096	20 953.684	61	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.003	91FOR
4778.255	20 922.293	240	3d ³ (² H)4s	a ³ H	4	–	3d ³ (² G)4p	x ¹ G ^o	4	0.003	91FOR
4781.711	20 907.171	170	3d ³ (⁴ F)4s	a ⁵ F	5	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.003	91FOR
4783.306	20 900.200	17	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.003	91FOR
4787.634	20 881.305	13	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4789.788	20871.914	25	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.003	91FOR
4791.480	20864.545	15	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² H)4p	x ³ H ^o	5	0.003	91FOR
4792.251	20861.188	12	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.003	91FOR
4792.483	20860.177	280	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (² D2)4p	s ³ D ^o	2	0.003	91FOR
4796.211	20843.964	120	3d ³ (⁴ P)4s	c ³ P	0	—	3d ³ (² D2)4p	s ³ D ^o	1	0.003	91FOR
4797.975	20836.303	94	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (² D2)4p	s ³ D ^o	1	0.003	91FOR
4799.795	20828.401	480	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² H)4p	x ³ H ^o	4	0.003	91FOR
4801.908	20819.234	24	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.003	91FOR
4801.954	20819.037	17	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.003	91FOR
4805.415	20804.042	510	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (² D2)4p	s ³ D ^o	3	0.003	91FOR
4806.758	20798.230	25	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.003	91FOR
4808.526	20790.584	120	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(⁴ F)4d	³ H	6	0.003	91FOR
4811.065	20779.609	75	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ H	5	0.003	91FOR
4812.229	20774.585	95	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (² D2)4p	s ³ D ^o	2	0.003	91FOR
4812.892	20771.724	7	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.003	91FOR
4816.469	20756.296		3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.002	98ALL/GAR
4819.028	20745.273	43	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(⁴ F)4d	³ H	4	0.003	91FOR
4820.410	20739.326	980	3d ² 4s ²	a ¹ G	4	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.003	91FOR
4821.272	20735.62	7 q	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.006	91FOR
4825.439	20717.713	50	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.003	91FOR
4826.044	20715.118	10	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ D	4	0.003	91FOR
4827.572	20708.558	35	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.003	91FOR
4832.068	20689.293	23	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.003	91FOR
4836.122	20671.950	140	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² G)4p	x ¹ G ^o	4	0.003	91FOR
4837.396	20666.504	14	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.003	91FOR
4839.253	20658.576	25	3d ³ (² P)4s	b ³ P	0	—	3d ³ (² P)4p	t ³ D ^o	1	0.003	91FOR
4840.873	20651.660	6600	3d ² 4s ²	a ¹ D	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.003	91FOR
4842.599	20644.30	7 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.006	91FOR
4843.975	20638.435	38	3d ³ (² P)4s	b ³ P	1	—	3d ³ (² P)4p	t ³ D ^o	2	0.003	91FOR
4844.855	20634.688	5	3d ³ (² D2)4s	b ¹ D	2	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.003	91FOR
4846.333	20628.396	19	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(⁴ F)4d	³ H	5	0.003	91FOR
4846.828	20626.289	12	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ H	4	0.003	91FOR
4847.303	20624.267	12*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.003	91FOR
4847.303	20624.267	12*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.003	91FOR
4848.207	20620.421	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.003	91FOR
4848.409	20619.562	64	3d ³ (² P)4s	b ³ P	2	—	3d ³ (² P)4p	t ³ D ^o	3	0.003	91FOR
4848.477	20619.274	130	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.003	91FOR
4851.274	20607.383	6	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.003	91FOR
4851.359	20607.026	12	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
4854.737	20592.685	27	3d ³ (² P)4s	b ³ P	1	—	3d ³ (² P)4p	t ³ D ^o	1	0.003	91FOR
4856.010	20587.287	2200	3d ³ (² H)4s	a ³ H	6	—	3d ³ (² H)4p	z ³ I ^o	7	0.003	91FOR
4857.457	20581.156	24	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ G	5	0.003	91FOR
4863.753	20554.515	34	3d ³ (² P)4s	b ³ P	2	—	3d ³ (² P)4p	t ³ D ^o	2	0.003	91FOR
4864.175	20552.731	81	3d ³ (² D2)4s	a ³ D	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
4868.259	20535.487	1300	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² H)4p	z ³ I ^o	5	0.003	91FOR
4870.127	20527.612	1900	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² H)4p	z ³ I ^o	6	0.003	91FOR
4874.594	20508.80	7 q	3d ³ (² P)4s	b ³ P	2	—	3d ³ (² P)4p	t ³ D ^o	1	0.006	91FOR
4874.872	20507.632	11	3d ³ (⁴ F)4p	y ⁵ G ^o	5	—	3d ² 4p ²	g ⁵ G	5	0.003	91FOR
4875.269	20505.96	11 q	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(⁴ F)4d	³ G	4	0.006	91FOR
4880.285	20484.886	37	3d ² 4s ²	a ¹ D	2	—	3d ² (³ P)4s4p(³ P ^o)	z ³ P ^o	2	0.003	91FOR
4880.907	20482.273	61	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.003	91FOR
4882.324	20476.329	79	3d ³ (² H)4s	a ³ H	6	—	3d ³ (² H)4p	z ³ I ^o	6	0.003	91FOR
4882.629	20475.053	7	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(⁴ F)4d	³ H	4	0.003	91FOR
4884.819	20465.871	9	3d ³ (⁴ F)4p	y ⁵ G ^o	3	—	3d ² 4p ²	g ⁵ G	3	0.003	91FOR
4885.081	20464.774	3700	3d ³ (² G)4s	a ³ G	5	—	3d ³ (² G)4p	y ³ H ^o	6	0.003	91FOR
4885.973	20461.040	14	3d ³ (² D2)4s	b ¹ D	2	—	3d ³ (⁴ P)4p	r ³ D ^o	2	0.003	91FOR
4888.713	20449.569	6	3d ³ (⁴ F)4p	y ⁵ G ^o	2	—	3d ² 4p ²	g ⁵ G	2	0.003	91FOR
4889.825	20444.921	7	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(⁴ F)4d	e ⁵ D	4	0.003	91FOR
4890.995	20440.031	19	3d ³ (⁴ P)4s	c ³ P	1	—	3d4s ² 4p	w ¹ D ^o	2	0.003	91FOR
4891.855	20436.438	18	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
4893.052	20431.436	76	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² H)4p	z ³ I ^o	5	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4893.409	20 429.948	43	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	–	3d ² 4s(⁴ F)4d	³ G	5	0.003	91FOR
4893.891	20 427.934	12	3d ³ (² D2)4s	a ³ D	2	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.003	91FOR
4899.909	20 402.847	3200	3d ³ (² G)4s	a ³ G	4	–	3d ³ (² G)4p	y ³ H ^o	5	0.003	91FOR
4900.026	20 402.36	24 q	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	–	3d ² 4s(⁴ F)4d	g ³ F	2	0.006	91FOR
4900.584	20 400.036	20	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	–	3d ² 4s(⁴ F)4d	g ³ F	3	0.003	91FOR
4900.997	20 398.316	16	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	–	3d ² 4s(⁴ F)4d	³ G	3	0.003	91FOR
4903.737	20 386.919	28	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	–	3d ² 4s(⁴ F)4d	³ G	4	0.003	91FOR
4908.449	20 367.347	22	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	–	3d ² 4s(⁴ F)4d	g ³ F	4	0.003	91FOR
4909.098	20 364.657	76	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.003	91FOR
4913.615	20 345.933	2500	3d ³ (² G)4s	a ³ G	3	–	3d ³ (² G)4p	y ³ H ^o	4	0.003	91FOR
4915.230	20 339.250	200	3d ³ (² G)4s	a ³ G	5	–	3d ³ (² G)4p	y ³ H ^o	5	0.003	91FOR
4919.861	20 320.105	630	3d ³ (² D2)4s	a ³ D	2	–	3d ³ (² D2)4p	u ³ F ^o	3	0.003	91FOR
4921.765	20 312.243	860	3d ³ (² D2)4s	a ³ D	3	–	3d ³ (² D2)4p	u ³ F ^o	4	0.003	91FOR
4925.400	20 297.253	200	3d ³ (² G)4s	a ³ G	4	–	3d ³ (² G)4p	y ³ H ^o	4	0.003	91FOR
4926.151	20 294.159	120	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.003	91FOR
4928.337	20 285.158	890*	3d ³ (² D2)4s	a ³ D	1	–	3d ³ (² D2)4p	u ³ F ^o	2	0.003	91FOR
4928.337	20 285.158	890*	3d ³ (² G)4s	b ¹ G	4	–	3d ³ (² H)4p	z ³ I ^o	5	0.003	91FOR
4928.878	20 282.930		3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.004	98ALL/GAR
4937.727	20 246.584	140	3d ³ (⁴ F)4s	a ⁵ F	1	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.003	91FOR
4938.036	20 245.314	7	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	–	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.003	91FOR
4938.291	20 244.271	500	3d ³ (² H)4s	a ¹ H	5	–	3d ³ (² H)4p	y ¹ H ^o	5	0.003	91FOR
4940.969	20 233.299	14	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	–	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.003	91FOR
4941.306	20 231.917	28	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.003	91FOR
4941.569	20 230.843	96	3d ³ (² D2)4s	a ³ D	2	–	3d ³ (² D2)4p	u ³ F ^o	2	0.003	91FOR
4943.066	20 224.713	24	3d ² 4s ²	a ¹ D	2	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.003	91FOR
4944.351	20 219.460	14*	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	–	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.003	91FOR
4944.351	20 219.460	14*	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ³ (⁴ F)5s	f ³ F	3	0.003	91FOR
4946.186	20 211.955	6	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ³ (⁴ F)5s	f ³ F	4	0.003	91FOR
4947.970	20 204.668	35	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.003	91FOR
4948.188	20 203.778	88	3d ³ (² D2)4s	a ³ D	3	–	3d ³ (² D2)4p	u ³ F ^o	3	0.003	91FOR
4958.277	20 162.668	83	3d ² 4s ²	a ¹ D	2	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.003	91FOR
4964.716	20 136.521	150	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	–	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.003	91FOR
4966.028	20 131.200	29	3d ³ (² D2)4s	a ³ D	2	–	3d ³ (² G)4p	v ³ G ^o	3	0.003	91FOR
4967.299	20 126.050	25	3d ² 4s ²	a ³ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.003	91FOR
4968.568	20 120.910	220	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	–	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.003	91FOR
4970.156	20 114.481	4	3d ³ (² D2)4s	a ³ D	3	–	3d ³ (² D2)4p	u ³ F ^o	2	0.003	91FOR
4973.029	20 102.860	230	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	–	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.003	91FOR
4975.342	20 093.516	620	3d ³ (² D2)4s	b ¹ D	2	–	3d ³ (² D2)4p	w ¹ F ^o	3	0.003	91FOR
4977.728	20 083.884	150	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	–	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.003	91FOR
4978.187	20 082.032	510	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	–	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.003	91FOR
4979.257	20 077.716	19	3d ³ (² D2)4s	a ³ D	3	–	3d ³ (² G)4p	v ³ G ^o	4	0.003	91FOR
4981.731	20 067.746	14 000	3d ³ (⁴ F)4s	a ⁵ F	5	–	3d ³ (⁴ F)4p	y ⁵ G ^o	6	0.003	91FOR
4989.134	20 037.970	660	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	–	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.003	91FOR
4991.067	20 030.207	13 000	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ³ (⁴ F)4p	y ⁵ G ^o	5	0.003	91FOR
4995.066	20 014.173	43	3d ³ (² P)4s	b ³ P	2	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.003	91FOR
4997.093	20 006.054	1700	3d ² 4s ²	a ³ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.003	91FOR
4997.726	20 003.52	12 q	3d ³ (² F)4s	³ F	4	–	3d ³ (⁴ F)5p	³ F ^o	4	0.006	91FOR
4999.502	19 996.416	12 000	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ³ (⁴ F)4p	y ⁵ G ^o	4	0.003	91FOR
5000.988	19 990.471	910	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	–	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.003	91FOR
5002.155	19 985.807	6	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	–	3d ² 4s(² D)5s	³ D	1	0.003	91FOR
5007.206	19 965.648	10 000	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ³ (⁴ F)4p	y ⁵ G ^o	3	0.003	91FOR
5009.645	19 955.929	1200*	3d ² 4s ²	a ³ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.003	91FOR
5009.645	19 955.929	1200*	3d ³ (² D2)4s	a ³ D	1	–	3d ³ (² D2)4p	w ³ P ^o	2	0.003	91FOR
5013.282	19 941.452	1200	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	–	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.003	91FOR
5014.186	19 937.856	11 000	3d ² 4s ²	a ³ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.003	91FOR
5014.275	19 937.500	8700	3d ³ (⁴ F)4s	a ⁵ F	1	–	3d ³ (⁴ F)4p	y ⁵ G ^o	2	0.003	91FOR
5016.161	19 930.006	3800	3d ³ (⁴ F)4s	a ⁵ F	5	–	3d ³ (⁴ F)4p	y ⁵ G ^o	5	0.003	91FOR
5019.889	19 915.206	24	3d ³ (² P)4s	b ³ P	1	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
5020.025	19 914.667	5100	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ³ (⁴ F)4p	y ⁵ G ^o	4	0.003	91FOR
5022.866	19 903.400	4800	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ³ (⁴ F)4p	y ⁵ G ^o	3	0.003	91FOR
5023.334	19 901.548	26	3d ³ (² D2)4s	a ³ D	2	–	3d ³ (² D2)4p	w ³ P ^o	2	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
5024.844	19 895.568	3500	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)4p	y ⁵ G ^o	2	0.003	91FOR
5025.570	19 892.694	1400	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.003	91FOR
5031.282	19 870.108	13	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ² 4s(² D)5s	³ D	2	0.003	91FOR
5034.767	19 856.354	6	3d ³ (² P)4s	b ³ P	0	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.003	91FOR
5035.336	19 854.11	8 q	3d ³ (² F)4s	³ F	3	—	3d ³ (⁴ F)5p	³ F ^o	3	0.006	91FOR
5035.903	19 851.877	4900	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	w ³ G ^o	5	0.003	91FOR
5036.464	19 849.666	4000	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	w ³ G ^o	4	0.003	91FOR
5038.397	19 842.051	3300	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.003	91FOR
5039.955	19 835.914	14 000	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.003	91FOR
5040.611	19 833.334	250	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)4p	y ⁵ G ^o	2	0.003	91FOR
5043.582	19 821.652	320	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	y ⁵ G ^o	3	0.003	91FOR
5044.251	19 819.024	12	3d ³ (² D)4s	a ³ D	3	—	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.003	91FOR
5045.415	19 814.452	170	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ³ (⁴ F)4p	y ⁵ G ^o	4	0.003	91FOR
5048.209	19 803.485	57	3d ³ (² D)4s	a ³ D	1	—	3d ³ (² D)4p	w ³ P ^o	1	0.003	91FOR
5052.869	19 785.219	410	3d ³ (² D)4s	a ³ D	3	—	3d ³ (² D)4p	w ³ P ^o	2	0.003	91FOR
5054.075	19 780.499	79	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(² F)5s	³ F	3	0.003	91FOR
5062.101	19 749.139	310	3d ³ (² D)4s	a ³ D	2	—	3d ³ (² D)4p	w ³ P ^o	1	0.003	91FOR
5064.056	19 741.514	110	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(² F)5s	³ F	4	0.003	91FOR
5064.652	19 739.192	17 000	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.003	91FOR
5065.988	19 733.985	300	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.003	91FOR
5068.324	19 724.891	76	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(² F)5s	³ F	2	0.003	91FOR
5069.354	19 720.883	130	3d ³ (² D)4s	a ³ D	1	—	3d ³ (² D)4p	w ³ P ^o	0	0.003	91FOR
5071.115	19 714.033	16	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ² 4s(² D)5s	³ D	3	0.003	91FOR
5071.467	19 712.666	330	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	w ³ G ^o	4	0.003	91FOR
5081.380	19 674.211	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.003	91FOR
5085.333	19 658.917	200	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.003	91FOR
5087.060	19 652.241	930	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.003	91FOR
5090.851	19 637.61	2 q	3d ² 4s ²	a ¹ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.006	91FOR
5095.962	19 617.912	6	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.003	91FOR
5098.372	19 608.638	18	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	—	3d ² 4s(² D)5s	³ D	3	0.003	91FOR
5099.689	19 603.576	4	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	—	3d ² 4s(² D)5s	³ D	2	0.003	91FOR
5101.403	19 596.988	7	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.003	91FOR
5103.125	19 590.375	43	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	—	3d ³ (² D)4s	¹ D	2	0.003	91FOR
5105.648	19 580.696	2	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² G)4p	v ³ G ^o	4	0.003	91FOR
5109.431	19 566.200	220	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.003	91FOR
5111.044	19 560.025	19	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	—	3d ² 4s(² D)5s	³ D	2	0.003	91FOR
5112.112	19 555.939	5	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	—	3d ² 4s(² D)5s	³ D	1	0.003	91FOR
5113.440	19 550.860	1400	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.003	91FOR
5113.909	19 549.067	3	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² G)4p	v ³ G ^o	5	0.003	91FOR
5120.415	19 524.225	1500	3d ³ (² H)4s	a ¹ H	5	—	3d ³ (² H)4p	z ¹ G ^o	6	0.003	91FOR
5121.959	19 518.34	5 q	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	—	3d ² 4s(² D)5s	³ D	1	0.007	91FOR
5122.082	19 517.872	35	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² G)4p	v ³ G ^o	3	0.003	91FOR
5124.072	19 510.292	30	3d ² 4s ²	a ¹ G	4	—	3d ³ (⁴ F)4p	w ³ G ^o	5	0.003	91FOR
5127.061	19 498.920	21	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.003	91FOR
5127.369	19 497.748	55	3d ³ (² H)4s	a ³ H	6	—	3d ³ (² G)4p	v ³ G ^o	5	0.003	91FOR
5132.929	19 476.626	44	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² G)4p	v ³ G ^o	4	0.003	91FOR
5145.460	19 429.197	2000	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.003	91FOR
5147.477	19 421.584	2300	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.003	91FOR
5152.184	19 403.839	2000	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.003	91FOR
5170.521	19 335.027	24	3d ³ (² G)4s	b ¹ G	4	—	3d ² 4s ² 4p	x ¹ F ^o	3	0.003	91FOR
5173.740	19 322.994	15 000	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.003	91FOR
5178.649	19 304.680	36	3d ² 4s ²	a ³ P	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.003	91FOR
5183.177	19 287.814	29	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	—	3d ² 4s(² F)5s	³ F	3	0.003	91FOR
5183.809	19 285.463	75	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.003	91FOR
5186.328	19 276.098	120	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.003	91FOR
5187.886	19 270.31	5 q	3d ³ (⁴ F)4p	y ⁵ G ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.007	91FOR
5188.832	19 266.794	15	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	—	3d ³ (² D)4s	¹ D	2	0.003	91FOR
5189.578	19 264.024	46	3d ³ (² P)4s	b ³ P	1	—	3d ³ (² D)4p	w ³ P ^o	2	0.003	91FOR
5192.969	19 251.446	17 000	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.003	91FOR
5193.875	19 248.09	25 q	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.007	91FOR
5193.954	19 247.795	19	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
5194.034	19 247.498	180	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.003	91FOR
5201.081	19 221.419	170	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.003	91FOR
5203.117	19 213.899	8	3d ³ (² P)4s	b ³ P	2	—	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.003	91FOR
5206.085	19 202.944	200	3d ³ (² P)4s	a ¹ P	1	—	3d4s ² 4p	w ¹ D ^o	2	0.003	91FOR
5207.849	19 196.441	110	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.003	91FOR
5210.384	19 187.101	21 000	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.003	91FOR
5211.215	19 184.04	56 q	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	0.007	91FOR
5212.280	19 180.120	100	3d ³ (² P)4s	b ³ P	2	—	3d ³ (² D2)4p	w ³ P ^o	2	0.003	91FOR
5212.993	19 177.499	45	3d ³ (² P)4s	b ³ P	0	—	3d ³ (² D2)4p	w ³ P ^o	1	0.003	91FOR
5218.085	19 158.785	35	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ⁴	³ D	1	0.003	91FOR
5219.629	19 153.116	6	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ⁴	³ D	2	0.003	91FOR
5219.699	19 152.859	1100	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.003	91FOR
5220.259	19 150.807	11	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
5222.673	19 141.954	210	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	—	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.003	91FOR
5223.621	19 138.482	260	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.003	91FOR
5224.134	19 136.601	68	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.003	91FOR
5224.305	19 135.976	950	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.003	91FOR
5224.544	19 135.100	380	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.003	91FOR
5224.933	19 133.675	630	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.003	91FOR
5227.19	19 125.43	2	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ⁴	b ³ G	5	0.016	09KIL
5230.972	19 111.585	40	3d ³ (² P)4s	b ³ P	1	—	3d ³ (² D2)4p	w ³ P ^o	1	0.003	91FOR
5233.808	19 101.231	60	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.003	91FOR
5237.537	19 087.631	13	3d ² 4s ²	a ¹ G	4	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.003	91FOR
5238.522	19 084.04	110 q	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.007	91FOR
5238.574	19 083.851	290	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	0.003	91FOR
5239.937	19 078.887	37	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.003	91FOR
5243.702	19 065.189	7	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	0.003	91FOR
5246.127	19 056.378	47	3d ³ (² D2)4s	b ¹ D	2	—	3d4s ² 4p	w ¹ D ^o	2	0.003	91FOR
5246.350	19 055.566	22	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	0	0.003	91FOR
5246.486	19 055.07	4 q	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ⁴	³ D	3	0.007	91FOR
5246.546	19 054.855	170	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.003	91FOR
5246.643	19 054.501	53	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ⁴	³ D	2	0.003	91FOR
5247.288	19 052.160	160	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.003	91FOR
5248.386	19 048.176	23	3d ³ (² G)4s	a ³ G	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.003	91FOR
5250.924	19 038.969	110	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.003	91FOR
5251.478	19 036.959	72	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.003	91FOR
5252.099	19 034.710	790	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.003	91FOR
5252.378	19 033.698	3	3d ³ (⁴ P)4s	c ³ P	0	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.003	91FOR
5253.665	19 029.033	23	3d ³ (² P)4s	b ³ P	1	—	3d ³ (² D2)4p	w ³ P ^o	0	0.003	91FOR
5254.030	19 027.712	5	3d ³ (² P)4s	b ³ P	2	—	3d ³ (² D2)4p	w ³ P ^o	1	0.003	91FOR
5254.495	19 026.029	6	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	0.003	91FOR
5255.806	19 021.282	180	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.003	91FOR
5256.696	19 018.062	19	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	0.003	91FOR
5257.580	19 014.865	43	3d ³ (² P)4s	a ¹ P	1	—	3d ³ (² D2)4p	x ¹ P ^o	1	0.003	91FOR
5259.973	19 006.213	110	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.003	91FOR
5263.483	18 993.542	130	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.003	91FOR
5265.963	18 984.595	450	3d ³ (² G)4s	a ³ G	5	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.003	91FOR
5267.109	18 980.464	2	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.003	91FOR
5268.332	18 976.060	6	3d ³ (⁴ F)4p	x ⁵ D ^o	4	—	3d ² 4p ²	h ⁵ D	4	0.003	91FOR
5269.879	18 970.489	23	3d ³ (² G)4s	a ³ G	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.003	91FOR
5271.609	18 964.261	40	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	—	3d ² 4s(² F)5s	³ F	3	0.003	91FOR
5278.768	18 938.545	2	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.003	91FOR
5282.374	18 925.614	300	3d ² 4s ²	a ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.003	91FOR
5283.437	18 921.807	350	3d ³ (² G)4s	a ³ G	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.003	91FOR
5284.374	18 918.453	130	3d ² 4s ²	a ³ P	0	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.003	91FOR
5288.794	18 902.642	70	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ⁴	³ D	3	0.003	91FOR
5289.267	18 900.953	33	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.003	91FOR
5290.471	18 896.651	4	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.003	91FOR
5295.775	18 877.726	460	3d ² 4s ²	a ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.003	91FOR
5297.233	18 872.529	260	3d ³ (² G)4s	a ³ G	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.003	91FOR
5298.418	18 868.309	210	3d ³ (² D2)4s	b ¹ D	2	—	3d ³ (² D2)4p	x ¹ P ^o	1	0.003	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
5300.010	18 862.639	96	3d ² 4s ²	a ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.003	91FOR
5313.236	18 815.687	78	3d ² 4s ²	a ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.003	91FOR
5323.925	18 777.910	25	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.003	91FOR
5328.735	18 760.961	5	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.003	91FOR
5331.078	18 752.717	7	3d ² 4s ²	a ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.003	91FOR
5338.305	18 727.328	31	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.003	91FOR
5340.663	18 719.062	12	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.003	91FOR
5341.487	18 716.171	36	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	—	3d ⁴	¹ F	3	0.003	91FOR
5344.394	18 705.991	10	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	—	3d ² 4s(² D)5s	¹ D	2	0.003	91FOR
5351.067	18 682.665	160	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.003	91FOR
5361.712	18 645.574	18	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.003	91FOR
5366.637	18 628.462	50	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.003	91FOR
5373.151	18 605.880	2	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ² 4s(² F)4d	³ G	4	0.003	91FOR
5373.543	18 604.523	4	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ² 4s(² F)4d	³ G	5	0.003	91FOR
5374.810	18 600.138	2	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ² 4s(² F)4d	³ G	3	0.003	91FOR
5376.599	18 593.946	19	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.003	91FOR
5382.910	18 572.149	23	3d ³ (² G)4s	a ³ G	3	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.003	91FOR
5384.629	18 566.219	26	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.003	91FOR
5389.164	18 550.596	61*	3d ³ (⁴ F)4p	y ⁵ F ^o	5	—	3d ² 4p ²	g ⁵ G	6	0.003	91FOR
5389.164	18 550.596	61*	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.003	91FOR
5389.988	18 547.759	170	3d ³ (² G)4s	a ³ G	3	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.003	91FOR
5390.494	18 546.020	11	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.003	91FOR
5391.058	18 544.080	24	3d ³ (² G)4s	a ³ G	4	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.003	91FOR
5394.159	18 533.418	6	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.003	91FOR
5396.596	18 525.048	89	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.003	91FOR
5397.062	18 523.448	270	3d ³ (² G)4s	a ³ G	4	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.003	91FOR
5401.380	18 508.642	20	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.004	91FOR
5402.705	18 504.102	5	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.004	91FOR
5404.014	18 499.620	50	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (² D)4p	w ³ P ^o	2	0.004	91FOR
5406.185	18 492.192	7	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ² 4p ²	g ⁵ G	5	0.004	91FOR
5408.940	18 482.772	36	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	0.004	91FOR
5409.605	18 480.499	390	3d ³ (² G)4s	a ³ G	5	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.004	91FOR
5412.679	18 470.005	7	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ⁴	³ D	2	0.004	91FOR
5419.189	18 447.819	13	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ P)4p	y ⁵ S ^o	2	0.004	91FOR
5422.380	18 436.962	6	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ² 4p ²	g ⁵ G	4	0.004	91FOR
5426.248	18 423.819	200	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.004	91FOR
5429.140	18 414.004	120	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (² D)4p	w ³ P ^o	2	0.004	91FOR
5432.334	18 403.179	11	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.004	91FOR
5435.839	18 391.31	6 q	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ² 4p ²	g ⁵ G	3	0.007	91FOR
5436.717	18 388.343	43	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.004	91FOR
5438.306	18 382.969	21	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.004	91FOR
5439.031	18 380.520	9	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.004	91FOR
5440.509	18 375.526	8	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	2	0.004	91FOR
5446.619	18 354.913	94*	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.004	91FOR
5446.619	18 354.913	94*	3d ³ (⁴ P)4s	c ³ P	0	—	3d ³ (² D)4p	w ³ P ^o	1	0.004	91FOR
5447.912	18 350.557	10	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ⁴	³ D	3	0.004	91FOR
5448.787	18 347.609	3	3d ³ (⁴ F)4p	y ⁵ F ^o	1	—	3d ² 4p ²	g ⁵ G	2	0.004	91FOR
5448.911	18 347.192	23	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (² D)4p	w ³ P ^o	1	0.004	91FOR
5449.151	18 346.384	36	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.004	91FOR
5451.935	18 337.017	13	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.004	91FOR
5453.639	18 331.287	77	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.004	91FOR
5455.957	18 323.499	10	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	1	0.004	91FOR
5456.896	18 320.345	12	3d ³ (² H)4s	a ¹ H	5	—	3d ³ (² H)4p	x ³ H ^o	4	0.004	91FOR
5459.679	18 311.007	4	3d ² 4s ²	a ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.004	91FOR
5460.498	18 308.259	310	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.004	91FOR
5465.771	18 290.598	8	3d ² 4s ²	a ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.004	91FOR
5466.006	18 289.810	12	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ² 4s(² D)5s	³ D	1	0.004	91FOR
5468.361	18 281.935	7	3d ² 4s ²	a ¹ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.004	91FOR
5470.454	18 274.939	15	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.004	91FOR
5471.197	18 272.459	85	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.004	91FOR
5472.687	18 267.485	56	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	x ⁵ D ^o	2	0.004	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
5473.544	18 264.624	35	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (² D)4p	w ³ P ^o	0	0.004	91FOR
5474.223	18 262.357	170	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	0.004	91FOR
5474.451	18 261.597	48	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (² D)4p	w ³ P ^o	1	0.004	91FOR
5477.693	18 250.788	260	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.004	91FOR
5480.177	18 242.516	2	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	—	3d ³ (⁴ F)4d	⁵ F	4	0.004	91FOR
5481.409	18 238.416	190	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.004	91FOR
5481.859	18 236.918	120	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.004	91FOR
5486.088	18 222.861	5	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	—	3d ² 4s(² F)4d	f ³ H	4	0.004	91FOR
5487.604	18 217.83	4 q	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ² 4s(² F)4d	f ³ H	5	0.008	91FOR
5488.193	18 215.871	140	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.004	91FOR
5489.873	18 210.299	5	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ² 4s(² F)4d	f ³ H	6	0.004	91FOR
5490.148	18 209.386	330	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	x ³ D ^o	3	0.004	91FOR
5490.848	18 207.063	69	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.004	91FOR
5491.657	18 204.384	18	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ² 4s(² D)5s	³ D	2	0.004	91FOR
5494.121	18 196.219	3	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	—	3d ³ (⁴ F)4d	⁵ F	5	0.004	91FOR
5494.720	18 194.235	6	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.004	91FOR
5497.942	18 183.57	11 q	3d ² 4s ²	a ¹ D	2	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.008	91FOR
5503.897	18 163.897	210	3d ³ (² H)4s	a ¹ H	5	—	3d ³ (² G)4p	x ¹ G ^o	4	0.004	91FOR
5511.778	18 137.926	76	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.004	91FOR
5512.524	18 135.473	940	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.004	91FOR
5514.343	18 129.489	630	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.004	91FOR
5514.532	18 128.869	930	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.004	91FOR
5518.058	18 117.285	15	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.004	91FOR
5527.595	18 086.027	13	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.004	91FOR
5530.435	18 076.739	23	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ² 4s(² D)5s	³ D	3	0.004	91FOR
5537.857	18 052.511	2	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ³ (⁴ F)5s	f ³ F	3	0.004	91FOR
5539.794	18 046.202	3	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ³ (⁴ F)5s	f ³ F	4	0.004	91FOR
5565.473	17 962.938	340	3d ³ (² H)4s	a ³ H	4	—	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	0.004	91FOR
5578.557	17 920.805	3	3d ² 4s ²	a ¹ G	4	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	0.004	91FOR
5595.108	17 867.795	2	3d ² 4s ²	a ¹ G	4	—	3d ³ (⁴ F)4p	x ³ D ^o	3	0.004	91FOR
5598.017	17 858.511	2	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ⁴	³ F1	3	0.004	91FOR
5600.038	17 852.067	7	3d ² 4s ²	a ¹ D	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.004	91FOR
5600.785	17 849.684	9	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ⁴	³ F1	2	0.004	91FOR
5601.465	17 847.517	4	3d ² 4s ²	a ¹ D	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.004	91FOR
5618.346	17 793.894	5	3d ² 4s ²	a ¹ G	4	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.004	91FOR
5622.015	17 782.281	3	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ⁴	³ F1	4	0.004	91FOR
5630.371	17 755.891	3	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ P	3	0.004	91FOR
5635.828	17 738.697	12	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ⁴	³ F1	3	0.004	91FOR
5635.993	17 738.178	5	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	—	3d ² 4s(² D)5s	³ D	1	0.004	91FOR
5644.133	17 712.598	790	3d ³ (² G)4s	b ¹ G	4	—	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	0.004	91FOR
5648.562	17 698.709	150	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.004	91FOR
5654.765	17 679.294	7	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	—	3d ² 4s(² D)5s	³ D	2	0.004	91FOR
5656.079	17 675.188	3	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	—	3d ² 4s(² D)5s	³ D	1	0.004	91FOR
5659.095	17 665.767	20	3d ² 4s ²	a ¹ D	2	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.004	91FOR
5662.148	17 656.241	350	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	5	0.004	91FOR
5662.881	17 653.956	110	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.004	91FOR
5667.592	17 639.282	9	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ⁴	³ F1	2	0.004	91FOR
5673.047	17 622.323	11	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	—	3d ² 4s(² D)5s	³ D	3	0.004	91FOR
5673.419	17 621.167	20	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ⁴	³ F1	4	0.004	91FOR
5674.679	17 617.255	3	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	—	3d ² 4s(² D)5s	³ D	2	0.004	91FOR
5675.409	17 614.989	230	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.004	91FOR
5679.914	17 601.016	72	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.004	91FOR
5689.459	17 571.488	160	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.004	91FOR
5698.401	17 543.915	5	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² G)4p	y ³ H ^o	6	0.004	91FOR
5701.641	17 533.946	7	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.004	91FOR
5702.005	17 532.827	9	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.004	91FOR
5702.659	17 530.817	100	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.004	91FOR
5703.897	17 527.010	8	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ⁴	³ F1	3	0.004	91FOR
5705.385	17 522.441	3	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² G)4p	y ³ H ^o	5	0.004	91FOR
5706.768	17 518.192	3	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ⁴	³ F1	2	0.004	91FOR
5708.198	17 513.805	52	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.004	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
5709.904	17 508.573	2	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ P	1	0.004	91FOR
5711.853	17 502.599	77	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.004	91FOR
5713.881	17 496.387	51	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.004	91FOR
5715.114	17 492.610	200	3d ³ (² H)4s	a ³ H	6	—	3d ³ (² G)4p	y ³ H ^o	6	0.004	91FOR
5716.442	17 488.547	74	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.004	91FOR
5720.435	17 476.339	51	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.004	91FOR
5723.375	17 467.363	2	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ² 4s(⁴ F)4d	³ D	3	0.004	91FOR
5731.113	17 443.778	4	3d ³ (² P)4s	b ³ P	0	—	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.004	91FOR
5734.192	17 434.414	2	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	—	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.004	91FOR
5734.310	17 434.054	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.004	91FOR
5739.049	17 419.657	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.004	91FOR
5739.468	17 418.385	170	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² G)4p	y ³ H ^o	5	0.004	91FOR
5739.978	17 416.839	82	3d ³ (² H)4s	a ³ H	4	—	3d ³ (² G)4p	y ³ H ^o	4	0.004	91FOR
5741.197	17 413.140	17	3d ³ (² D2)4s	b ¹ D	2	—	3d4s ² 4p	x ¹ F ^o	3	0.004	91FOR
5741.394	17 412.542	2	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	—	3d ² 4s(⁴ F)4d	³ D	3	0.004	91FOR
5744.462	17 403.244	4	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	—	3d ² 4s(⁴ F)4d	g ⁵ F	5	0.004	91FOR
5745.065	17 401.418	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.004	91FOR
5751.749	17 381.194	3	3d ³ (⁴ F)4p	y ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ F	1	0.004	91FOR
5752.853	17 377.861	11	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.004	91FOR
5756.424	17 367.080	7	3d ³ (² H)4s	a ³ H	6	—	3d ³ (² G)4p	y ³ H ^o	5	0.004	91FOR
5756.848	17 365.801	18	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ⁴	³ F1	4	0.004	91FOR
5762.209	17 349.644	5	3d ³ (⁴ F)4p	y ⁵ G ^o	3	—	3d ³ (⁴ F)4d	⁵ F	2	0.004	91FOR
5762.284	17 349.418	50	3d ³ (⁴ F)4p	y ⁵ G ^o	2	—	3d ³ (⁴ F)4d	f ⁵ H	3	0.004	91FOR
5763.547	17 345.616	6	3d ³ (² D2)4s	b ¹ D	2	—	3d ³ (² G)4p	v ³ G ^o	3	0.004	91FOR
5766.326	17 337.256	61	3d ³ (⁴ F)4p	y ⁵ G ^o	3	—	3d ³ (⁴ F)4d	f ⁵ H	4	0.004	91FOR
5766.561	17 336.551	3	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ² 4s(⁴ F)4d	³ D	1	0.004	91FOR
5768.322	17 331.257	3	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ² 4s(⁴ F)4d	³ D	2	0.004	91FOR
5771.334	17 322.214	5	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ⁴	³ F1	3	0.004	91FOR
5774.026	17 314.137	75	3d ³ (⁴ F)4p	y ⁵ G ^o	4	—	3d ³ (⁴ F)4d	f ⁵ H	5	0.004	91FOR
5774.475	17 312.790	7	3d ³ (² H)4s	a ³ H	5	—	3d ³ (² G)4p	y ³ H ^o	4	0.004	91FOR
5774.663	17 312.228	6	3d ³ (⁴ F)4p	y ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ F	3	0.004	91FOR
5780.760	17 293.968	23	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.004	91FOR
5785.652	17 279.344	10	3d ³ (⁴ F)4p	y ⁵ G ^o	3	—	3d ³ (⁴ F)4d	f ⁵ H	3	0.004	91FOR
5785.977	17 278.375	90	3d ³ (⁴ F)4p	y ⁵ G ^o	5	—	3d ³ (⁴ F)4d	f ⁵ H	6	0.004	91FOR
5788.080	17 272.096	4	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² G)4p	y ³ H ^o	5	0.004	91FOR
5789.748	17 267.120	8	3d ³ (⁴ F)4p	y ⁵ G ^o	5	—	3d ³ (⁴ F)4d	⁵ F	4	0.004	91FOR
5791.274	17 262.570	4	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ² 4s(⁴ F)4d	³ D	3	0.004	91FOR
5797.430	17 244.241	16	3d ³ (⁴ F)4p	y ⁵ G ^o	4	—	3d ³ (⁴ F)4d	f ⁵ H	4	0.004	91FOR
5804.262	17 223.942	98	3d ³ (⁴ F)4p	y ⁵ G ^o	6	—	3d ³ (⁴ F)4d	f ⁵ H	7	0.004	91FOR
5807.123	17 215.458	2	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ² 4s(⁴ F)4d	³ D	1	0.004	91FOR
5808.198	17 212.271	8	3d ³ (⁴ F)4p	y ⁵ G ^o	6	—	3d ³ (⁴ F)4d	⁵ F	5	0.004	91FOR
5809.788	17 207.562	3	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.004	91FOR
5812.820	17 198.586	17	3d ³ (⁴ F)4p	y ⁵ G ^o	5	—	3d ³ (⁴ F)4d	f ⁵ H	5	0.004	91FOR
5813.946	17 195.256	19	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.004	91FOR
5823.686	17 166.495	65	3d ³ (² G)4s	b ¹ G	4	—	3d ³ (² G)4p	y ³ H ^o	4	0.004	91FOR
5831.936	17 142.211	7	3d ³ (⁴ F)4p	y ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ G	3	0.004	91FOR
5832.473	17 140.633	13	3d ³ (⁴ F)4p	y ⁵ G ^o	6	—	3d ³ (⁴ F)4d	f ⁵ H	6	0.004	91FOR
5834.522	17 134.614	11	3d ³ (⁴ F)4p	y ⁵ G ^o	3	—	3d ³ (⁴ F)4d	⁵ G	4	0.004	91FOR
5837.294	17 126.478	4	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ² 4s(⁴ F)4d	³ D	2	0.004	91FOR
5837.996	17 124.418	15	3d ³ (⁴ F)4p	y ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ G	5	0.004	91FOR
5839.514	17 119.968	12	3d ² 4s ²	a ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	0	0.004	91FOR
5839.760	17 119.246		3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	y ⁵ F ^o	5	0.006	98ALL/GAR
5841.173	17 115.104	15	3d ³ (⁴ F)4p	y ⁵ G ^o	5	—	3d ³ (⁴ F)4d	⁵ G	6	0.004	91FOR
5846.103	17 100.671	3	3d ² 4s ²	a ³ P	0	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.004	91FOR
5847.087	17 097.795	10	3d ³ (⁴ F)4p	y ⁵ G ^o	2	—	3d ³ (⁴ F)4d	⁵ G	2	0.004	91FOR
5852.324	17 082.494	27	3d ² 4s ²	a ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	0.004	91FOR
5855.873	17 072.142	9	3d ³ (⁴ F)4p	y ⁵ G ^o	3	—	3d ³ (⁴ F)4d	⁵ G	3	0.004	91FOR
5865.244	17 044.864	7	3d ² 4s ²	a ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.004	91FOR
5866.362	17 041.615	24	3d ³ (⁴ F)4p	y ⁵ G ^o	4	—	3d ³ (⁴ F)4d	⁵ G	4	0.004	91FOR
5866.449	17 041.363	1100	3d ² 4s ²	a ³ P	2	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.004	91FOR
5869.195	17 033.391	3	3d ² 4s ²	a ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.004	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
5871.146	17 027.729	2	3d ³ (⁴ F)4p	y ⁵ G ^o	3	–	3d ³ (⁴ F)4d	⁵ G	2	0.004	91FOR
5872.425	17 024.02	2 q	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	–	3d ² 4s(⁴ F)4d	e ⁵ P	2	0.009	91FOR
5877.657	17 008.867	14	3d ³ (⁴ F)4p	y ⁵ G ^o	5	–	3d ³ (⁴ F)4d	⁵ G	5	0.004	91FOR
5880.268	17 001.316	140	3d ² 4s ²	a ³ P	1	–	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.004	91FOR
5888.574	16 977.34	23 q	3d ³ (⁴ F)4p	y ⁵ G ^o	6	–	3d ³ (⁴ F)4d	⁵ G	6	0.009	91FOR
5889.813	16 973.763	2	3d ³ (² P)4s	b ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.004	91FOR
5894.092	16 961.442	3	3d ² 4s ²	a ³ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	0.004	91FOR
5899.291	16 946.492	670	3d ² 4s ²	a ³ P	1	–	3d ³ (⁴ F)4p	y ³ D ^o	2	0.004	91FOR
5903.315	16 934.943	150	3d ² 4s ²	a ³ P	2	–	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.004	91FOR
5904.334	16 932.02	5 q	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	–	3d ² 4s(⁴ F)4d	e ⁵ P	3	0.009	91FOR
5906.296	16 926.394	3	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	e ⁵ P	2	0.004	91FOR
5906.420	16 926.038	2	3d ³ (⁴ F)4p	y ⁵ G ^o	5	–	3d ³ (⁴ F)4d	⁵ G	4	0.004	91FOR
5913.723	16 905.137	15	3d ² 4s ²	a ³ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	0.004	91FOR
5918.534	16 891.396	300	3d ² 4s ²	a ³ P	2	–	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.004	91FOR
5919.070	16 889.867	6	3d ³ (² P)4s	b ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.004	91FOR
5922.108	16 881.203	310	3d ² 4s ²	a ³ P	0	–	3d ³ (⁴ F)4p	y ³ D ^o	1	0.004	91FOR
5937.807	16 836.570	99	3d ² 4s ²	a ³ P	2	–	3d ³ (⁴ F)4p	y ³ D ^o	2	0.004	91FOR
5940.646	16 828.524	24	3d ² 4s ²	a ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	0.004	91FOR
5941.750	16 825.397	230	3d ² 4s ²	a ³ F	1	–	3d ³ (⁴ F)4p	y ³ D ^o	1	0.004	91FOR
5944.658	16 817.167	19	3d ² 4s ²	a ³ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	0.004	91FOR
5953.157	16 793.157	1400	3d ³ (² G)4s	a ³ G	5	–	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	6	0.004	91FOR
5957.361	16 781.306	10	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	–	3d ² 4s(⁴ F)4d	³ G	5	0.004	91FOR
5958.746	16 777.408	3	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.004	91FOR
5964.461	16 761.33	2 q	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	–	3d ² 4s(⁴ F)4d	g ³ F	3	0.009	91FOR
5964.802	16 760.373	4	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	–	3d ² 4s(⁴ F)4d	³ G	3	0.004	91FOR
5965.825	16 757.500	1200	3d ³ (² G)4s	a ³ G	4	–	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	5	0.004	91FOR
5969.138	16 748.199	7	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	–	3d ² 4s(⁴ F)4d	³ G	4	0.004	91FOR
5971.175	16 742.486	13	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ⁴	b ³ G	3	0.004	91FOR
5978.539	16 721.864	1000	3d ³ (² G)4s	a ³ G	3	–	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	4	0.004	91FOR
5979.657	16 718.736	2	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	–	3d ² 4s(⁴ F)4d	g ³ F	4	0.004	91FOR
5980.822	16 715.479	9	3d ² 4s ²	a ³ P	2	–	3d ³ (⁴ F)4p	y ³ D ^o	1	0.004	91FOR
5982.530	16 710.708	17	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ⁴	b ³ G	4	0.004	91FOR
5984.576	16 704.995	20	3d ² 4s ²	a ³ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	0.004	91FOR
5988.551	16 693.905	51	3d ³ (² G)4s	a ³ G	5	–	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	5	0.004	91FOR
5990.526	16 688.402	2	3d ² 4s ²	a ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	0.004	91FOR
5995.662	16 674.107	19	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	–	3d ² 4s(² F)5s	³ F	3	0.004	91FOR
5995.996	16 673.177	51	3d ³ (² G)4s	a ³ G	4	–	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	4	0.004	91FOR
5999.008	16 664.806	20	3d ³ (² D2)4s	a ³ D	3	–	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.004	91FOR
5999.657	16 663.004	140	3d ³ (² H)4s	a ³ H	4	–	3d ³ (² G)4p	z ¹ H ^o	5	0.004	91FOR
6002.630	16 654.751	15	3d ³ (² D2)4s	a ³ D	2	–	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.004	91FOR
6012.727	16 626.79	22 q	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ⁴	b ³ G	5	0.009	91FOR
6013.413	16 624.886	15	3d ² 4s ²	a ³ P	2	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.004	91FOR
6014.765	16 621.149	3	3d ³ (⁴ P)4s	c ³ P	0	–	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.004	91FOR
6016.994	16 614.994	4	3d ² 4s ²	a ³ P	1	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.004	91FOR
6017.545	16 613.471	7	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.004	91FOR
6018.394	16 611.129	13	3d ³ (² D2)4s	a ³ D	1	–	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	0.004	91FOR
6018.636	16 610.460	21	3d ² 4s ²	a ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.004	91FOR
6031.668	16 574.573	12	3d ² 4s ²	a ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	0.004	91FOR
6048.717	16 527.855	5	3d ³ (⁴ P)4s	c ³ P	2	–	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.004	91FOR
6057.067	16 505.070	5	3d ² 4s ²	a ³ P	2	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.004	91FOR
6058.731	16 500.539	7	3d ² 4s ²	a ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.004	91FOR
6064.623	16 484.506	250	3d ² 4s ²	a ³ P	0	–	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.004	91FOR
6069.271	16 471.884	2	3d ³ (² G)4s	a ³ G	4	–	3d ³ (⁴ F)4p	w ³ G ^o	5	0.004	91FOR
6085.225	16 428.699	620	3d ² 4s ²	a ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.004	91FOR
6091.169	16 412.665	360	3d ³ (² G)4s	b ¹ G	4	–	3d ³ (² G)4p	z ¹ H ^o	5	0.004	91FOR
6092.790	16 408.300	53	3d ³ (² G)4s	a ³ G	5	–	3d ³ (⁴ F)4p	w ³ G ^o	5	0.004	91FOR
6098.657	16 392.514	96	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	–	3d ² 4s(⁴ F)5s	e ¹ F	3	0.004	91FOR
6102.809	16 381.363	2	3d ³ (² G)4s	a ³ G	3	–	3d ³ (⁴ F)4p	w ³ G ^o	4	0.004	91FOR
6120.999	16 332.682	45	3d ³ (² G)4s	a ³ G	4	–	3d ³ (⁴ F)4p	w ³ G ^o	4	0.004	91FOR
6126.214	16 318.778	860	3d ² 4s ²	a ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.005	91FOR
6132.781	16 301.305	5	3d ³ (² F)4s	¹ F	3	–	3d ³ (² D2)4p	u ¹ D ^o	2	0.005	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
6138.415	16 286.343	30	3d ³ (² D2)4s	a ³ D	1	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.005	91FOR
6145.633	16 267.215	2	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.005	91FOR
6146.207	16 265.695	34	3d ³ (² G)4s	a ³ G	3	—	3d ³ (⁴ F)4p	w ³ G ^o	3	0.005	91FOR
6147.758	16 261.592	3	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ² 4s(² F)5s	³ F	3	0.005	91FOR
6149.170	16 257.857	4	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	—	3d ² 4s(⁴ F)4d	e ⁵ D	4	0.005	91FOR
6149.725	16 256.392	46	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.005	91FOR
6150.634	16 253.988	3	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ² 4s(² F)5s	³ F	4	0.005	91FOR
6157.343	16 236.278	9	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.005	91FOR
6158.961	16 232.013	6	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.005	91FOR
6174.751	16 190.504	9	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.005	91FOR
6186.138	16 160.704	64	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.005	91FOR
6193.390	16 141.780	16	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ² 4s(² F)5s	³ F	3	0.005	91FOR
6194.050	16 140.060	6	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.005	91FOR
6200.317	16 123.747	2	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.005	91FOR
6200.747	16 122.628	4	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	—	3d ⁴	¹ G2	4	0.005	91FOR
6201.239	16 121.35	3 q	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	y ¹ P ^o	1	0.010	91FOR
6205.224	16 110.995	22	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.005	91FOR
6209.291	16 100.443	7	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ P ^o	2	0.005	91FOR
6212.211	16 092.877	24	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ² 4s(² F)5s	³ F	4	0.005	91FOR
6212.739	16 091.508	3	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	—	3d ² 4s(² F)5s	³ F	2	0.005	91FOR
6214.494	16 086.965	13	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ² 4s(² F)5s	³ F	2	0.005	91FOR
6215.230	16 085.059	200	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.005	91FOR
6220.472	16 071.504	150	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.005	91FOR
6221.296	16 069.376	120	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ² 4s(² F)5s	e ³ F	2	0.005	91FOR
6221.430	16 069.029	3	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	—	3d ² 4s(² F)4d	³ F	3	0.005	91FOR
6240.964	16 018.735	2	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	—	3d ² 4s(² F)4d	³ F	4	0.005	91FOR
6257.802	15 975.632	12	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.005	91FOR
6258.099	15 974.874	1600	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.005	91FOR
6258.705	15 973.327	2200	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.005	91FOR
6261.096	15 967.228	1200	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.005	91FOR
6264.808	15 957.766	8	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.005	91FOR
6266.009	15 954.708	16	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (⁴ F)4p	x ⁵ D ^o	4	0.005	91FOR
6268.522	15 948.312	41	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.005	91FOR
6273.386	15 935.948	12	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	0.005	91FOR
6277.492	15 925.523	3	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ³ (⁴ F)4p	x ⁵ D ^o	2	0.005	91FOR
6293.001	15 886.276	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.005	91FOR
6295.253	15 880.592	9*	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ² 4s(⁴ F)4d	³ D	3	0.005	91FOR
6295.253	15 880.592	9*	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.005	91FOR
6295.943	15 878.854	6	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ F)4p	x ³ D ^o	2	0.005	91FOR
6296.644	15 877.086	43	3d ² 4s ²	a ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.005	91FOR
6296.861	15 876.54	6 q	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ² 4s(² F)5s	³ F	2	0.010	91FOR
6298.073	15 873.483	4	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ³ (⁴ F)4p	x ³ D ^o	1	0.005	91FOR
6303.355	15 860.182	4	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.005	91FOR
6303.754	15 859.178	110	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.005	91FOR
6311.281	15 840.264	10	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.005	91FOR
6312.234	15 837.871	110	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.005	91FOR
6312.380	15 837.506	8	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ² 4s(² F)5s	³ F	4	0.005	91FOR
6318.044	15 823.307	96	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.005	91FOR
6324.659	15 806.758	4	3d ³ (² F)4s	³ F	4	—	3d ³ (⁴ P)4p	r ³ D ^o	3	0.005	91FOR
6325.162	15 805.501	28	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.005	91FOR
6336.096	15 778.226	140	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.005	91FOR
6345.242	15 755.484	2	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ² 4s(² F)5s	³ F	2	0.005	91FOR
6357.423	15 725.297	2*	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ² 4s(² F)5s	³ F	3	0.005	91FOR
6357.423	15 725.297	2*	3d ³ (⁴ P)4p	x ³ P ^o	2	—	3d ² 4p ²	e ³ D	3	0.005	91FOR
6358.685	15 722.176	6	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.005	91FOR
6359.173	15 720.968	5	3d ³ (² D2)4s	a ³ D	1	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.005	91FOR
6359.885	15 719.208	14	3d ² 4s ²	a ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	0.005	91FOR
6361.335	15 715.627	5	3d ³ (² D2)4s	a ³ D	1	—	3d ³ (⁴ P)4p	x ³ P ^o	0	0.005	91FOR
6364.850	15 706.947	5	3d ² 4s ²	a ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.005	91FOR
6366.344	15 703.260	150	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.005	91FOR
6371.495	15 690.566	10	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (⁴ P)4p	x ³ P ^o	2	0.005	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
6381.223	15 666.645	9	3d ³ (² D)4s	a ³ D	2	–	3d ³ (⁴ P)4p	x ³ F ^o	1	0.005	91FOR
6395.467	15 631.753	11	3d ² 4s ²	a ¹ G	4	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.005	91FOR
6407.800	15 601.667	3	3d ³ (² F)4s	³ F	3	–	3d ³ (⁴ P)4p	r ³ D ^o	2	0.005	91FOR
6413.102	15 588.770	3	3d ² 4s ²	a ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.005	91FOR
6419.087	15 574.234	22	3d ³ (² D)4s	a ³ D	3	–	3d ³ (⁴ P)4p	x ³ P ^o	2	0.005	91FOR
6479.444	15 429.160	3	3d ³ (² F)4s	¹ F	3	–	3d ³ (² P)4p	¹ D ^o	2	0.005	91FOR
6497.682	15 385.852	43	3d ³ (⁴ F)4s	b ³ F	3	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.005	91FOR
6508.119	15 361.179	37	3d ³ (⁴ F)4s	b ³ F	2	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.005	91FOR
6508.383	15 360.555	3	3d ³ (⁴ F)4p	y ⁵ G ^o	4	–	3d ² 4s(⁴ F)4d	e ⁵ H	5	0.005	91FOR
6512.531	15 350.771	3	3d ³ (⁴ F)4p	y ⁵ G ^o	5	–	3d ² 4s(⁴ F)4d	e ⁵ H	6	0.005	91FOR
6518.243	15 337.319	4	3d ³ (⁴ F)4p	y ⁵ F ^o	3	–	3d ³ (⁴ F)4d	⁵ F	4	0.005	91FOR
6519.398	15 334.604	2	3d ³ (⁴ F)4p	y ⁵ F ^o	4	–	3d ³ (⁴ F)4d	⁵ F	5	0.005	91FOR
6521.013	15 330.804	5	3d ³ (⁴ F)4p	y ⁵ F ^o	2	–	3d ³ (⁴ F)4d	⁵ F	3	0.005	91FOR
6526.578	15 317.734	3	3d ³ (⁴ F)4p	y ⁵ F ^o	1	–	3d ³ (⁴ F)4d	⁵ F	2	0.005	91FOR
6536.422	15 294.665	6	3d ³ (⁴ F)4p	y ⁵ G ^o	6	–	3d ² 4s(⁴ F)4d	e ⁵ H	7	0.005	91FOR
6543.039	15 279.197	9	3d ³ (⁴ F)4p	y ⁵ F ^o	1	–	3d ³ (⁴ F)4d	⁵ F	1	0.005	91FOR
6544.749	15 275.205	12	3d ³ (⁴ F)4p	y ⁵ F ^o	2	–	3d ³ (⁴ F)4d	⁵ F	2	0.005	91FOR
6546.266	15 271.666	190	3d ³ (⁴ F)4s	b ³ F	2	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.005	91FOR
6548.324	15 266.865	18	3d ³ (⁴ F)4p	y ⁵ F ^o	3	–	3d ³ (⁴ F)4d	⁵ F	3	0.005	91FOR
6554.222	15 253.127	280	3d ³ (⁴ F)4s	b ³ F	3	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.005	91FOR
6554.826	15 251.722	27	3d ³ (⁴ F)4p	y ⁵ F ^o	4	–	3d ³ (⁴ F)4d	⁵ F	4	0.005	91FOR
6556.061	15 248.850	380	3d ³ (⁴ F)4s	b ³ F	4	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.005	91FOR
6561.305	15 236.662	4	3d ³ (⁴ F)4p	y ⁵ F ^o	2	–	3d ³ (⁴ F)4d	⁵ F	1	0.005	91FOR
6564.256	15 229.813	3	3d ³ (² D)4s	b ¹ D	2	–	3d ² (³ P)4s4p(¹ P ^o)	y ³ S ^o	1	0.005	91FOR
6565.502	15 226.922	39	3d ³ (⁴ F)4p	y ⁵ F ^o	5	–	3d ³ (⁴ F)4d	⁵ F	5	0.005	91FOR
6572.259	15 211.266	6	3d ³ (⁴ F)4p	y ⁵ F ^o	3	–	3d ³ (⁴ F)4d	⁵ F	2	0.005	91FOR
6575.164	15 204.547	40	3d ³ (² H)4s	a ¹ H	5	–	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	0.005	91FOR
6585.245	15 181.270	6	3d ³ (⁴ F)4p	y ⁵ F ^o	4	–	3d ³ (⁴ F)4d	⁵ F	3	0.005	91FOR
6592.914	15 163.611	6	3d ³ (⁴ F)4s	b ³ F	3	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.005	91FOR
6599.105	15 149.386	330	3d ² 4s ²	a ¹ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.005	91FOR
6601.447	15 144.011	9*	3d ³ (⁴ F)4p	y ⁵ F ^o	5	–	3d ³ (⁴ F)4d	⁵ F	4	0.005	91FOR
6601.447	15 144.011	9*	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	–	3d ² 4s(⁴ F)4d	³ G	5	0.005	91FOR
6613.625	15 116.127	4*	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	–	3d ⁴	³ F2	4	0.005	91FOR
6613.625	15 116.127	4*	3d ³ (⁴ F)4s	b ³ F	4	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.005	91FOR
6622.307	15 096.308	3	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	–	3d ³ (² G)5s	¹ G	4	0.005	91FOR
6622.622	15 095.591	6	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	–	3d ² 4s(⁴ F)4d	g ³ F	3	0.005	91FOR
6622.874	15 095.016	4	3d ³ (² P)4s	b ³ P	0	–	3d ³ (⁴ P)4p	x ³ P ^o	1	0.005	91FOR
6628.376	15 082.486	6	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	–	3d ² 4s(⁴ F)4d	³ G	4	0.005	91FOR
6628.852	15 081.403	7	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	–	3d ² 4s(⁴ F)4d	g ³ F	4	0.005	91FOR
6634.551	15 068.448	5	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	–	3d ² 4s(⁴ F)4d	g ³ F	2	0.005	91FOR
6636.350	15 064.363	3	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	–	3d ² 4s(⁴ F)4d	³ G	3	0.005	91FOR
6641.343	15 053.038	6	3d ³ (² P)4s	b ³ P	1	–	3d ³ (² P)4p	x ³ P ^o	2	0.005	91FOR
6651.922	15 029.099	3	3d ³ (² P)4s	b ³ P	1	–	3d ³ (⁴ P)4p	x ³ P ^o	1	0.005	91FOR
6654.283	15 023.766	6	3d ³ (² P)4s	b ³ P	1	–	3d ³ (⁴ P)4p	x ³ P ^o	0	0.005	91FOR
6665.850	14 997.696	18	3d ³ (⁴ F)4p	y ⁵ F ^o	2	–	3d ³ (⁴ F)4d	⁵ G	3	0.005	91FOR
6666.501	14 996.231	25	3d ³ (⁴ F)4p	y ⁵ F ^o	3	–	3d ³ (⁴ F)4d	⁵ G	4	0.005	91FOR
6666.691	14 995.805	13	3d ³ (⁴ F)4p	y ⁵ F ^o	1	–	3d ³ (⁴ F)4d	⁵ G	2	0.005	91FOR
6667.733	14 993.462	29	3d ³ (⁴ F)4p	y ⁵ F ^o	4	–	3d ³ (⁴ F)4d	⁵ G	5	0.005	91FOR
6668.375	14 992.017	34	3d ³ (⁴ F)4p	y ⁵ F ^o	5	–	3d ³ (⁴ F)4d	⁵ G	6	0.005	91FOR
6677.175	14 972.259	31	3d ³ (² P)4s	a ¹ P	1	–	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.005	91FOR
6678.569	14 969.135	28	3d ³ (² P)4s	b ³ P	2	–	3d ³ (⁴ P)4p	x ³ P ^o	2	0.005	91FOR
6685.645	14 953.292	2	3d ³ (⁴ F)4p	y ⁵ F ^o	2	–	3d ³ (⁴ F)4d	⁵ G	2	0.005	91FOR
6689.258	14 945.214	15	3d ³ (² P)4s	b ³ P	2	–	3d ³ (⁴ P)4p	x ³ P ^o	1	0.005	91FOR
6694.383	14 933.773	2	3d ³ (⁴ F)4p	y ⁵ F ^o	3	–	3d ³ (⁴ F)4d	⁵ G	3	0.005	91FOR
6706.284	14 907.273	4	3d ² 4s ²	a ¹ G	4	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.005	91FOR
6716.665	14 884.231	49	3d ³ (² P)4s	a ¹ P	1	–	3d ² (³ P)4s4p(³ P ^o)	y ¹ P ^o	1	0.005	91FOR
6743.119	14 825.839	630	3d ² 4s ²	a ¹ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.005	91FOR
6743.200	14 825.663	54	3d ³ (² D)4s	b ¹ D	2	–	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	0.005	91FOR
6745.546	14 820.506	35	3d ³ (² H)4s	a ³ H	4	–	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.005	91FOR
6746.330	14 818.784	11	3d ³ (² G)4s	a ³ G	5	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	0.005	91FOR
6748.377	14 814.289	4	3d ³ (² G)4s	a ³ G	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.005	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
6751.94	14 806.47	0	3d ³ (² G)4s	a ³ G	3	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.07	27RUS1
6763.961	14 780.157	22	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ² 4s(⁴ F)4d	³ H	6	0.005	91FOR
6776.220	14 753.418	17	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ H	5	0.006	91FOR
6783.461	14 737.669	12	3d ³ (² D2)4s	b ¹ D	2	—	3d ² (³ P)4s4p(³ P ^o)	y ¹ P ^o	1	0.006	91FOR
6793.546	14 715.792	11	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	—	3d ² 4s(⁴ F)4d	³ H	4	0.006	91FOR
6811.020	14 678.037	3	3d ³ (² F)4s	³ F	4	—	3d ³ (² D2)4p	s ³ D ^o	3	0.006	91FOR
6818.112	14 662.77	3 q	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ⁴	b ³ G	4	0.012	91FOR
6839.428	14 617.07	2 q	3d ³ (² F)4s	³ F	3	—	3d ³ (² D2)4p	s ³ D ^o	2	0.012	91FOR
6841.680	14 612.260	2	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ⁴	b ³ G	5	0.006	91FOR
6849.314	14 595.974	31	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	—	3d ⁴	b ³ G	3	0.006	91FOR
6861.447	14 570.165	98	3d ³ (² G)4s	b ¹ G	4	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.006	91FOR
6873.891	14 543.789	35	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ⁴	b ³ G	4	0.006	91FOR
6905.616	14 476.974	3	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	—	3d ⁴	b ³ G	3	0.006	91FOR
6913.232	14 461.024	48	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ⁴	b ³ G	5	0.006	91FOR
6915.854	14 455.543	2	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ² 4s(² F)5s	³ F	4	0.006	91FOR
6920.701	14 445.418	3	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ² 4s(⁴ F)4d	g ⁵ F	3	0.006	91FOR
6921.571	14 443.603	5	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.006	91FOR
6922.278	14 442.127	2	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ² 4s(⁴ F)4d	g ⁵ F	2	0.006	91FOR
6926.200	14 433.950	7	3d ³ (⁴ F)4p	y ⁵ F ^o	5	—	3d ² 4s(⁴ F)4d	g ⁵ F	5	0.006	91FOR
6930.961	14 424.034	2	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	—	3d ³ (⁴ F)5s	f ³ F	2	0.006	91FOR
6933.139	14 419.503	15	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ³ (⁴ F)5s	f ³ F	2	0.006	91FOR
6935.882	14 413.802	22	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ³ (⁴ F)5s	f ³ F	3	0.006	91FOR
6943.689	14 397.595	26	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ³ (⁴ F)5s	f ³ F	4	0.006	91FOR
6946.112	14 392.572	3	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	—	3d ⁴	b ³ G	4	0.006	91FOR
6963.767	14 356.084	4	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.006	91FOR
6983.119	14 316.300	16	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	0	0.006	91FOR
6990.226	14 301.745	28	3d ³ (² D2)4s	a ³ D	2	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.006	91FOR
6991.230	14 299.691	2	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ³ (⁴ F)5s	f ³ F	2	0.006	91FOR
6996.637	14 288.641	41	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ P)4p	x ³ P ^o	2	0.006	91FOR
6997.458	14 286.963	3	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	0.006	91FOR
7000.141	14 281.487	2	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	—	3d ⁴	³ P2	0	0.006	91FOR
7004.601	14 272.395	34	3d ³ (⁴ P)4s	c ³ P	0	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.006	91FOR
7007.954	14 265.566	28	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	2	0.006	91FOR
7008.373	14 264.714	25	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.006	91FOR
7011.001	14 259.367	31	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ P)4p	x ³ P ^o	0	0.006	91FOR
7014.282	14 252.697	2	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ³ (⁴ F)5s	f ³ F	3	0.006	91FOR
7033.310	14 214.136	6	3d ² 4s ²	a ¹ D	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.006	91FOR
7035.802	14 209.102	23	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ³ (⁴ F)5s	f ³ F	2	0.006	91FOR
7038.812	14 203.027	100	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ P)4p	x ³ P ^o	2	0.006	91FOR
7039.264	14 202.115	25	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ³ (⁴ F)5s	f ³ F	3	0.006	91FOR
7050.686	14 179.107	32	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ P)4p	x ³ P ^o	1	0.006	91FOR
7061.299	14 157.797	3	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.006	91FOR
7065.210	14 149.959	40	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	0.006	91FOR
7069.073	14 142.227	48	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ³ (⁴ F)5s	f ³ F	4	0.006	91FOR
7084.244	14 111.942	3	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.006	91FOR
7109.077	14 062.647	13	3d ³ (⁴ F)4p	x ⁵ D ^o	4	—	3d ³ (⁴ F)4d	⁵ F	5	0.006	91FOR
7109.218	14 062.367	6	3d ³ (⁴ F)4p	x ⁵ D ^o	2	—	3d ³ (⁴ F)4d	⁵ F	3	0.006	91FOR
7110.328	14 060.173	7	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.006	91FOR
7111.026	14 058.793	5	3d ³ (⁴ F)4p	x ⁵ D ^o	1	—	3d ³ (⁴ F)4d	⁵ F	2	0.006	91FOR
7113.501	14 053.901	7	3d ³ (⁴ F)4p	x ⁵ D ^o	3	—	3d ³ (⁴ F)4d	⁵ F	4	0.006	91FOR
7117.296	14 046.408	3	3d ³ (⁴ F)4p	x ⁵ D ^o	0	—	3d ³ (⁴ F)4d	⁵ F	1	0.006	91FOR
7130.303	14 020.785	34	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.006	91FOR
7130.572	14 020.256	2	3d ³ (⁴ F)4p	x ⁵ D ^o	1	—	3d ³ (⁴ F)4d	⁵ F	1	0.006	91FOR
7137.436	14 006.772	2	3d ³ (⁴ F)4p	x ⁵ D ^o	2	—	3d ³ (⁴ F)4d	⁵ F	2	0.006	91FOR
7138.074	14 005.521	10	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.006	91FOR
7138.903	14 003.895	99	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.006	91FOR
7142.252	13 997.327	3	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ³ (⁴ F)5s	f ³ F	3	0.006	91FOR
7149.345	13 983.441	2	3d ³ (⁴ F)4p	x ⁵ D ^o	3	—	3d ³ (⁴ F)4d	⁵ F	3	0.006	91FOR
7151.227	13 979.760	2	3d ³ (⁴ F)4p	x ⁵ D ^o	4	—	3d ³ (⁴ F)4d	⁵ F	4	0.006	91FOR
7160.336	13 961.976	37	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.006	91FOR
7188.562	13 907.154	72	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.006	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
7189.877	13 904.612	170	3d ³ (² H)4s	a ¹ H	5	—	3d ³ (² G)4p	z ¹ H ^o	5	0.006	91FOR
7209.434	13 866.892	1300	3d ³ (⁴ F)4s	b ³ F	4	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.006	91FOR
7213.348	13 859.368	41	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.006	91FOR
7216.182	13 853.925	320	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.006	91FOR
7227.375	13 832.470	7	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	—	3d ⁴	¹ G ²	4	0.006	91FOR
7233.300	13 821.140	16	3d ³ (² D)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.006	91FOR
7233.390	13 820.967	4	3d ³ (² H)4s	a ³ H	6	—	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	6	0.006	91FOR
7236.786	13 814.481	17	3d ³ (² D)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.006	91FOR
7243.124	13 802.393	10	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.006	91FOR
7244.853	13 799.100	770	3d ³ (⁴ F)4s	b ³ F	3	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.006	91FOR
7251.708	13 786.056	650	3d ³ (⁴ F)4s	b ³ F	2	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.006	91FOR
7253.754	13 782.168	98*	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.006	91FOR
7253.754	13 782.168	98*	3d ³ (² D)4s	a ³ D	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.006	91FOR
7258.567	13 773.029	3	3d ³ (² H)4s	a ³ H	5	—	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	5	0.006	91FOR
7261.844	13 766.813	26	3d ³ (² D)4s	a ³ D	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.006	91FOR
7265.359	13 760.154	9	3d ³ (² D)4s	a ³ D	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.006	91FOR
7266.246	13 758.474	42	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.006	91FOR
7267.932	13 755.282	4	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	—	3d ² 4s(² D)5s	¹ D	2	0.006	91FOR
7268.445	13 754.311	11	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ² 4s(² F)5s	³ F	3	0.006	91FOR
7271.505	13 748.522	27	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.006	91FOR
7273.704	13 744.366	51	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	2	0.006	91FOR
7280.748	13 731.069	16	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ² 4s(² F)5s	³ F	4	0.006	91FOR
7281.257	13 730.109	42	3d ³ (² P)4s	b ³ P	0	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.006	91FOR
7281.74	13 729.20	3 h	3d ⁴	³ H	5	—	3d ³ (⁴ F _{5/2})4f	[5,5] ^o	6	0.07	27RUS1
7290.975	13 711.809	7	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.006	91FOR
7299.689	13 695.440	31*	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.006	91FOR
7299.689	13 695.440	31*	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	—	3d ² 4s(² F)5s	³ F	2	0.006	91FOR
7305.989	13 683.631	16	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	1	0.006	91FOR
7315.511	13 665.820	62	3d ³ (² D)4s	a ³ D	3	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.006	91FOR
7316.372	13 664.212	41	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.006	91FOR
7318.376	13 660.470	190	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	2	0.006	91FOR
7323.730	13 650.483	11	3d ³ (² D)4s	a ³ D	3	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.006	91FOR
7330.990	13 636.966	47	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	1	0.006	91FOR
7332.260	13 634.603	47	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.006	91FOR
7337.728	13 624.443	40	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	0	0.006	91FOR
7344.695	13 611.519	430	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.006	91FOR
7352.119	13 597.774	32	3d ³ (² P)4s	a ¹ P	1	—	3d ² (¹ D)4s4p(¹ P ^o)	z ¹ P ^o	1	0.006	91FOR
7356.994	13 588.765	4	3d ² 4s ²	a ³ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.006	91FOR
7357.726	13 587.413	340	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.006	91FOR
7361.570	13 580.318	44	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.007	91FOR
7364.099	13 575.654	250	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.007	91FOR
7366.559	13 571.121	54	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.007	91FOR
7391.511	13 525.307	6	3d ² 4s ²	a ¹ G	4	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.007	91FOR
7397.489	13 514.378	4	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.007	91FOR
7397.933	13 513.567	2	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.007	91FOR
7402.671	13 504.918	6	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.007	91FOR
7412.253	13 487.460	3	3d ³ (² H)4s	a ³ H	5	—	3d ³ (⁴ F)4p	w ³ G ^o	5	0.007	91FOR
7413.012	13 486.078	9	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.007	91FOR
7416.989	13 478.847	8	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.007	91FOR
7420.360	13 472.724	4	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.007	91FOR
7423.184	13 467.598	8	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.007	91FOR
7424.585	13 465.058	9	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.007	91FOR
7431.642	13 452.272	3	3d ³ (² H)4s	a ³ H	4	—	3d ³ (⁴ F)4p	w ³ G ^o	4	0.007	91FOR
7432.225	13 451.217	4	3d ³ (² D)4s	b ¹ D	2	—	3d ² (¹ D)4s4p(¹ P ^o)	z ¹ P ^o	1	0.007	91FOR
7432.670	13 450.411	5	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.007	91FOR
7433.318	13 449.239	2*	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.007	91FOR
7433.318	13 449.239	2*	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.007	91FOR
7440.576	13 436.119	68	3d ³ (² H)4s	a ³ H	6	—	3d ³ (⁴ F)4p	w ³ G ^o	5	0.007	91FOR
7456.582	13 407.278	9	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.007	91FOR
7469.938	13 383.307	13	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.007	91FOR
7474.162	13 375.743	2	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.007	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
7474.93	13 374.37	1	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	–	3d ⁴	³ D	1	0.07	20KIE/MEG
7489.579	13 348.209	59	3d ³ (² H)4s	a ³ H	5	–	3d ³ (⁴ F)4p	w ³ G ^o	4	0.007	91FOR
7491.360	13 345.036	6	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.007	91FOR
7496.103	13 336.592	41	3d ³ (² H)4s	a ³ H	4	–	3d ³ (⁴ F)4p	w ³ G ^o	3	0.007	91FOR
7542.918	13 253.819	3	3d ³ (² G)4p	z ¹ H ^o	5	–	3d ³ (² G)5s	¹ G	4	0.007	91FOR
7545.742	13 248.860	4	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	–	3d ⁴	³ D	2	0.007	91FOR
7553.967	13 234.434	5	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	–	3d ³ (² D1)4s	³ D	1	0.007	91FOR
7567.821	13 210.207	4	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	–	3d ² 4s(² F)4d	e ¹ G	4	0.007	91FOR
7580.265	13 188.520	29	3d ³ (² P)4s	b ³ P	0	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.007	91FOR
7594.409	13 163.957	6	3d ³ (⁴ F)4p	y ³ D ^o	1	–	3d ⁴	³ D	1	0.007	91FOR
7597.699	13 158.258	3	3d ³ (⁴ F)4p	y ³ D ^o	1	–	3d ⁴	³ D	2	0.007	91FOR
7614.464	13 129.286	59	3d ³ (² P)4s	b ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.007	91FOR
7618.048	13 123.109	6	3d ³ (⁴ F)4p	y ⁵ F ^o	5	–	3d ² 4s(⁴ F)4d	e ⁵ G	6	0.007	91FOR
7618.331	13 122.623	23	3d ³ (² P)4s	b ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.007	91FOR
7620.614	13 118.691	2	3d ³ (⁴ F)4p	y ⁵ F ^o	2	–	3d ² 4s(⁴ F)4d	e ⁵ G	3	0.007	91FOR
7620.825	13 118.328	6	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	–	3d ³ (² D1)4s	³ D	2	0.007	91FOR
7622.159	13 116.032	3	3d ³ (⁴ F)4p	y ⁵ F ^o	3	–	3d ² 4s(⁴ F)4d	e ⁵ G	4	0.007	91FOR
7622.677	13 115.14	2 q	3d ³ (⁴ F)4p	y ⁵ F ^o	4	–	3d ² 4s(⁴ F)4d	e ⁵ G	5	0.015	91FOR
7638.321	13 088.279	6	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	–	3d ⁴	³ D	3	0.007	91FOR
7639.504	13 086.253	9	3d ³ (² G)4s	b ¹ G	4	–	3d ³ (⁴ F)4p	w ³ G ^o	3	0.007	91FOR
7654.436	13 060.725	99	3d ³ (² P)4s	b ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.007	91FOR
7663.437	13 045.385	21	3d ³ (² P)4s	b ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.007	91FOR
7664.914	13 042.871	2	3d ³ (⁴ F)4p	y ³ D ^o	2	–	3d ⁴	³ D	1	0.007	91FOR
7665.221	13 042.349	2	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	–	3d ⁴	³ F1	2	0.007	91FOR
7667.355	13 038.718	2	3d ³ (² P)4s	b ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.007	91FOR
7668.250	13 037.20	6 q	3d ³ (⁴ F)4p	y ³ D ^o	2	–	3d ⁴	³ D	2	0.015	91FOR
7693.254	12 994.825	2	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	–	3d ⁴	³ F1	3	0.007	91FOR
7707.781	12 970.333	3	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	–	3d ⁴	³ F1	4	0.007	91FOR
7725.496	12 940.592	9	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ³ (² D1)4s	³ D	3	0.007	91FOR
7738.954	12 918.088	5	3d ³ (⁴ F)4s	b ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.007	91FOR
7745.298	12 907.507	3	3d ³ (⁴ P)4s	c ³ P	0	–	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.007	91FOR
7749.910	12 899.826	3	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	1	0.007	91FOR
7753.205	12 894.344	2	3d ³ (⁴ P)4s	c ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	2	0.007	91FOR
7766.325	12 872.561	2	3d ³ (⁴ F)4p	x ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	e ⁵ P	3	0.007	91FOR
7767.439	12 870.715	14	3d ² 4s ²	a ¹ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.007	91FOR
7773.889	12 860.036	3	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	0	0.007	91FOR
7790.316	12 832.919	14	3d ³ (⁴ F)4p	y ³ D ^o	3	–	3d ⁴	³ D	3	0.007	91FOR
7790.628	12 832.404	3	3d ³ (⁴ F)4p	y ³ D ^o	3	–	3d ⁴	³ D	2	0.007	91FOR
7791.351	12 831.214	2	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.007	91FOR
7800.169	12 816.709	2	3d ³ (⁴ F)4p	x ⁵ D ^o	2	–	3d ² 4s(⁴ F)4d	e ⁵ P	2	0.007	91FOR
7807.430	12 804.789	2	3d ³ (² F)4s	¹ F	3	–	3d ³ (² D2)4p	w ¹ F ^o	3	0.007	91FOR
7811.308	12 798.432	5	3d ³ (⁴ F)4p	x ⁵ D ^o	4	–	3d ² 4s(⁴ F)4d	e ⁵ P	3	0.007	91FOR
7834.499	12 760.547	3	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.007	91FOR
7834.671	12 760.267	12	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	–	3d ³ (⁴ F)5s	f ³ F	4	0.007	91FOR
7837.171	12 756.197	2	3d ³ (⁴ F)4p	x ⁵ D ^o	1	–	3d ² 4s(⁴ F)4d	e ⁵ P	1	0.007	91FOR
7840.557	12 750.687	10	3d ² 4s ²	a ¹ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.007	91FOR
7842.157	12 748.086	9	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	–	3d ³ (⁴ F)5s	f ³ F	3	0.007	91FOR
7848.492	12 737.796	2	3d ³ (⁴ F)4p	x ⁵ D ^o	3	–	3d ² 4s(⁴ F)4d	e ⁵ P	2	0.007	91FOR
7852.675	12 731.011	31*	3d ³ (⁴ F)4s	a ⁵ F	5	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.007	91FOR
7852.675	12 731.011	31*	3d ³ (² G)4s	a ³ G	4	–	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.007	91FOR
7857.316	12 723.491	7	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	–	3d ³ (⁴ F)5s	f ³ F	2	0.007	91FOR
7869.272	12 704.160	2	3d ³ (⁴ F)4p	x ⁵ D ^o	2	–	3d ² 4s(⁴ F)4d	e ⁵ P	1	0.007	91FOR
7884.996	12 678.826	14	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.007	91FOR
7895.477	12 661.996	3	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.007	91FOR
7899.876	12 654.945	7	3d ³ (⁴ F)4p	y ⁵ G ^o	2	–	3d ³ (⁴ F)5s	f ⁵ F	2	0.007	91FOR
7902.987	12 649.963	9	3d ³ (⁴ F)4p	y ⁵ G ^o	3	–	3d ³ (⁴ F)5s	f ⁵ F	3	0.007	91FOR
7904.045	12 648.270	8	3d ³ (² D2)4s	b ¹ D	2	–	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	0.007	91FOR
7906.040	12 645.078	10	3d ³ (⁴ F)4p	y ⁵ G ^o	4	–	3d ³ (⁴ F)5s	f ⁵ F	4	0.008	91FOR
7922.022	12 619.568	11	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	–	3d ³ (² D1)4s	³ D	1	0.008	91FOR
7926.316	12 612.732	23	3d ³ (⁴ F)4p	y ⁵ G ^o	2	–	3d ³ (⁴ F)5s	f ⁵ F	1	0.008	91FOR
7933.039	12 602.043	4	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	–	3d ³ (² D1)4s	³ D	2	0.008	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J	Configuration	Term	J			
7938.521	12 593.341	6	3d ³ (² G)4s	a ³ G	4	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.008	91FOR
7943.865	12 584.869	31	3d ³ (⁴ F)4p	y ⁵ G ^o	3	–	3d ³ (⁴ F)5s	f ⁵ F	2	0.008	91FOR
7949.151	12 576.501	240	3d ² 4s ²	a ¹ G	4	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.008	91FOR
7961.533	12 556.942	41	3d ³ (⁴ F)4p	y ⁵ G ^o	4	–	3d ³ (⁴ F)5s	f ⁵ F	3	0.008	91FOR
7965.064	12 551.375	4	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	–	3d ³ (² D1)4s	³ D	1	0.008	91FOR
7976.194	12 533.861	16	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	–	3d ³ (² D1)4s	³ D	2	0.008	91FOR
7978.815	12 529.743	130	3d ³ (² G)4s	a ³ G	5	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.008	91FOR
7978.954	12 529.525	51	3d ³ (⁴ F)4p	y ⁵ G ^o	5	–	3d ³ (⁴ F)5s	f ⁵ F	4	0.008	91FOR
7992.346	12 508.531	4	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	–	3d ³ (² D1)4s	³ D	3	0.008	91FOR
7993.606	12 506.559	6	3d ³ (² G)4s	a ³ G	3	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.008	91FOR
7996.434	12 502.136	72	3d ³ (⁴ F)4p	y ⁵ G ^o	6	–	3d ³ (⁴ F)5s	f ⁵ F	5	0.008	91FOR
8003.481	12 491.128	12	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	–	3d ² 4s(⁴ F)4d	³ H	6	0.008	91FOR
8024.840	12 457.882	100	3d ³ (² G)4s	a ³ G	4	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.008	91FOR
8053.306	12 413.847	21 bl	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	–	3d ³ (² D1)4s	³ D	2	0.008	91FOR
8064.247	12 397.005	8	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	–	3d ² 4s(⁴ F)4d	³ H	5	0.008	91FOR
8066.018	12 394.283	6	3d ³ (² G)4s	a ³ G	5	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.008	91FOR
8068.240	12 390.870	74	3d ³ (² G)4s	a ³ G	3	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.008	91FOR
8069.781	12 388.504	27	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	–	3d ³ (² D1)4s	³ D	3	0.008	91FOR
8080.457	12 372.135	3	3d ³ (² D2)4s	a ³ D	3	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.008	91FOR
8084.520	12 365.917	7	3d ³ (⁴ P)4s	c ³ P	0	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.008	91FOR
8085.194	12 364.887	12	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.008	91FOR
8089.546	12 358.235	4	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.008	91FOR
8098.343	12 344.811	4	3d ³ (² D2)4s	a ³ D	2	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.008	91FOR
8100.070	12 342.178	6	3d ³ (² G)4s	a ³ G	4	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.008	91FOR
8127.827	12 300.029	4	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	–	3d ² 4s(⁴ F)4d	³ H	4	0.008	91FOR
8131.404	12 294.619	13	3d ³ (⁴ P)4s	c ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.008	91FOR
8133.316	12 291.729	3	3d ³ (² D2)4s	a ³ D	1	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.008	91FOR
8141.565	12 279.274	2	3d ³ (⁴ P)4s	c ³ P	2	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.008	91FOR
8180.343	12 221.067	4*	3d ³ (⁴ F)4p	y ³ D ^o	2	–	3d ² 4s(⁴ F)5s	e ³ F	3	0.008	91FOR
8180.343	12 221.067	4*	3d ³ (⁴ F)4p	y ³ D ^o	1	–	3d ² 4s(⁴ F)5s	e ³ F	2	0.008	91FOR
8207.211	12 181.059	4	3d ³ (⁴ F)4p	y ³ D ^o	3	–	3d ² 4s(⁴ F)5s	e ³ F	4	0.008	91FOR
8213.824	12 171.252	2	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	–	3d ³ (⁴ F)5s	f ³ F	4	0.008	91FOR
8217.204	12 166.245	2	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	–	3d ² 4s(⁴ F)5s	e ³ F	3	0.008	91FOR
8306.271	12 035.788	19	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	–	3d ³ (⁴ F)5s	f ³ F	4	0.008	91FOR
8307.416	12 034.130	28	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.008	91FOR
8311.699	12 027.929	13	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	–	3d ³ (⁴ F)5s	f ³ F	2	0.008	91FOR
8312.800	12 026.335	16	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	–	3d ³ (⁴ F)5s	f ³ F	3	0.008	91FOR
8334.389	11 995.183	58	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.008	91FOR
8348.887	11 974.354	8	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	–	3d ⁴	a ⁵ D	1	0.008	91FOR
8353.160	11 968.228	57	3d ³ (⁴ F)4s	a ⁵ F	1	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.008	91FOR
8362.002	11 955.573	9	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	–	3d ⁴	a ⁵ D	0	0.008	91FOR
8363.578	11 953.320	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	–	3d ⁴	a ⁵ D	2	0.008	91FOR
8364.237	11 952.378	400	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.008	91FOR
8377.204	11 933.878	4	3d ³ (² H)4s	a ³ H	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.008	91FOR
8377.859	11 932.944	620	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.008	91FOR
8382.529	11 926.296	610	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.008	91FOR
8382.779	11 925.941	450	3d ³ (⁴ F)4s	a ⁵ F	1	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	0.008	91FOR
8386.306	11 920.925	13	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	–	3d ⁴	a ⁵ D	3	0.008	91FOR
8389.493	11 916.396	17	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	–	3d ⁴	a ⁵ D	1	0.008	91FOR
8396.894	11 905.893	470	3d ³ (⁴ F)4s	a ⁵ F	1	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	0.008	91FOR
8402.535	11 897.901	4	3d ³ (² H)4s	a ³ H	5	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	0.008	91FOR
8412.356	11 884.011	960	3d ³ (⁴ F)4s	a ⁵ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	0.008	91FOR
8416.952	11 877.521	43	3d ³ (² H)4s	a ³ H	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.009	91FOR
8417.529	11 876.708	10	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	–	3d ⁴	a ⁵ D	4	0.009	91FOR
8418.693	11 875.065	3	3d ³ (² H)4s	a ³ H	4	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.009	91FOR
8423.090	11 868.866	7	3d ³ (² G)4s	a ³ G	4	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.009	91FOR
8424.41	11 867.01	50	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	–	3d ⁴	a ⁵ D	2	0.05	32MEG/KIE
8426.504	11 864.057	1500	3d ³ (⁴ F)4s	a ⁵ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.009	91FOR
8434.959	11 852.165	3100	3d ³ (⁴ F)4s	a ⁵ F	5	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.009	91FOR
8435.650	11 851.194	2100	3d ³ (⁴ F)4s	a ⁵ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.009	91FOR
8438.919	11 846.604	95	3d ³ (² H)4s	a ³ H	6	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	0.009	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
8442.970	11 840.919	9	3d ³ (² P)4s	b ³ P	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.009	91FOR
8450.890	11 829.822	78	3d ³ (² H)4s	a ³ H	5	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.009	91FOR
8457.100	11 821.136	30	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ F)4s4p(³ P ^o)	⁵ D ^o	4	0.009	91FOR
8467.147	11 807.110	47	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	—	3d ⁴	a ⁵ D	3	0.009	91FOR
8468.470	11 805.265	140	3d ³ (² G)4s	a ³ G	5	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.009	91FOR
8483.162	11 784.820	8	3d ³ (² G)4s	a ³ G	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.009	91FOR
8494.222	11 769.475	3	3d ³ (² P)4s	b ³ P	2	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.009	91FOR
8494.448	11 769.162	18	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.009	91FOR
8495.51	11 767.69	15	3d ³ (² F)4s	¹ F	3	—	3d4s ² 4p	w ¹ D ^o	2	0.05	32MEG/KIE
8496.014	11 766.993	27	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.009	91FOR
8518.028	11 736.582	65	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	—	3d ⁴	a ⁵ D	4	0.009	91FOR
8518.352	11 736.136	110	3d ³ (² G)4s	a ³ G	4	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.009	91FOR
8531.381	11 718.212	8	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.009	91FOR
8539.346	11 707.282	23	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.009	91FOR
8548.088	11 695.310	91	3d ³ (² G)4s	a ³ G	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.009	91FOR
8550.538	11 691.958	8	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.009	91FOR
8565.488	11 671.551	11	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.009	91FOR
8569.738	11 665.763	11	3d ³ (² P)4s	b ³ P	0	—	3d ² (³ P)4s4p(¹ P ^o)	w ³ D ^o	1	0.009	91FOR
8578.426	11 653.948	10	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.009	91FOR
8595.637	11 630.614	3	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	0	0.009	91FOR
8598.172	11 627.185	17	3d ³ (² G)4s	b ¹ G	4	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.009	91FOR
8600.977	11 623.393	6	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.009	91FOR
8612.910	11 607.289	3	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.009	91FOR
8618.087	11 600.316	5	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	—	3d ² 4s(² F)5s	³ F	3	0.009	91FOR
8618.427	11 599.859	8	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.009	91FOR
8622.504	11 594.37	2 q	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.019	91FOR
8623.429	11 593.131	3	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	0.009	91FOR
8641.483	11 568.910	6	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	—	3d ² 4s(² F)5s	³ F	4	0.009	91FOR
8675.371	11 523.719	550	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.009	91FOR
8682.980	11 513.621	310	3d ² 4s ²	a ³ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.009	91FOR
8684.233	11 511.960	7	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.009	91FOR
8692.329	11 501.238	150	3d ² 4s ²	a ³ P	0	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.009	91FOR
8719.579	11 465.295	16	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.009	91FOR
8722.585	11 461.344	3	3d ³ (² F)4s	¹ F	3	—	3d ³ (² G)4p	x ¹ G ^o	4	0.009	91FOR
8725.801	11 457.119	3	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.009	91FOR
8734.711	11 445.432	110	3d ² 4s ²	a ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	z ³ D ^o	1	0.009	91FOR
8737.316	11 442.020	3	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	—	3d ² 4s(² F)5s	³ F	4	0.009	91FOR
8750.191	11 425.184	2	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ² 4s(² F)4d	³ G	5	0.009	91FOR
8761.482	11 410.461	7	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.009	91FOR
8766.682	11 403.693	100	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.009	91FOR
8771.140	11 397.896	2	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	—	3d ² 4s(² F)5s	³ F	3	0.009	91FOR
8778.688	11 388.097	25	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.009	91FOR
8794.434	11 367.707	3	3d ³ (² G)4p	z ¹ H ^o	5	—	3d ² 4s(² F)4d	e ¹ G	4	0.009	91FOR
8819.419	11 335.503	9	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.009	91FOR
8821.153	11 333.275	8	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.009	91FOR
8863.109	11 279.626	3	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	—	3d ² 4s(² F)5s	³ F	2	0.009	91FOR
8984.89	11 126.74	2 q	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	—	3d ⁴	³ D	1	0.02	91FOR
8985.783	11 125.637	11	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.010	91FOR
8989.445	11 121.104	150	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.010	91FOR
8993.309	11 116.326	2	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.010	91FOR
9023.630	11 078.973	22	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.010	91FOR
9027.012	11 074.823	4	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ F)4p	x ⁵ D ^o	3	0.010	91FOR
9027.325	11 074.439	320	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.010	91FOR
9040.703	11 058.051	2	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	—	3d ⁴	³ D	2	0.010	91FOR
9085.657	11 003.338	2*	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.010	91FOR
9085.657	11 003.338	2*	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ F)4p	x ³ D ^o	0	0.010	91FOR
9086.947	11 001.777	36	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.010	91FOR
9087.678	11 000.891	18	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	0.010	91FOR
9090.694	10 997.242	520	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.010	91FOR
9091.249	10 996.570	6	3d ³ (² D2)4s	b ¹ D	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.010	91FOR
9091.270	10 996.545	4	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	—	3d ⁴	³ D	3	0.010	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
9123.201	10 958.058	72	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ⁴	b ³ G	3	0.010	91FOR
9135.845	10 942.891	9	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.010	91FOR
9145.104	10 931.812	4	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.010	91FOR
9167.541	10 905.058	91	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ⁴	b ³ G	4	0.010	91FOR
9170.444	10 901.606	11	3d ³ (⁴ F)4p	w ³ G ^o	5	—	3d ² 4s(⁴ F)4d	³ H	6	0.010	91FOR
9189.833	10 878.605	8	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ H	5	0.010	91FOR
9207.875	10 857.289	5	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.010	91FOR
9208.478	10 856.578	4	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.010	91FOR
9219.871	10 843.163	3	3d ³ (⁴ P)4s	c ³ P	0	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.010	91FOR
9221.755	10 840.948	4	3d ³ (⁴ F)4p	w ³ G ^o	3	—	3d ² 4s(⁴ F)4d	³ H	4	0.010	91FOR
9226.420	10 835.466	3	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	0.010	91FOR
9230.596	10 830.565	6	3d ² 4s ²	a ³ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.010	91FOR
9240.259	10 819.239	16	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.010	91FOR
9246.107	10 812.396	120	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ⁴	b ³ G	5	0.010	91FOR
9257.486	10 799.105	54	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.010	91FOR
9285.042	10 767.056	41	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.010	91FOR
9305.008	10 743.953	12	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ⁴	b ³ G	4	0.010	91FOR
9308.97	10 739.38	5 q	3d ³ (⁴ F)4p	w ³ G ^o	5	—	3d ² 4s(⁴ F)4d	³ H	5	0.02	91FOR
9312.385	10 735.442	32	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.010	91FOR
9321.22	10 725.26	3 q	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ H	4	0.02	91FOR
9325.244	10 720.638	3	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.010	91FOR
9360.565	10 680.186	4	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ G	5	0.011	91FOR
9390.693	10 645.920	5	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.011	91FOR
9400.907	10 634.354	4	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.011	91FOR
9406.595	10 627.924	6	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.011	91FOR
9409.655	10 624.467	16	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.011	91FOR
9429.92	10 601.64	1 q	3d ³ (⁴ F)4p	w ³ G ^o	3	—	3d ² 4s(⁴ F)4d	³ G	4	0.02	91FOR
9431.625	10 599.719	23	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.011	91FOR
9453.209	10 575.517	22	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.011	91FOR
9473.414	10 552.962	15	3d ³ (⁴ F)4p	y ⁵ F ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.011	91FOR
9476.607	10 549.406	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.011	91FOR
9478.500	10 547.299	4	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	—	3d ⁴	³ F ₂	4	0.011	91FOR
9484.200	10 540.960	13	3d ³ (⁴ F)4p	w ³ G ^o	5	—	3d ² 4s(⁴ F)4d	³ G	5	0.011	91FOR
9506.002	10 516.785	140	3d ³ (⁴ F)4p	y ⁵ F ^o	5	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.011	91FOR
9508.416	10 514.115	97	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.011	91FOR
9510.705	10 511.584	60	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.011	91FOR
9511.459	10 510.751	31	3d ³ (⁴ F)4p	y ⁵ F ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.011	91FOR
9511.746	10 510.434	39	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.011	91FOR
9526.672	10 493.966	4	3d ³ (⁴ F)4p	w ³ G ^o	3	—	3d ² 4s(⁴ F)4d	³ G	3	0.011	91FOR
9533.965	10 485.939	8	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ² 4s(⁴ F)4d	³ G	4	0.011	91FOR
9536.494	10 483.158	8	3d ³ (² D ₂)4s	a ³ D	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.011	91FOR
9546.077	10 472.635	2500	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	0.011	91FOR
9550.114	10 468.208	15	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.011	91FOR
9554.004	10 463.946	23	3d ³ (² D ₂)4s	a ³ D	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.011	91FOR
9569.966	10 446.492	24	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.011	91FOR
9574.68	10 441.35	3 q	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.02	91FOR
9588.791	10 425.984	24	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.011	91FOR
9590.072	10 424.591	16	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.011	91FOR
9599.592	10 414.253	3800	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	0.011	91FOR
9602.290	10 411.327	11	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.011	91FOR
9606.794	10 406.446	17	3d ³ (⁴ F)4p	y ⁵ F ^o	5	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.011	91FOR
9615.941	10 396.547	8	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.011	91FOR
9633.260	10 377.856	5	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.011	91FOR
9638.304	10 372.425	21 000	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	5	0.011	91FOR
9639.897	10 370.710	8	3d ³ (² D ₂)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.011	91FOR
9647.372	10 362.675	3900	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	0.011	91FOR
9651.704	10 358.024	30	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ⁴	a ⁵ D	4	0.011	91FOR
9652.371	10 357.308	41	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ⁴	a ⁵ D	3	0.011	91FOR
9661.416	10 347.612	180	3d ³ (² D ₂)4s	a ³ D	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	3	0.011	91FOR
9663.244	10 345.654	35	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ⁴	a ⁵ D	2	0.011	91FOR
9664.138	10 344.697	6	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.011	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
9675.547	10 332.499	15 000	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	0.011	91FOR
9679.024	10 328.788	21	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	—	3d ⁴	a ⁵ D	1	0.011	91FOR
9688.876	10 318.285	2700	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	0.011	91FOR
9690.660	10 316.385	32	3d ³ (² D2)4s	a ³ D	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.011	91FOR
9697.838	10 308.749	5	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ⁴	a ⁵ D	1	0.011	91FOR
9702.902	10 303.369	25	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ⁴	a ⁵ D	2	0.011	91FOR
9705.670	10 300.431	10 000	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	0.011	91FOR
9707.058	10 298.958	3	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.011	91FOR
9709.975	10 295.864	4	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	1	0.011	91FOR
9715.542	10 289.965	21	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	—	3d ⁴	a ⁵ D	0	0.011	91FOR
9717.003	10 288.417	70	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ⁴	a ⁵ D	3	0.011	91FOR
9718.958	10 286.348	2200	3d ² 4s ²	a ¹ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.011	91FOR
9722.88	10 282.19	3 q	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.02	91FOR
9728.414	10 276.350	6900	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	0.011	91FOR
9737.788	10 266.457	38	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	—	3d ⁴	a ⁵ D	1	0.011	91FOR
9743.605	10 260.328	5400	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	0.011	91FOR
9746.922	10 256.836	150	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ⁴	a ⁵ D	4	0.011	91FOR
9761.073	10 241.967	5	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.011	91FOR
9768.212	10 234.481	43	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	—	3d ⁴	a ⁵ D	2	0.011	91FOR
9770.304	10 232.290	2700	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	4	0.011	91FOR
9771.030	10 231.530	29	3d ³ (² G)4s	a ³ G	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.011	91FOR
9783.315	10 218.682	4000	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	0.011	91FOR
9783.589	10 218.396	2700	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	1	0.011	91FOR
9787.691	10 214.113	4000	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	0.011	91FOR
9801.192	10 200.044	8	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ P ^o	2	0.012	91FOR
9813.514	10 187.236	33	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	—	3d ⁴	a ⁵ D	3	0.012	91FOR
9816.823	10 183.802	4	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.012	91FOR
9832.143	10 167.935	510	3d ³ (² G)4s	a ³ G	5	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.012	91FOR
9879.568	10 119.126	28	3d ³ (² G)4s	a ³ G	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.012	91FOR
9922.676	10 075.164	3	3d ³ (² D2)4s	a ³ D	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.012	91FOR
9923.208	10 074.624	13	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.012	91FOR
9927.350	10 070.421	350	3d ³ (² G)4s	a ³ G	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.012	91FOR
9929.963	10 067.771	10	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	—	3d ² 4s(² F)4d	e ¹ G	4	0.012	91FOR
9930.632	10 067.092	17	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ⁴	³ F2	3	0.012	91FOR
9941.384	10 056.205	100	3d ³ (² D2)4s	a ³ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.012	91FOR
9949.004	10 048.502	110	3d ³ (² D2)4s	a ³ D	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.012	91FOR
9952.163	10 045.313	14	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.012	91FOR
9957.550	10 039.878	14	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.012	91FOR
9964.736	10 032.638	11	3d ² 4s ²	a ³ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.012	91FOR
9976.759	10 020.548	6	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	—	3d ⁴	³ F2	2	0.012	91FOR
9981.278	10 016.011	59	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	—	3d ⁴	³ F2	2	0.012	91FOR
9982.309	10 014.977	21	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ⁴	³ F2	4	0.012	91FOR
9997.962	9999.297	230	3d ³ (² G)4s	a ³ G	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.012	91FOR
10 002.497	9994.764	49	3d ³ (² G)4s	a ³ G	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.012	91FOR
10 003.089	9994.172	490	3d ³ (² D2)4s	a ³ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.012	91FOR
10 005.664	9991.600	27	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.012	91FOR
10 006.908	9990.358	4	3d ² 4s ²	a ³ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	0.012	91FOR
10 011.748	9985.528	350	3d ³ (² D2)4s	a ³ D	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.012	91FOR
10 034.496	9962.891	560	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.012	91FOR
10 038.634	9958.785	7	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.012	91FOR
10 048.828	9948.682	410	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.012	91FOR
10 050.244	9947.280	79	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ⁴	³ F2	3	0.012	91FOR
10 057.732	9939.875	810	3d ³ (² D2)4s	a ³ D	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.012	91FOR
10 059.901	9937.731	310	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.012	91FOR
10 066.516	9931.201	120	3d ³ (² D2)4s	a ³ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.012	91FOR
10 075.117	9922.723	9	3d ² 4s ²	a ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.012	91FOR
10 102.123	9896.197	8	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ⁴	³ F2	2	0.012	91FOR
10 119.175	9879.520	17	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ² 4s(² F)5s	³ F	3	0.012	91FOR
10 120.899	9877.838	130	3d ³ (² D2)4s	a ³ D	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.012	91FOR
10 125.209	9873.633	6	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	—	3d ³ (⁴ F)5s	f ³ F	4	0.012	91FOR
10 126.534	9872.341	6	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	—	3d ³ (⁴ F)5s	f ³ F	3	0.012	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
10 133.400	9865.652	5	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	—	3d ³ (⁴ F)5s	f ³ F	2	0.012	91FOR
10 145.516	9853.870	96	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ⁴	³ F2	4	0.012	91FOR
10 146.905	9852.521	25	3d ³ (⁴ F)4p	w ³ G ^o	5	—	3d ² 4s(² F)5s	³ F	4	0.012	91FOR
10 170.490	9829.674	37	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.012	91FOR
10 179.924	9820.564	14	3d ³ (⁴ F)4p	w ³ G ^o	3	—	3d ² 4s(² F)5s	³ F	2	0.012	91FOR
10 189.140	9811.682	39	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.012	91FOR
10 195.453	9805.606	8	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ⁴	³ F2	2	0.012	91FOR
10 201.570	9799.727	6	3d ³ (⁴ F)4p	x ⁵ D ^o	3	—	3d ³ (⁴ F)5s	f ³ F	4	0.012	91FOR
10 204.723	9796.699	3	3d ³ (² D1)4s	³ D	3	—	3d4s ² 4p	q ³ D ^o	3	0.012	91FOR
10 215.707	9786.165	8	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ⁴	³ F2	3	0.013	91FOR
10 241.296	9761.714	4	3d ³ (² P)4s	b ³ P	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.013	91FOR
10 257.014	9746.755	18	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	—	3d ² (⁴ F)5s	f ³ F	4	0.013	91FOR
10 268.774	9735.593	7	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ⁴	³ F2	3	0.013	91FOR
10 270.714	9733.754	3	3d ³ (⁴ F)4p	x ⁵ D ^o	2	—	3d ³ (⁴ F)5s	f ³ F	3	0.013	91FOR
10 322.934	9684.514	5	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ⁴	³ F2	2	0.013	91FOR
10 338.502	9669.931	11	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	—	3d ³ (⁴ F)5s	f ³ F	3	0.013	91FOR
10 390.740	9621.317	5	3d ² 4s ²	a ¹ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.013	91FOR
10 396.811	9615.699	3500	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	6	0.013	91FOR
10 398.791	9613.868	11	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	—	3d ⁴	³ P2	2	0.013	91FOR
10 400.618	9612.179	6	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	—	3d ³ (⁴ F)5s	f ³ F	2	0.013	91FOR
10 404.196	9608.874	7	3d ³ (² H)4s	a ³ H	5	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.013	91FOR
10 415.443	9598.498	12	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ⁴	³ F2	4	0.013	91FOR
10 438.331	9577.451	4	3d ³ (² H)4s	a ³ H	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.013	91FOR
10 460.055	9557.560	100	3d ³ (² H)4s	a ³ H	6	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.013	91FOR
10 481.414	9538.084	7	3d ³ (² G)4s	a ³ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.013	91FOR
10 489.430	9530.795	5	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ⁴	³ F2	3	0.013	91FOR
10 496.122	9524.718	3000	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	0.013	91FOR
10 551.758	9474.498	61	3d ³ (² G)4s	a ³ G	5	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.013	91FOR
10 552.964	9473.415	67	3d ³ (² H)4s	a ³ H	5	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.013	91FOR
10 565.970	9461.754	31	3d ³ (² H)4s	a ³ H	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.013	91FOR
10 580.026	9449.184	4	3d ³ (⁴ F)4p	y ⁵ G ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.013	91FOR
10 583.952	9445.679	3	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.013	91FOR
10 584.641	9445.064	2200	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	0.013	91FOR
10 589.584	9440.655	7	3d ³ (⁴ F)4p	y ⁵ G ^o	6	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.013	91FOR
10 591.297	9439.128	5	3d ³ (⁴ F)4p	y ⁵ G ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.013	91FOR
10 594.862	9435.952	5	3d ³ (⁴ F)4p	y ⁵ G ^o	5	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.013	91FOR
10 607.724	9424.511	180	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	5	0.014	91FOR
10 627.784	9406.722	11	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	—	3d ⁴	³ P2	1	0.014	91FOR
10 646.462	9390.219	16	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.014	91FOR
10 658.559	9379.562	3	3d ³ (² D2)4s	a ³ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	0.014	91FOR
10 661.628	9376.862	1700	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.014	91FOR
10 677.053	9363.315	320	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	0.014	91FOR
10 689.126	9352.740	7	3d ³ (² D2)4s	a ³ D	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.014	91FOR
10 689.392	9352.507	110	3d ³ (⁴ F)4p	x ⁵ D ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	5	0.014	91FOR
10 726.392	9320.246	1200	3d ³ (⁴ F)4s	a ⁵ F	1	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.014	91FOR
10 730.934	9316.301	58	3d ³ (⁴ F)4p	x ⁵ D ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.014	91FOR
10 732.868	9314.622	350	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.014	91FOR
10 739.817	9308.596	3	3d ³ (⁴ F)4p	w ³ F ^o	4	—	3d ⁴	³ F1	4	0.014	91FOR
10 741.571	9307.076	48	3d ³ (⁴ F)4p	x ⁵ D ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.014	91FOR
10 747.352	9302.069	5	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.014	91FOR
10 751.808	9298.214	5	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	—	3d ⁴	³ P2	0	0.014	91FOR
10 756.655	9294.024	30	3d ³ (⁴ F)4p	x ⁵ D ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.014	91FOR
10 757.069	9293.667	12	3d ³ (² P)4s	b ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.014	91FOR
10 774.870	9278.313	280	3d ³ (⁴ F)4s	a ⁵ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.014	91FOR
10 775.297	9277.945	16	3d ³ (⁴ F)4p	x ⁵ D ^o	0	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.014	91FOR
10 781.348	9272.738	25	3d ³ (² P)4s	b ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.014	91FOR
10 792.555	9263.109	5	3d ³ (⁴ F)4s	a ⁵ F	5	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	0.014	91FOR
10 793.794	9262.046	29	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ⁴	b ³ G	3	0.014	91FOR
10 805.745	9251.802	16	3d ³ (⁴ F)4p	x ⁵ D ^o	1	—	3d ³ (⁴ F)5s	f ⁵ F	1	0.014	91FOR
10 817.015	9242.163	17	3d ³ (⁴ F)4p	x ⁵ D ^o	4	—	3d ³ (⁴ F)5s	f ⁵ F	4	0.014	91FOR
10 817.217	9241.990	20	3d ³ (⁴ F)4p	x ⁵ D ^o	2	—	3d ³ (⁴ F)5s	f ⁵ F	2	0.014	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
10820.309	9239.349	40	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ⁴	b ³ G	4	0.014	91FOR
10827.899	9232.873	11	3d ³ (⁴ F)4s	a ⁵ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.014	91FOR
10833.424	9228.164	16	3d ³ (⁴ F)4p	x ⁵ D ^o	3	—	3d ³ (⁴ F)5s	f ⁵ F	3	0.014	91FOR
10846.346	9217.170	3	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ⁴	³ P2	2	0.014	91FOR
10847.637	9216.073	14	3d ³ (⁴ F)4s	a ⁵ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.014	91FOR
10853.111	9211.425	13	3d ³ (² G)4s	b ¹ G	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.014	91FOR
10855.019	9209.806	6	3d ³ (² P)4s	b ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.014	91FOR
10896.116	9175.069	59	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ⁴	b ³ G	5	0.014	91FOR
10899.138	9172.525	6	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ⁴	b ³ G	3	0.014	91FOR
10905.015	9167.582	4	3d ³ (² F)4s	³ F	4	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	0.014	91FOR
10974.32	9109.68	7 q	3d ³ (² D1)4s	³ D	3	—	3d4s ² 4p	s ³ F ^o	4	0.03	91FOR
10978.012	9106.623	7	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ⁴	b ³ G	4	0.014	91FOR
10990.735	9096.081	23	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ⁴	³ P2	2	0.014	91FOR
11008.710	9081.229	5	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.015	91FOR
11057.383	9041.255	15	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	—	3d ⁴	³ P2	2	0.015	91FOR
11095.722	9010.015	59	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ⁴	³ P2	1	0.015	91FOR
11096.043	9009.754	3	3d ³ (² F)4s	³ F	3	—	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	0.015	91FOR
11114.843	8994.515	7	3d ³ (² G)4p	x ¹ G ^o	4	—	3d ³ (² G)5s	¹ G	4	0.015	91FOR
11119.918	8990.410	2	3d4s ² 4p	x ¹ F ^o	3	—	3d ² 4s(² D)5s	¹ D	2	0.015	91FOR
11137.241	8976.426	9	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	—	3d ⁴	³ F1	2	0.015	91FOR
11210.536	8917.738	4	3d ³ (² D1)4s	³ D	2	—	3d4s ² 4p	s ³ F ^o	3	0.015	91FOR
11225.309	8906.002	4	3d ⁴	³ H	6	—	3d ² 4s(⁴ F)5p	³ G ^o	5	0.015	91FOR
11230.965	8901.517	77	3d ³ (⁴ F)4p	y ³ D ^o	1	—	3d ⁴	³ P2	0	0.015	91FOR
11243.896	8891.280	190	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ⁴	³ P2	2	0.015	91FOR
11246.875	8888.925	120	3d ³ (⁴ F)4p	y ³ D ^o	2	—	3d ⁴	³ P2	1	0.015	91FOR
11248.917	8887.311	8	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ⁴	³ F1	3	0.015	91FOR
11287.586	8856.865	3	3d ⁴	³ H	5	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.015	91FOR
11292.42	8853.07	6	3d ³ (⁴ F)4p	y ³ D ^o	3	—	3d ² 4d	¹ D	2	0.04	38KIE
11316.670	8834.103	34	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	—	3d ⁴	³ P2	1	0.015	91FOR
11342.674	8813.850	7	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ F ^o	3	—	3d ³ (² D1)4s	¹ D	2	0.015	91FOR
11347.582	8810.038	4	3d ⁴	³ H	4	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.015	91FOR
11354.707	8804.510	14	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ⁴	³ F1	4	0.015	91FOR
11385.961	8780.342	3	3d ³ (² D1)4s	³ D	1	—	3d4s ² 4p	s ³ F ^o	2	0.016	91FOR
11411.196	8760.925	4	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ⁴	³ F1	3	0.016	91FOR
11489.409	8701.286	6	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ² 4s(⁴ F)4d	³ D	3	0.016	91FOR
11502.252	8691.570	6	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ² 4s(⁴ F)4d	³ D	2	0.016	91FOR
11525.931	8673.714	5	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	—	3d ² 4s(⁴ F)4d	³ D	1	0.016	91FOR
11539.547	8663.480	82	3d ³ (² F)4s	³ F	4	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.016	91FOR
11567.115	8642.832	6	3d ³ (² F)4s	³ F	4	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.016	91FOR
11581.567	8632.047	6	3d ³ (² F)4s	³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	4	0.016	91FOR
11609.336	8611.400	59	3d ³ (² F)4s	³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.016	91FOR
11632.422	8594.309	12	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.016	91FOR
11635.210	8592.250	27	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.016	91FOR
11641.939	8587.284	6	3d ³ (² F)4s	³ F	2	—	3d ³ (⁴ F)4p	w ³ F ^o	3	0.016	91FOR
11642.284	8587.029	6	3d ³ (² F)4s	³ F	3	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.016	91FOR
11651.925	8579.924	10	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	—	3d ³ (⁴ F)5s	f ³ F	4	0.016	91FOR
11667.226	8568.672	45	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.016	91FOR
11670.198	8566.490	13	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	—	3d ⁴	b ³ G	3	0.016	91FOR
11675.072	8562.914	45	3d ³ (² F)4s	³ F	2	—	3d ³ (⁴ F)4p	w ³ F ^o	2	0.016	91FOR
11710.572	8536.956	13	3d ³ (⁴ P)4s	c ³ P	0	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.016	91FOR
11721.119	8529.274	13	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	0.016	91FOR
11737.181	8517.602	18	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ⁴	b ³ G	4	0.017	91FOR
11752.310	8506.637	15	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.017	91FOR
11758.756	8501.974	8	3d ³ (² F)4s	¹ F	3	—	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	0.017	91FOR
11780.546	8486.248	250	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.017	91FOR
11797.181	8474.282	210	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.017	91FOR
11829.989	8450.780	3	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ⁴	b ³ G	3	0.017	91FOR
11830.251	8450.593	24	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ⁴	b ³ G	5	0.017	91FOR
11830.601	8450.343	6	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	—	3d ³ (⁴ F)5s	f ³ F	3	0.017	91FOR
11892.872	8406.097	820	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.017	91FOR
11926.852	8382.148	3	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ⁴	b ³ G	4	0.017	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
11 942.626	8371.077	19	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ⁴	³ F2	3	0.017	91FOR
11 949.543	8366.231	1000	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.017	91FOR
11 973.857	8349.243	1500*	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ⁴	³ F2	4	0.017	91FOR
11 973.857	8349.243	1500*	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.017	91FOR
11 982.960	8342.900	5	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	—	3d ³ (⁴ F)5s	f ³ F	2	0.017	91FOR
12 015.938	8320.003	62	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ⁴	³ F2	2	0.017	91FOR
12 050.046	8296.453	6	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ³ (⁴ F)5s	f ³ F	4	0.017	91FOR
12 071.703	8281.569	78	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ⁴	³ F2	3	0.017	91FOR
12 092.673	8267.208	11	3d ³ (⁴ F)4p	w ³ G ^o	3	—	3d ³ (⁴ F)5s	f ³ F	3	0.018	91FOR
12 128.412	8242.847	7	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	0	0.018	91FOR
12 146.606	8230.500	8	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	—	3d ⁴	³ F2	2	0.018	91FOR
12 167.241	8216.542	120	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ⁴	³ F2	4	0.018	91FOR
12 183.785	8205.385	10	3d ³ (² D2)4s	a ³ D	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	0.018	91FOR
12 239.926	8167.749	54	3d ³ (² D2)4s	a ³ D	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.018	91FOR
12 255.702	8157.235	120	3d ³ (⁴ F)4p	w ³ G ^o	5	—	3d ³ (⁴ F)5s	f ³ F	4	0.018	91FOR
12 261.915	8153.102	76	3d ³ (⁴ F)4p	w ³ G ^o	3	—	3d ³ (⁴ F)5s	f ³ F	2	0.018	91FOR
12 264.262	8151.542	100	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ³ (⁴ F)5s	f ³ F	3	0.018	91FOR
12 268.337	8148.834	9	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	—	3d ⁴	³ F2	3	0.018	91FOR
12 305.527	8124.207	6	3d ³ (² D2)4s	a ³ D	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.018	91FOR
12 321.881	8113.424	33	3d ³ (² D2)4s	a ³ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.018	91FOR
12 336.976	8103.497	5	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.018	91FOR
12 388.373	8069.877	48	3d ³ (² D2)4s	a ³ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.018	91FOR
12 473.108	8015.055	21	3d ³ (² D2)4s	a ³ D	2	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.019	91FOR
12 484.594	8007.681	4	3d ² 4s ²	a ¹ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.019	91FOR
12 552.034	7964.657	11	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ² 4s(⁴ F)4d	³ G	5	0.019	91FOR
12 569.576	7953.542	72	3d ³ (² D2)4s	a ³ D	3	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.019	91FOR
12 571.337	7952.428	4	3d ³ (² D1)4s	³ D	3	—	3d4s ² 4p	v ³ P ^o	2	0.019	91FOR
12 600.270	7934.167	270	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.019	91FOR
12 638.887	7909.925	4	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ² 4s(⁴ F)4d	g ³ F	3	0.019	91FOR
12 651.452	7902.069	5	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ² 4s(⁴ F)4d	g ³ F	4	0.019	91FOR
12 656.829	7898.712	14	3d ³ (² D2)4s	a ³ D	3	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.019	91FOR
12 659.880	7896.809	7	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ² 4s(⁴ F)4d	³ G	4	0.019	91FOR
12 668.857	7891.213	6	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.019	91FOR
12 671.102	7889.815	260	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.019	91FOR
12 675.433	7887.119	5	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	—	3d ² 4s(⁴ F)4d	³ G	3	0.019	91FOR
12 688.638	7878.911	3	3d ⁴	³ P2	1	—	3d4s ² 4p	q ³ D ^o	2	0.019	91FOR
12 729.417	7853.671	4	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.019	91FOR
12 738.390	7848.139	440	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.019	91FOR
12 740.938	7846.569	160	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	—	3d ⁴	³ H	4	0.019	91FOR
12 744.149	7844.592	2	3d ³ (² D1)4s	³ D	2	—	3d4s ² 4p	v ³ P ^o	1	0.019	91FOR
12 744.913	7844.122	250	3d ³ (² P)4s	a ¹ P	1	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.019	91FOR
12 811.481	7803.364	290	3d ³ (² D2)4s	a ³ D	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.020	91FOR
12 821.672	7797.162	3600	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.020	91FOR
12 831.432	7791.231	2000	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.020	91FOR
12 840.766	7785.568	200*	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.020	91FOR
12 840.766	7785.568	200*	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ⁴	³ H	5	0.020	91FOR
12 847.034	7781.769	2500	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.020	91FOR
12 856.091	7776.287	2	3d ⁴	³ P2	2	—	3d4s ² 4p	q ³ D ^o	3	0.020	91FOR
12 869.200	7768.366	11	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	—	3d ⁴	³ F2	2	0.020	91FOR
12 879.539	7762.130	15	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	—	3d ⁴	³ F2	4	0.020	91FOR
12 888.930	7756.474	13	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	—	3d ⁴	³ F2	3	0.020	91FOR
12 919.90	7737.879	190	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.02	91FOR
12 927.48	7733.345	57	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.02	91FOR
12 950.90	7719.362	240	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ⁴	³ H	6	0.02	91FOR
12 974.41	7705.37	4 q	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	—	3d ⁴	³ F2	2	0.04	91FOR
12 987.57	7697.563	130	3d ³ (² D2)4s	b ¹ D	2	—	3d ² (¹ D)4s4p(¹ P ^o)	y ¹ D ^o	2	0.02	91FOR
12 992.83	7694.446	8	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	—	3d ⁴	³ F2	3	0.02	91FOR
13 002.19	7688.910	58	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.02	91FOR
13 005.36	7687.032	40	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.02	91FOR
13 011.26	7683.551	47	3d ³ (² D2)4s	a ³ D	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.02	91FOR
13 011.90	7683.173	340	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.02	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
13 064.35	7652.323	3	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	0.02	91FOR
13 077.27	7644.764	400	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.02	91FOR
13 085.05	7640.220	6	3d ³ (² P)4s	b ³ P	0	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.02	91FOR
13 087.79	7638.62	3 q	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	0.04	91FOR
13 112.13	7624.440	16	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	—	3d ⁴	³ F2	2	0.02	91FOR
13 112.67	7624.127	47	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.02	91FOR
13 178.39	7586.105	2	3d ⁴	a ⁵ D	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	3	0.02	91FOR
13 190.59	7579.090	2	3d ³ (⁴ P)4p	w ⁵ D ^o	3	—	3d ² 4s(⁴ F)4d	g ⁵ F	4	0.02	91FOR
13 198.83	7574.356	4	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.02	91FOR
13 201.88	7572.608	2	3d ³ (⁴ P)4p	w ⁵ D ^o	4	—	3d ² 4s(⁴ F)4d	g ⁵ F	5	0.02	91FOR
13 218.69	7562.979	5	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.02	91FOR
13 219.21	7562.678	18	3d ³ (² D2)4s	a ³ D	3	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.02	91FOR
13 224.22	7559.817	19	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	—	3d ⁴	³ F2	3	0.02	91FOR
13 238.66	7551.569	6	3d ³ (² D2)4s	a ³ D	1	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.02	91FOR
13 239.67	7550.995	69	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	0	0.02	91FOR
13 242.91	7549.147	6	3d ⁴	a ⁵ D	1	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.02	91FOR
13 255.83	7541.787	140	3d ³ (² P)4s	b ³ P	0	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.02	91FOR
13 267.33	7535.253	5	3d ³ (² D2)4p	x ¹ P ^o	1	—	3d ² 4s(² D)5s	¹ D	2	0.02	91FOR
13 284.17	7525.700	8	3d ⁴	a ⁵ D	0	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.02	91FOR
13 305.71	7513.518	120	3d ³ (² P)4s	b ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	0.02	91FOR
13 307.95	7512.250	21	3d ⁴	a ⁵ D	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.02	91FOR
13 317.46	7506.89	31 q	3d ⁴	a ⁵ D	1	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.04	91FOR
13 318.74	7506.163	7	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.02	91FOR
13 332.50	7498.417	31	3d ³ (² P)4s	b ³ P	2	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.02	91FOR
13 334.53	7497.274	5	3d ³ (² D2)4s	a ³ D	2	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.02	91FOR
13 343.78	7492.077	26	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	—	3d ⁴	³ F2	4	0.02	91FOR
13 346.70	7490.440	8	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	0.02	91FOR
13 372.68	7475.890	94	3d ³ (² P)4s	b ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.02	91FOR
13 383.22	7470.003	15	3d ⁴	a ⁵ D	2	—	3d ³ (⁴ P)4p	y ⁵ P ^o	1	0.02	91FOR
13 396.11	7462.811	9	3d ² 4s(⁴ F)5s	e ³ F	2	—	3d ³ (⁴ F)5p	³ G ^o	3	0.02	91FOR
13 396.56	7462.563	62	3d ⁴	a ⁵ D	4	—	3d ³ (⁴ P)4p	y ⁵ P ^o	3	0.02	91FOR
13 404.19	7458.313	33	3d ⁴	a ⁵ D	3	—	3d ³ (⁴ P)4p	y ⁵ P ^o	2	0.02	91FOR
13 405.29	7457.700	8	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.02	91FOR
13 409.10	7455.581	26	3d ² 4s ²	a ¹ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.02	91FOR
13 409.60	7455.305	36	3d ³ (⁴ F)4p	y ⁵ F ^o	5	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.02	91FOR
13 451.03	7432.342	36	3d ³ (² P)4s	b ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.02	91FOR
13 472.40	7420.554	29	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.02	91FOR
13 478.33	7417.290	4	3d ³ (⁴ F)4p	y ⁵ F ^o	1	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.02	91FOR
13 505.08	7402.598	5	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ² 4s(² F)5s	³ F	4	0.02	91FOR
13 521.21	7393.767	16	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.02	91FOR
13 524.45	7391.992	250	3d ³ (² P)4s	b ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.02	91FOR
13 531.13	7388.346	3	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	—	3d ² 4s(² F)5s	³ F	3	0.02	91FOR
13 533.87	7386.849	13	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ³ (⁴ F)5p	³ G ^o	5	0.02	91FOR
13 550.99	7377.517	100	3d ³ (² P)4s	b ³ P	1	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.02	91FOR
13 556.068	7374.754	181 m	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.006	05LIT
13 578.10	7362.787	10	3d ³ (⁴ F)4p	y ⁵ F ^o	1	—	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.02	91FOR
13 604.603	7348.444	4070 m*	3d ³ (² P)4s	b ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.006	05LIT
13 604.603	7348.444	4070 m*	3d ² 4s(⁴ F)4d	e ⁵ H	5	—	3d ³ (⁴ F _{9/2})4f	[4.5] ^o	5	0.006	05LIT
13 646.33	7325.973	2	3d ³ (² G)4p	t ³ F ^o	2	—	3d ² 4s(² F)4d	³ F	2	0.02	91FOR
13 653.12	7322.333	32	3d ³ (² P)4s	b ³ P	0	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.02	91FOR
13 656.96	7320.272	6	3d ³ (⁴ F)4p	y ⁵ F ^o	2	—	3d ² 4s(⁴ F)5s	e ⁵ F	1	0.02	91FOR
13 670.80	7312.863	4	3d ³ (⁴ F)4p	y ⁵ F ^o	5	—	3d ² 4s(⁴ F)5s	e ⁵ F	4	0.02	91FOR
13 671.14	7312.679	3	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	—	3d ³ (² D1)4s	³ D	2	0.02	91FOR
13 674.64	7310.807	6	3d ³ (⁴ F)4p	y ⁵ F ^o	3	—	3d ² 4s(⁴ F)5s	e ⁵ F	2	0.02	91FOR
13 679.61	7308.154	7	3d ³ (⁴ F)4p	y ⁵ F ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	3	0.02	91FOR
13 702.81	7295.779	3	3d ² 4s(⁴ F)5s	e ³ F	2	—	3d ³ (⁴ F)5p	³ F ^o	2	0.02	91FOR
13 706.86	7293.621	23	3d ³ (² P)4s	b ³ P	2	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.02	91FOR
13 707.25	7293.41	3 q	3d ³ (² G)4p	t ³ F ^o	3	—	3d ² 4s(² F)4d	³ F	3	0.05	91FOR
13 712.93	7290.395	18	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ² 4s(² F)5s	³ F	3	0.02	91FOR
13 739.65	7276.218	30	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ² 4s(² F)5s	³ F	4	0.02	91FOR
13 750.20	7270.634	4	3d ³ (² D2)4s	b ¹ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	0.02	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
13 777.13	7256.423	7	3d ³ (² P)4s	b ³ P	1	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.02	91FOR
13 853.93	7216.193	5	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ³ (⁴ F)5p	³ F ^o	4	0.02	91FOR
13 858.70	7213.714	13	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	—	3d ² 4s(² F)5s	³ F	2	0.02	91FOR
13 868.566	7208.580	44 m*	3d ³ (² D)4s	b ¹ D	2	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	0.006	05LIT
13 868.566	7208.580	44 m*	3d ² 4s(⁴ F)4d	e ⁵ H	4	—	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	3	0.006	05LIT
13 883.41	7200.871	6	3d ³ (² D1)4s	³ D	3	—	3d ³ (² D)4p	s ³ D ^o	3	0.02	91FOR
13 934.13	7174.660	4	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ³ (⁴ F)5p	³ F ^o	2	0.02	91FOR
13 973.00	7154.704	27	3d ³ (² D)4s	a ³ D	3	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.02	91FOR
13 983.811	7149.172	11*	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	4	0.006	05LIT
13 983.811	7149.172	11*	3d ³ (² H)4p	z ³ P ^o	5	—	3d ² 4s(² F)4d	f ³ H	4	0.006	05LIT
13 989.93	7146.044	5	3d ³ (² D1)4s	³ D	2	—	3d ³ (² D)4p	s ³ D ^o	2	0.02	91FOR
14 007.193	7137.238	11 m	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	3	0.006	05LIT
14 028.80	7126.243	3	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	—	3d ³ (² D1)4s	³ D	3	0.02	91FOR
14 049.47	7115.763	4	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ² 4s(² F)5s	³ F	2	0.02	91FOR
14 067.308	7106.738	8*	3d ³ (⁴ F)5p	⁵ G ^o	4	—	3d ² 4s(⁴ F _{9/2})5g	[5.5]	5	0.020	05LIT
14 067.308	7106.738	8*	3d ² 4s(⁴ F)4d	e ⁵ H	6	—	3d ³ (⁴ F _{5/2})4f	[6.5] ^o	6	0.020	05LIT
14 071.41	7104.667	4	3d ³ (² D1)4s	³ D	1	—	3d ³ (² D)4p	s ³ D ^o	1	0.02	91FOR
14 079.08	7100.80	6 q	3d ³ (² G)4s	b ¹ G	4	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.05	91FOR
14 116.57	7081.936	6	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	3	0.02	91FOR
14 139.368	7070.519	7	3d ⁴	³ F ₂	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	1	0.020	05LIT
14 169.82	7055.324	6	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.02	91FOR
14 170.59	7054.94	5 q	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	—	3d ⁴	³ P ₂	2	0.05	91FOR
14 188.53	7046.021	5	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	2	0.02	91FOR
14 197.66	7041.490	18	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.02	91FOR
14 239.43	7020.836	4	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	—	3d ³ (² D1)4s	³ D	3	0.02	91FOR
14 263.90	7008.787	6	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	—	3d ² 4s(⁴ F)5s	e ¹ F	3	0.02	91FOR
14 365.04	6959.444	4	3d ³ (² G)4p	t ³ F ^o	4	—	3d ² 4s(² F)4d	³ G	5	0.02	91FOR
14 368.86	6957.593	51	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.02	91FOR
14 375.33	6954.46	2 q	3d ³ (² G)4p	t ³ F ^o	3	—	3d ² 4s(² F)4d	³ G	4	0.05	91FOR
14 376.008	6954.133	219 m	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	3	0.006	05LIT
14 379.93	6952.237	4	3d ³ (² G)4p	t ³ F ^o	2	—	3d ² 4s(² F)4d	³ G	3	0.02	91FOR
14 382.43	6951.027	5	3d ³ (⁴ F)4s	b ³ F	2	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	0.02	91FOR
14 435.19	6925.623	43	3d ³ (² P)4s	b ³ P	0	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.03	91FOR
14 450.42	6918.322	75	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.03	91FOR
14 459.15	6914.145	5	3d ³ (² H)4p	y ¹ H ^o	5	—	3d ³ (² G)5s	¹ G	4	0.03	91FOR
14 468.25	6909.795	7	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	—	3d ⁴	³ P ₂	1	0.03	91FOR
14 519.83	6885.250	17	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.03	91FOR
14 525.84	6882.40	3 q	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ² 4s(² F)5s	e ¹ F	3	0.05	91FOR
14 564.18	6864.283	3	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	—	3d ⁴	³ P ₂	0	0.03	91FOR
14 573.86	6859.725	57	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.03	91FOR
14 649.14	6824.472	4	3d ⁴	a ⁵ D	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.03	91FOR
14 664.93	6817.128	36	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.03	91FOR
14 690.15	6805.422	10	3d ⁴	a ⁵ D	4	—	3d ³ (⁴ P)4p	w ⁵ D ^o	4	0.03	91FOR
14 730.85	6786.618	6	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	0	0.03	91FOR
14 733.12	6785.576	3	3d ⁴	a ⁵ D	1	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.03	91FOR
14 765.87	6770.526	6	3d ⁴	a ⁵ D	3	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.03	91FOR
14 812.66	6749.139	9	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	0.03	91FOR
14 813.68	6748.672	3	3d ⁴	a ⁵ D	2	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.03	91FOR
14 839.51	6736.924	4	3d ³ (² F)4s	³ F	3	—	3d ² (³ P)4s4p(³ P ^o)	y ³ P ^o	2	0.03	91FOR
14 849.69	6732.308	390	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ F)4p	y ³ D ^o	3	0.03	91FOR
14 866.98	6724.48	4 q	3d ² (³ P)4s4p(³ P ^o)	y ¹ P ^o	1	—	3d ³ (² D1)4s	¹ D	2	0.06	91FOR
14 919.22	6700.930	3	3d ⁴	a ⁵ D	4	—	3d ³ (⁴ P)4p	w ⁵ D ^o	3	0.03	91FOR
14 933.04	6694.732	3	3d ⁴	a ⁵ D	3	—	3d ³ (⁴ P)4p	w ⁵ D ^o	2	0.03	91FOR
14 993.02	6667.948	38	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.03	91FOR
15 016.15	6657.677	300	3d ³ (² H)4s	a ³ H	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.03	91FOR
15 064.16	6636.460	9	3d ² (³ P)4s4p(³ P ^o)	x ¹ D ^o	2	—	3d ³ (² D1)4s	¹ D	2	0.03	91FOR
15 088.18	6625.894	100	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	1	0.03	91FOR
15 104.48	6618.742	6	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	—	3d ² 4s(⁴ F)5s	e ³ F	4	0.03	91FOR
15 109.08	6616.730	28	3d ² 4s(⁴ F)5s	e ³ F	2	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.03	91FOR
15 117.32	6613.123	190	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.03	91FOR
15 154.03	6597.101	35	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.03	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
15 186.70	6582.910	230	3d ³ (² G)4s	a ³ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.03	91FOR
15 188.01	6582.341	140	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	2	0.03	91FOR
15 208.16	6573.621	4	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.03	91FOR
15 260.812	6550.941	20	3d ² 4s(⁴ F)4d	e ⁵ D	0	—	3d ² 4s(⁴ F _{9/2})4f	[1.5] ^o	1	0.007	05LIT
15 261.28	6550.741	47	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ² 4s(⁴ F)5p	³ G ^o	5	0.03	91FOR
15 272.95	6545.733	4	3d ² 4s(⁴ F)5p	⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	⁵ F	5	0.03	91FOR
15 284.24	6540.898	4	3d ² 4s(⁴ F)5s	e ³ F	2	—	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.03	91FOR
15 315.58	6527.515	23	3d ³ (⁴ P)4s	c ³ P	2	—	3d ³ (⁴ F)4p	y ³ D ^o	2	0.03	91FOR
15 334.84	6519.315	5400	3d ³ (² G)4s	a ³ G	5	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.03	91FOR
15 381.11	6499.707	140*	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.03	91FOR
15 381.11	6499.707	140*	3d ³ (⁴ P)4s	c ³ P	0	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.03	91FOR
15 390.83	6495.600	4	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ² 4s(⁴ F)5p	³ G ^o	3	0.03	91FOR
15 393.872	6494.317	27	3d ² 4s(⁴ F)4d	e ⁵ G	5	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.007	05LIT
15 399.30	6492.028	73	3d ³ (⁴ P)4s	c ³ P	1	—	3d ³ (⁴ F)4p	y ³ D ^o	1	0.03	91FOR
15 409.161	6487.873	39	3d ² 4s(⁴ F)4d	e ⁵ G	5	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	6	0.007	05LIT
15 415.35	6485.267	6	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.02	05LIT
15 417.22	6484.480	10	3d ³ (² G)4p	y ³ H ^o	6	—	3d ² 4s(⁴ F)4d	³ G	5	0.03	91FOR
15 421.895	6482.516	25 m	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	2	0.007	05LIT
15 426.47	6480.592	10	3d ² 4s(⁴ F)4d	e ⁵ H	4	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.02	05LIT
15 426.98	6480.381	230	3d ³ (² G)4s	a ³ G	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.03	91FOR
15 442.771	6473.753	17	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.007	05LIT
15 453.38	6469.309	4	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	—	3d ² 4s(⁴ F)5s	e ³ F	3	0.03	91FOR
15 531.28	6436.859	27	3d ² 4s(⁴ F)5s	e ³ F	2	—	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.03	91FOR
15 542.21	6432.332	4	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.03	91FOR
15 543.75	6431.695	4100	3d ³ (² G)4s	a ³ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.03	91FOR
15 566.85	6422.152	9	3d ² 4s(⁴ F)4d	e ⁵ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	3	0.02	05LIT
15 571.45	6420.257	10	3d ² 4s(⁴ F)4d	e ⁵ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	3	0.02	05LIT
15 572.65	6419.760	40	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.03	91FOR
15 573.175	6419.544	11	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{9/2})4f	[2.5] ^o	2	0.007	05LIT
15 574.07	6419.176	7	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.02	05LIT
15 581.879	6415.958	23	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.007	05LIT
15 582.31	6415.781	5	3d ³ (² G)4p	y ³ H ^o	5	—	3d ² 4s(⁴ F)4d	³ G	4	0.03	91FOR
15 590.333	6412.479	49	3d ² 4s(⁴ F)4d	e ⁵ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.007	05LIT
15 593.246	6411.281	17	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{9/2})4f	[1.5] ^o	2	0.007	05LIT
15 599.13	6408.861	50	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.03	91FOR
15 602.84	6407.338	950	3d ³ (² G)4s	b ¹ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.03	91FOR
15 604.886	6406.499	48	3d ² 4s(⁴ F)4d	e ⁵ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.007	05LIT
15 605.124	6406.401	57 m	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{9/2})4f	[2.5] ^o	3	0.007	05LIT
15 613.67	6402.893	7	3d ⁴	³ F1	3	—	3d ³ (⁴ F _{9/2})4f	[4.5] ^o	4	0.02	05LIT
15 619.54	6400.487	7	3d ² 4s(⁴ F)4d	e ⁵ G	2	—	3d ² 4s(⁴ F _{5/2})4f	[0.5] ^o	1	0.02	05LIT
15 632.957	6394.995	58	3d ² 4s(⁴ F)4d	e ⁵ G	6	—	3d ² 4s(⁴ F _{9/2})4f	[7.5] ^o	7	0.007	05LIT
15 653.727	6386.510	17	3d ² 4s(⁴ F)4d	e ⁵ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.007	05LIT
15 656.230	6385.489	44	3d ² 4s(⁴ F)4d	e ⁵ G	2	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.007	05LIT
15 656.757	6385.274	14	3d ² 4s(⁴ F)4d	e ⁵ G	6	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	5	0.007	05LIT
15 661.893	6383.180	36	3d ² 4s(⁴ F)4d	e ⁵ G	2	—	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	2	0.007	05LIT
15 663.861	6382.378	22	3d ² 4s(⁴ F)4d	e ⁵ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	6	0.007	05LIT
15 666.706	6381.219	15	3d ² 4s(⁴ F)4d	e ⁵ G	6	—	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	6	0.007	05LIT
15 670.157	6379.814	55	3d ² 4s(⁴ F)4d	e ⁵ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.007	05LIT
15 685.988	6373.375	65	3d ² 4s(⁴ F)4d	e ⁵ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	6	0.007	05LIT
15 688.829	6372.221	80	3d ² 4s(⁴ F)4d	e ⁵ G	6	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	6	0.007	05LIT
15 692.035	6370.919	200*	3d ² 4s(⁴ F)4d	g ³ F	2	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.007	05LIT
15 692.035	6370.919	200*	3d ² 4s(⁴ F)4d	e ⁵ G	6	—	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	7	0.007	05LIT
15 698.98	6368.099	480	3d ³ (² G)4s	a ³ G	5	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.03	91FOR
15 699.339	6367.955	52	3d ⁴	³ F1	4	—	3d ³ (⁴ F _{9/2})4f	[5.5] ^o	5	0.007	05LIT
15 708.38	6364.291	10	3d ² 4s(⁴ F)4d	g ³ F	2	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	1	0.02	05LIT
15 715.57	6361.378	3600	3d ³ (² G)4s	a ³ G	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.03	91FOR
15 718.56	6360.170	6	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	4	0.02	05LIT
15 720.693	6359.305	37	3d ⁴	³ F1	4	—	3d ³ (⁴ F _{9/2})4f	[4.5] ^o	4	0.007	05LIT
15 729.885	6355.589	215 m	3d ² 4s(⁴ F)4d	³ D	2	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.007	05LIT
15 730.613	6355.295	53	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{9/2})4f	[2.5] ^o	2	0.007	05LIT
15 731.504	6354.935	38	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.007	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
15 731.72	6354.848	3	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	—	3d ² 4s(⁴ F)5s	e ³ F	2	0.03	91FOR
15 739.49	6351.712	8	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.02	05LIT
15 746.40	6348.925	7	3d ² 4s(⁴ F)4d	e ⁵ D	1	—	3d ² 4s(⁴ F _{7/2})4f	[0.5] ^o	0	0.02	05LIT
15 762.650	6342.378	53	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.007	05LIT
15 763.043	6342.220	77	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	4	0.007	05LIT
15 765.05	6341.412	10	3d ² 4s(⁴ F)4d	e ⁵ D	1	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.02	05LIT
15 768.41	6340.062	8	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	2	0.02	05LIT
15 774.855	6337.471	154	3d ² 4s(⁴ F)4d	e ⁵ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[6.5] ^o	6	0.007	05LIT
15 781.568	6334.775	18	3d ² 4s(⁴ F)4d	e ⁵ D	1	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	1	0.007	05LIT
15 786.468	6332.809	11	3d ² 4s(⁴ F)4d	e ⁵ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.007	05LIT
15 795.649	6329.128	25	3d ² 4s(⁴ F)4d	e ⁵ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.007	05LIT
15 811.330	6322.851	52	3d ² 4s(⁴ F)4d	e ⁵ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	6	0.008	05LIT
15 813.864	6321.838	31	3d ² 4s(⁴ F)4d	e ⁵ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.008	05LIT
15 829.962	6315.409	28	3d ² 4s(⁴ F)4d	e ⁵ H	4	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.008	05LIT
15 833.256	6314.095	59	3d ² 4s(⁴ F)4d	e ⁵ H	4	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.008	05LIT
15 836.78	6312.690	430	3d ³ (² G)4s	a ³ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.03	91FOR
15 848.271	6308.113	66	3d ² 4s(⁴ F)4d	e ⁵ H	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.008	05LIT
15 866.81	6300.741	9	3d ² 4s(⁴ F)4d	e ⁵ G	2	—	3d ² 4s(⁴ F _{3/2})4f	[1.5] ^o	2	0.03	05LIT
15 867.041	6300.651	46	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.008	05LIT
15 875.149	6297.433	152	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.008	05LIT
15 877.78	6296.391	15	3d ² 4s(⁴ F)5s	e ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ D ^o	4	0.03	91FOR
15 878.333	6296.170	64	3d ² 4s(⁴ F)4d	e ⁵ G	2	—	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	2	0.008	05LIT
15 878.802	6295.984	58	3d ² 4s(⁴ F)4d	e ⁵ G	2	—	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	3	0.008	05LIT
15 891.327	6291.022	275 m*	3d ³ (⁴ F)4p	x ⁵ D ^o	4	—	3d ² 4s(⁴ F)5s	e ⁵ F	5	0.008	05LIT
15 891.327	6291.022	275 m*	3d ² 4s(⁴ F)4d	³ D	2	—	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	3	0.008	05LIT
15 892.054	6290.734	157	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.008	05LIT
15 892.936	6290.385	52	3d ² 4s(⁴ F)4d	e ⁵ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[7.5] ^o	7	0.008	05LIT
15 899.303	6287.866	29	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{9/2})4f	[2.5] ^o	3	0.008	05LIT
15 904.797	6285.694	235	3d ² 4s(⁴ F)4d	e ⁵ G	4	—	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	5	0.008	05LIT
15 905.844	6285.280	72	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{7/2})4f	[0.5] ^o	1	0.008	05LIT
15 908.294	6284.312	13	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.008	05LIT
15 910.135	6283.585	260	3d ² 4s(⁴ F)4d	e ⁵ G	2	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	3	0.008	05LIT
15 914.238	6281.965	13	3d ² 4s(⁴ F)4d	e ⁵ H	3	—	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	3	0.008	05LIT
15 915.231	6281.573	59	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	2	0.008	05LIT
15 917.527	6280.667	18	3d ² 4s(⁴ F)4d	e ⁵ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	5	0.008	05LIT
15 917.750	6280.579	19	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	3	0.008	05LIT
15 918.63	6280.233	9	3d ⁴	³ F1	2	—	3d ³ (⁴ F _{7/2})4f	[2.5] ^o	3	0.03	05LIT
15 919.31	6279.964	20	3d ² 4s(⁴ F)5s	e ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ D ^o	3	0.03	91FOR
15 920.574	6279.465	21	3d ² 4s(⁴ F)4d	e ⁵ G	4	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	5	0.008	05LIT
15 921.160	6279.234	49	3d ² 4s(⁴ F)4d	e ⁵ G	4	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	4	0.008	05LIT
15 925.14	6277.666	8	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	1	0.03	05LIT
15 926.55	6277.108	6	3d ³ (³ P)4s	c ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.03	91FOR
15 927.615	6276.689	19	3d ² 4s(⁴ F)4d	e ⁵ H	3	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.008	05LIT
15 928.008	6276.534	42	3d ² 4s(⁴ F)4d	e ⁵ H	3	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	4	0.008	05LIT
15 930.503	6275.551	21	3d ⁴	³ F1	3	—	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	3	0.008	05LIT
15 932.34	6274.826	10	3d ² 4s(⁴ F)4d	e ⁵ H	3	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	4	0.03	05LIT
15 934.312	6274.051	40	3d ² 4s(⁴ F)4d	e ⁵ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.008	05LIT
15 941.03	6271.406	8	3d ⁴	³ F1	3	—	3d ³ (⁴ F _{7/2})4f	[2.5] ^o	3	0.03	05LIT
15 950.685	6267.611	289	3d ² 4s(⁴ F)4d	e ⁵ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	6	0.008	05LIT
15 954.004	6266.307	590 m	3d ² 4s(⁴ F)4d	e ⁵ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	7	0.008	05LIT
15 967.864	6260.868	92	3d ² 4s(⁴ F)4d	³ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
15 977.280	6257.178	335	3d ² 4s(⁴ F)4d	³ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.008	05LIT
15 979.92	6256.146	20	3d ² 4s(⁴ F)5s	e ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ D ^o	2	0.03	91FOR
15 980.644	6255.861	68	3d ² 4s(⁴ F)4d	³ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.008	05LIT
15 984.724	6254.264	22	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.008	05LIT
15 988.29	6252.871	8	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	3	0.03	05LIT
15 989.395	6252.437	28	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	3	0.008	05LIT
15 994.135	6250.584	36	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	4	0.008	05LIT
15 995.945	6249.877	34	3d ² 4s(⁴ F)4d	³ G	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.008	05LIT
16 001.349	6247.766	99	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
16 008.834	6244.845	372	3d ² 4s(⁴ F)4d	e ⁵ G	3	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	4	0.008	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
16012.808	6243.295	11	3d ² 4s(4F)4d	³ G	5	—	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	0.008	05LIT
16013.47	6243.039	5	3d ² 4s(4F)4d	g ³ F	2	—	3d ² 4s(4F _{5/2})4f	[0.5] ^o	1	0.03	05LIT
16014.178	6242.761	26	3d ² 4s(4F)4d	g ³ F	3	—	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	0.008	05LIT
16020.062	6240.468	28	3d ² 4s(4F)4d	e ⁵ G	3	—	3d ² 4s(4F _{3/2})4f	[3.5] ^o	3	0.008	05LIT
16026.557	6237.939	39	3d ² 4s(4F)4d	g ³ F	2	—	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	0.008	05LIT
16027.942	6237.400	21	3d ² 4s(4F)4d	³ G	3	—	3d ² 4s(4F _{5/2})4f	[2.5] ^o	3	0.008	05LIT
16034.521	6234.841	408 m	3d ² 4s(4F)5s	e ⁵ F	1	—	3d ² 4s(4F)5p	⁵ D ^o	1	0.008	05LIT
16034.750	6234.752	69	3d ² 4s(4F)4d	³ G	5	—	3d ² 4s(4F _{9/2})4f	[5.5] ^o	5	0.008	05LIT
16037.157	6233.816	11	3d ⁴	³ F1	4	—	3d ³ (4F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
16038.441	6233.317	96	3d ² 4s(4F)4d	g ³ F	2	—	3d ² 4s(4F _{5/2})4f	[2.5] ^o	3	0.008	05LIT
16041.522	6232.120	91	3d ² 4s(4F)4d	³ G	3	—	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	0.008	05LIT
16041.918	6231.966	326*	3d ⁴	³ F1	4	—	3d ³ (4F _{7/2})4f	[3.5] ^o	3	0.008	05LIT
16041.918	6231.966	326*	3d ² 4s(4F)4d	³ G	3	—	3d ² 4s(4F _{5/2})4f	[3.5] ^o	4	0.008	05LIT
16045.172	6230.702	304	3d ² 4s(4F)4d	³ G	5	—	3d ² 4s(4F _{9/2})4f	[6.5] ^o	6	0.008	05LIT
16046.303	6230.263	79	3d ² 4s(4F)4d	³ G	3	—	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4	0.008	05LIT
16046.67	6230.122	9	3d ⁴	³ F1	4	—	3d ³ (4F _{7/2})4f	[4.5] ^o	5	0.03	05LIT
16047.472	6229.809	15	3d ² 4s(4F)4d	³ G	3	—	3d ² 4s(4F _{5/2})4f	[2.5] ^o	2	0.008	05LIT
16051.316	6228.317	203	3d ² 4s(4F)4d	e ⁵ D	4	—	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	0.008	05LIT
16051.770	6228.141	85	3d ² 4s(4F)4d	³ G	5	—	3d ² 4s(4F _{9/2})4f	[4.5] ^o	5	0.008	05LIT
16052.041	6228.036	18	3d ² 4s(4F)4d	g ³ F	2	—	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	0.008	05LIT
16064.827	6223.079	99	3d ² 4s(4F)4d	e ⁵ D	4	—	3d ² 4s(4F _{9/2})4f	[3.5] ^o	3	0.008	05LIT
16065.106	6222.971	79	3d ² 4s(4F)4d	e ⁵ H	5	—	3d ² 4s(4F _{7/2})4f	[6.5] ^o	6	0.008	05LIT
16065.73	6222.731	9	3d ³ (4F)4p	x ⁵ D ^o	3	—	3d ² 4s(4F)5s	e ⁵ F	4	0.03	91FOR
16068.40	6221.694	9	3d ² 4s(4F)4d	³ G	5	—	3d ² 4s(4F _{9/2})4f	[5.5] ^o	6	0.03	05LIT
16073.356	6219.777	227	3d ² 4s(4F)4d	e ⁵ D	4	—	3d ² 4s(4F _{9/2})4f	[5.5] ^o	5	0.008	05LIT
16083.963	6215.675	33	3d ² 4s(4F)4d	e ⁵ D	1	—	3d ² 4s(4F _{5/2})4f	[0.5] ^o	0	0.008	05LIT
16086.675	6214.627	16	3d ² 4s(4F)4d	e ⁵ H	5	—	3d ² 4s(4F _{7/2})4f	[5.5] ^o	5	0.008	05LIT
16087.708	6214.228	590	3d ² 4s(4F)4d	e ⁵ G	6	—	3d ² 4s(4F _{7/2})4f	[6.5] ^o	7	0.008	05LIT
16089.531	6213.524	23	3d ² 4s(4F)4d	e ⁵ D	1	—	3d ² 4s(4F _{5/2})4f	[0.5] ^o	1	0.008	05LIT
16090.080	6213.312	43	3d ² 4s(4F)4d	e ⁵ H	5	—	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	0.008	05LIT
16097.902	6210.293	22	3d ² 4s(4F)4d	e ⁵ D	4	—	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	0.008	05LIT
16102.935	6208.352	458	3d ² 4s(4F)4d	e ⁵ H	5	—	3d ² 4s(4F _{7/2})4f	[5.5] ^o	6	0.008	05LIT
16105.581	6207.332	194	3d ² 4s(4F)4d	e ⁵ H	5	—	3d ² 4s(4F _{7/2})4f	[4.5] ^o	5	0.008	05LIT
16105.929	6207.198	138	3d ² 4s(4F)4d	e ⁵ G	6	—	3d ² 4s(4F _{7/2})4f	[5.5] ^o	6	0.008	05LIT
16108.573	6206.179	16	3d ² 4s(4F)4d	e ⁵ G	6	—	3d ² 4s(4F _{7/2})4f	[4.5] ^o	5	0.008	05LIT
16109.598	6205.784	38	3d ² 4s(4F)4d	e ⁵ D	1	—	3d ² 4s(4F _{5/2})4f	[1.5] ^o	1	0.008	05LIT
16121.94	6201.035	7*	3d ² 4s(4F)5p	⁵ F ^o	2	—	3d ² 4p ²	⁵ F	2	0.03	05LIT
16121.94	6201.035	7*	3d ² 4s(4F)4d	e ⁵ G	5	—	3d ² 4s(4F _{5/2})4f	[5.5] ^o	5	0.03	05LIT
16125.683	6199.594	660	3d ² 4s(4F)4d	e ⁵ G	5	—	3d ² 4s(4F _{5/2})4f	[5.5] ^o	6	0.008	05LIT
16129.372	6198.176	61	3d ² 4s(4F)4d	³ H	4	—	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	0.008	05LIT
16134.477	6196.215	20	3d ² 4s(4F)4d	e ⁵ D	1	—	3d ² 4s(4F _{5/2})4f	[2.5] ^o	2	0.008	05LIT
16134.85	6196.073	26	3d ³ (4F)4p	w ³ G ^o	5	—	3d ² 4s(4F)5s	e ³ F	4	0.03	91FOR
16135.797	6195.708	1150	3d ² 4s(4F)4d	e ⁵ H	7	—	3d ² 4s(4F _{9/2})4f	[7.5] ^o	8	0.008	05LIT
16138.162	6194.800	82	3d ² 4s(4F)4d	e ⁵ G	5	—	3d ² 4s(4F _{5/2})4f	[4.5] ^o	5	0.008	05LIT
16141.529	6193.508	402	3d ² 4s(4F)4d	e ⁵ G	4	—	3d ² 4s(4F _{3/2})4f	[4.5] ^o	5	0.008	05LIT
16141.91	6193.363	26	3d ² 4s(4F)5s	e ⁵ F	1	—	3d ² 4s(4F)5p	⁵ D ^o	0	0.03	91FOR
16143.02	6192.935	9	3d ² 4s(4F)4d	³ H	4	—	3d ² 4s(4F _{9/2})4f	[3.5] ^o	3	0.03	05LIT
16145.63	6191.936	8	3d ² 4s(4F)4d	e ⁵ H	3	—	3d ² 4s(4F _{3/2})4f	[1.5] ^o	2	0.03	05LIT
16146.85	6191.466	10	3d ³ (4P)4s	c ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ⁵ S ^o	2	0.03	91FOR
16150.62	6190.020	10	3d ² 4s(4F)4d	e ⁵ D	3	—	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2	0.03	05LIT
16151.405	6189.721	12	3d ² 4s(4F)4d	³ H	4	—	3d ² 4s(4F _{9/2})4f	[4.5] ^o	4	0.008	05LIT
16151.632	6189.634	94	3d ² 4s(4F)4d	³ H	4	—	3d ² 4s(4F _{9/2})4f	[5.5] ^o	5	0.008	05LIT
16155.393	6188.193	109	3d ² 4s(4F)4d	e ⁵ D	3	—	3d ² 4s(4F _{7/2})4f	[2.5] ^o	3	0.008	05LIT
16157.706	6187.307	152	3d ² 4s(4F)4d	e ⁵ H	4	—	3d ² 4s(4F _{5/2})4f	[5.5] ^o	5	0.008	05LIT
16158.033	6187.182	70	3d ² 4s(4F)4d	e ⁵ H	3	—	3d ² 4s(4F _{3/2})4f	[2.5] ^o	3	0.008	05LIT
16160.357	6186.292	53	3d ² 4s(4F)4d	e ⁵ D	3	—	3d ² 4s(4F _{7/2})4f	[3.5] ^o	3	0.008	05LIT
16161.190	6185.973	30	3d ² 4s(4F)4d	e ⁵ H	7	—	3d ² 4s(4F _{9/2})4f	[5.5] ^o	6	0.008	05LIT
16164.005	6184.896	499	3d ² 4s(4F)4d	e ⁵ H	3	—	3d ² 4s(4F _{3/2})4f	[4.5] ^o	4	0.008	05LIT
16164.598	6184.669	239	3d ² 4s(4F)4d	e ⁵ H	7	—	3d ² 4s(4F _{9/2})4f	[6.5] ^o	7	0.008	05LIT
16167.599	6183.521	218	3d ² 4s(4F)4d	e ⁵ D	3	—	3d ² 4s(4F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
16168.909	6183.020	16	3d ² 4s(4F)4d	³ H	4	—	3d ² 4s(4F _{9/2})4f	[4.5] ^o	5	0.008	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
16 169.722	6182.709	22	3d ² 4s(4F)4d	e ⁵ H	4	–	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	0.008	05LIT
16 170.128	6182.554	158	3d ² 4s(4F)4d	e ⁵ H	4	–	3d ² 4s(4F _{5/2})4f	[3.5] ^o	4	0.008	05LIT
16 173.976	6181.083	288	3d ² 4s(4F)4d	e ⁵ H	4	–	3d ² 4s(4F _{5/2})4f	[4.5] ^o	5	0.008	05LIT
16 174.580	6180.852	27	3d ² 4s(4F)4d	e ⁵ H	4	–	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4	0.008	05LIT
16 175.90	6180.348	47	3d ² 4s(4F)5s	e ⁵ F	2	–	3d ² 4s(4F)5p	⁵ D ^o	1	0.03	91FOR
16 176.420	6180.149	26	3d ² 4s(4F)4d	³ H	4	–	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	0.008	05LIT
16 179.01	6179.161	6	3d ² 4s(4F)4d	e ⁵ H	3	–	3d ² 4s(4F _{3/2})4f	[3.5] ^o	4	0.03	05LIT
16 180.693	6178.517	16	3d ² 4s(4F)4d	e ⁵ D	3	–	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	0.008	05LIT
16 189.398	6175.195	25	3d ⁴	³ F1	2	–	3d ³ (4F _{5/2})4f	[2.5] ^o	3	0.008	05LIT
16 190.475	6174.784	25	3d ² 4s(4F)4d	e ⁵ H	3	–	3d ² 4s(4F _{3/2})4f	[3.5] ^o	3	0.008	05LIT
16 194.63	6173.198	75	3d ² 4s(4F)5s	e ⁵ F	3	–	3d ² 4s(4F)5p	⁵ D ^o	2	0.03	91FOR
16 198.369	6171.775	12	3d ⁴	³ F1	3	–	3d ³ (4F _{5/2})4f	[4.5] ^o	4	0.008	05LIT
16 201.68	6170.512	20	3d ³ (4F)4p	w ³ G ^o	4	–	3d ² 4s(4F)5s	e ³ F	3	0.03	91FOR
16 206.105	6168.829	11	3d ⁴	³ F1	3	–	3d ³ (4F _{5/2})4f	[3.5] ^o	4	0.008	05LIT
16 206.70	6168.601	540	3d ³ (² F)4s	³ F	4	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.03	91FOR
16 209.40	6167.575	100	3d ² 4s(4F)5s	e ⁵ F	4	–	3d ² 4s(4F)5p	⁵ D ^o	3	0.03	91FOR
16 216.03	6165.054	16	3d ³ (4F)4p	w ³ G ^o	3	–	3d ² 4s(4F)5s	e ³ F	2	0.03	91FOR
16 224.09	6161.992	8	3d ² 4s(4F)5p	⁵ G ^o	6	–	3d ² 4s(4F)5d	g ⁵ H	7	0.03	91FOR
16 239.49	6156.146	4	3d ³ (² D)4s	³ D	3	–	3d ³ (² G)4p	t ³ F ^o	4	0.03	91FOR
16 245.27	6153.958	180	3d ² 4s(4F)5s	e ⁵ F	5	–	3d ² 4s(4F)5p	⁵ D ^o	4	0.03	91FOR
16 252.239	6151.318	47	3d ² 4s(4F)4d	e ⁵ D	2	–	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	0.008	05LIT
16 259.24	6148.671	5	3d ² 4s(4F)4d	e ⁵ D	2	–	3d ² 4s(4F _{3/2})4f	[1.5] ^o	1	0.03	05LIT
16 259.45	6148.590	4	3d ³ (4F)4p	x ⁵ D ^o	4	–	3d ² 4s(4F)5s	e ⁵ F	4	0.03	91FOR
16 264.465	6146.694	103 m	3d ² 4s(4F)5p	⁵ G ^o	4	–	3d ² 4s(4F)5d	g ⁵ H	5	0.008	05LIT
16 270.46	6144.428	5	3d ² 4s(4F)5p	⁵ G ^o	5	–	3d ² 4s(4F)5d	g ⁵ H	6	0.03	91FOR
16 273.490	6143.285	40	3d ² 4s(4F)4d	g ³ F	2	–	3d ² 4s(4F _{3/2})4f	[1.5] ^o	2	0.008	05LIT
16 275.27	6142.615	9	3d ² 4s(4F)4d	³ G	3	–	3d ² 4s(4F _{3/2})4f	[2.5] ^o	3	0.03	05LIT
16 277.75	6141.677	7	3d ² 4s(4F)4d	e ⁵ D	0	–	3d ² 4s(4F _{3/2})4f	[1.5] ^o	1	0.03	05LIT
16 278.440	6141.417	12	3d ² 4s(4F)4d	e ⁵ D	2	–	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	0.008	05LIT
16 286.083	6138.535	94	3d ² 4s(4F)4d	g ³ F	2	–	3d ² 4s(4F _{3/2})4f	[2.5] ^o	3	0.008	05LIT
16 289.72	6137.166	47	3d ³ (² F)4s	³ F	3	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	0.03	91FOR
16 296.559	6134.589	107	3d ² 4s(4F)4d	³ G	3	–	3d ² 4s(4F _{3/2})4f	[3.5] ^o	4	0.008	05LIT
16 298.37	6133.908	8	3d ² 4s(4F)4d	g ³ F	4	–	3d ² 4s(4F _{7/2})4f	[2.5] ^o	3	0.03	05LIT
16 301.47	6132.740	7	3d ² 4s(4F)5s	e ⁵ F	2	–	3d ² 4s(4F)5p	q ³ D ^o	1	0.03	91FOR
16 303.410	6132.011	13	3d ² 4s(4F)4d	g ³ F	4	–	3d ² 4s(4F _{7/2})4f	[3.5] ^o	3	0.008	05LIT
16 308.19	6130.215	5	3d ² 4s(4F)4d	³ G	3	–	3d ² 4s(4F _{3/2})4f	[3.5] ^o	3	0.03	05LIT
16 308.75	6130.002	4	3d ³ (4F)4p	x ⁵ D ^o	0	–	3d ² 4s(4F)5s	e ⁵ F	1	0.03	91FOR
16 310.783	6129.239	21	3d ² 4s(4F)4d	g ³ F	4	–	3d ² 4s(4F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
16 311.217	6129.076	69	3d ² 4s(4F)4d	³ G	4	–	3d ² 4s(4F _{5/2})4f	[5.5] ^o	5	0.008	05LIT
16 319.045	6126.136	20	3d ² 4s(4F)4d	g ³ F	2	–	3d ² 4s(4F _{3/2})4f	[3.5] ^o	3	0.008	05LIT
16 321.40	6125.251	8	3d ⁴	³ F1	4	–	3d ³ (4F _{5/2})4f	[3.5] ^o	4	0.03	05LIT
16 323.87	6124.326	8	3d ² 4s(4F)4d	³ G	4	–	3d ² 4s(4F _{5/2})4f	[3.5] ^o	4	0.03	05LIT
16 324.116	6124.233	75	3d ² 4s(4F)4d	g ³ F	4	–	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	0.008	05LIT
16 327.80	6122.850	7	3d ² 4s(4F)4d	³ G	4	–	3d ² 4s(4F _{5/2})4f	[4.5] ^o	5	0.03	05LIT
16 330.54	6121.825	390	3d ³ (² F)4s	³ F	3	–	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.03	91FOR
16 332.01	6121.273	10	3d ² 4s(4F)4d	g ³ F	3	–	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	0.03	05LIT
16 340.071	6118.253	111	3d ² 4s(4F)4d	g ³ F	4	–	3d ² 4s(4F _{7/2})4f	[4.5] ^o	5	0.008	05LIT
16 344.340	6116.655	81	3d ² 4s(4F)4d	g ³ F	3	–	3d ² 4s(4F _{5/2})4f	[2.5] ^o	3	0.008	05LIT
16 352.053	6113.770	40	3d ² 4s(4F)4d	e ⁵ D	1	–	3d ² 4s(4F _{3/2})4f	[1.5] ^o	2	0.008	05LIT
16 358.472	6111.371	21	3d ² 4s(4F)4d	g ³ F	3	–	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	0.008	05LIT
16 358.881	6111.218	12	3d ² 4s(4F)4d	g ³ F	3	–	3d ² 4s(4F _{5/2})4f	[3.5] ^o	4	0.008	05LIT
16 361.19	6110.357	4	3d ³ (4F)4p	x ⁵ D ^o	3	–	3d ² 4s(4F)5s	e ⁵ F	3	0.03	91FOR
16 361.56	6110.216	15	3d ² 4s(4F)5s	e ⁵ F	3	–	3d ² 4s(4F)5p	q ³ D ^o	2	0.03	91FOR
16 363.160	6109.620	141	3d ² 4s(4F)4d	e ⁵ H	6	–	3d ² 4s(4F _{7/2})4f	[6.5] ^o	7	0.008	05LIT
16 363.439	6109.516	140	3d ² 4s(4F)4d	g ³ F	3	–	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4	0.008	05LIT
16 364.277	6109.203	95	3d ² 4s(4F)4d	e ⁵ D	1	–	3d ² 4s(4F _{3/2})4f	[2.5] ^o	2	0.008	05LIT
16 372.05	6106.301	4	3d ³ (4F)4p	x ⁵ D ^o	2	–	3d ² 4s(4F)5s	e ⁵ F	2	0.03	91FOR
16 377.973	6104.094	15	3d ⁴	³ F1	2	–	3d ³ (4F _{3/2})4f	[3.5] ^o	3	0.008	05LIT
16 380.86	6103.019	100	3d ³ (⁴ P)4s	c ³ P	0	–	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.03	91FOR
16 382.010	6102.590	33	3d ² 4s(4F)4d	e ⁵ H	6	–	3d ² 4s(4F _{7/2})4f	[5.5] ^o	6	0.008	05LIT
16 393.36	6098.365	10	3d ⁴	³ F1	3	–	3d ³ (4F _{3/2})4f	[3.5] ^o	4	0.03	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
16395.13	6097.708	50	3d ³ (² F)4s	³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	0.03	91FOR
16396.691	6097.126	11	3d ⁴	³ F1	2	—	3d ³ (⁴ F _{3/2})4f	[2.5] ^o	3	0.008	05LIT
16401.52	6095.329	290	3d ³ (⁴ P)4s	c ³ P	1	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.03	91FOR
16402.076	6095.124	15*	3d ² 4s(⁴ F)4d	g ⁵ F	3	—	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
16402.076	6095.124	15*	3d ² 4s(⁴ F)4d	e ⁵ H	4	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	5	0.008	05LIT
16413.03	6091.055	250	3d ³ (² F)4s	³ F	2	—	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	0.03	91FOR
16429.090	6085.102	58	3d ² 4s(⁴ F)4d	e ⁵ H	5	—	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	6	0.008	05LIT
16429.90	6084.801	11	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.03	91FOR
16442.071	6080.298	12	3d ² 4s(⁴ F)4d	e ⁵ H	5	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	5	0.008	05LIT
16466.444	6071.298	250	3d ² 4s(⁴ F)4d	³ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[6.5] ^o	6	0.008	05LIT
16489.103	6062.955	38	3d ² 4s(⁴ F)4d	³ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.008	05LIT
16498.532	6059.490	28	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{7/2})4f	[0.5] ^o	0	0.008	05LIT
16505.23	6057.031	9	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{5/2})4f	[1.5] ^o	2	0.03	05LIT
16506.236	6056.662	56 m	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{3/2})4f	[1.5] ^o	2	0.008	05LIT
16507.116	6056.339	13	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	3	0.008	05LIT
16509.00	6055.648	8	3d ² 4s(⁴ F)4d	³ G	5	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.03	05LIT
16511.312	6054.800	85	3d ⁴	³ F1	4	—	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	4	0.008	05LIT
16516.37	6052.946	10	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{7/2})4f	[0.5] ^o	1	0.03	05LIT
16517.840	6052.407	30	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	3	0.008	05LIT
16519.025	6051.973	22	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.008	05LIT
16519.188	6051.913	48	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	3	0.008	05LIT
16519.865	6051.665	41	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
16529.942	6047.976	70	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.008	05LIT
16532.26	6047.127	7	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.03	05LIT
16533.534	6046.662	17	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.008	05LIT
16537.179	6045.329	35	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	1	0.008	05LIT
16537.346	6045.268	49	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	4	0.008	05LIT
16538.51	6044.841	7*	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	4	0.03	05LIT
16538.51	6044.841	7*	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	2	0.03	05LIT
16539.46	6044.495	11	3d ² 4s(⁴ F)5s	e ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.03	91FOR
16549.912	6040.678	45	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.008	05LIT
16553.102	6039.514	31	3d ² 4s(⁴ F)4d	e ⁵ D	2	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	3	0.008	05LIT
16560.294	6036.891	149	3d ² 4s(⁴ F)4d	³ G	4	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	5	0.008	05LIT
16561.62	6036.406	9	3d ² 4s(⁴ F)4d	g ⁵ F	5	—	3d ³ (⁴ F _{9/2})4f	[4.5] ^o	5	0.03	05LIT
16561.885	6036.311	49	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	5	0.008	05LIT
16570.881	6033.034	72	3d ² 4s4d	³ P	2	—	3d ² 4s(⁴ F _{9/2})4f	[1.5] ^o	2	0.008	05LIT
16573.016	6032.257	185	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	6	0.008	05LIT
16580.055	6029.696	35	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.008	05LIT
16584.313	6028.148	28	3d ² 4s4d	³ P	2	—	3d ² 4s(⁴ F _{9/2})4f	[2.5] ^o	3	0.008	05LIT
16587.17	6027.109	5	3d ² 4s(⁴ F)5p	⁵ F ^o	4	—	3d ² 4s(⁴ F)5d	h ⁵ G	5	0.03	91FOR
16587.64	6026.940	5*	3d ² 4s(⁴ F)4d	³ G	4	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	4	0.03	05LIT
16587.64	6026.940	5*	3d ² 4s(⁴ F)4d	g ⁵ F	5	—	3d ³ (⁴ F _{9/2})4f	[3.5] ^o	4	0.03	05LIT
16595.00	6024.264	8	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.03	91FOR
16602.554	6021.525	32	3d ² 4s(⁴ F)4d	³ H	4	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.008	05LIT
16605.58	6020.426	11	3d ³ (⁴ P)4s	a ⁵ P	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.03	91FOR
16607.91	6019.584	8	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	4	0.03	05LIT
16612.737	6017.834	100	3d ² 4s(⁴ F)4d	³ H	4	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.008	05LIT
16615.14	6016.963	11	3d ² 4s(⁴ F)5s	e ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ F ^o	5	0.03	91FOR
16623.75	6013.846	7	3d ² 4s(⁴ F)4d	g ³ F	3	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	4	0.03	05LIT
16635.16	6009.724	420	3d ³ (⁴ P)4s	c ³ P	2	—	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.03	91FOR
16641.32	6007.496	5	3d ² 4s(⁴ F)5p	⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	h ⁵ G	6	0.03	91FOR
16669.200	5997.450	38	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	5	0.008	05LIT
16674.08	5995.693	18	3d ² 4s(⁴ F)5s	e ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ F ^o	4	0.03	91FOR
16681.15	5993.153	7	3d ² 4s(² F)5s	³ F	2	—	3d ³ (² F)4p	p ³ F ^o	2	0.03	91FOR
16682.014	5992.843	12	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.008	05LIT
16686.528	5991.222	34	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	5	0.008	05LIT
16687.174	5990.990	12	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	4	0.008	05LIT
16712.44	5981.933	21	3d ² 4s(² F)5s	³ F	4	—	3d ³ (² F)4p	p ³ F ^o	4	0.03	91FOR
16724.53	5977.610	12	3d ³ (⁴ P)4s	a ⁵ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.03	91FOR
16740.06	5972.062	1700 bl	3d ² 4s(⁴ F)5s	e ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ F ^o	3	0.03	91FOR
16771.80	5960.761	9	3d ³ (⁴ F)4p	w ³ F ^o	3	—	3d ³ (⁴ F)5s	f ³ F	3	0.03	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
16784.97	5956.084	6	3d ³ (⁴ P)4s	a ⁵ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.03	91FOR
16787.09	5955.332	9	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	4	0.03	05LIT
16803.277	5949.595	12	3d ² 4s(⁴ F)4d	e ⁵ D	3	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	4	0.008	05LIT
16809.77	5947.297	16	3d ² 4s(⁴ F)5s	e ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ F ^o	2	0.03	91FOR
16849.081	5933.421	77	3d ² 4s(⁴ F)4d	³ G	5	—	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	6	0.009	05LIT
16853.13	5931.996	4	3d ⁴	³ P2	2	—	3d4s ² 4p	v ³ P ^o	2	0.03	91FOR
16862.56	5928.680	66	3d ² 4s(⁴ F)5s	e ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.03	91FOR
16869.53	5926.230	9	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{5/2})4f	[0.5] ^o	0	0.03	05LIT
16875.660	5924.076	32	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{5/2})4f	[0.5] ^o	1	0.009	05LIT
16877.69	5923.363	79	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.03	91FOR
16887.18	5920.035	100	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.03	91FOR
16887.633	5919.876	33	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	5	0.009	05LIT
16890.17	5918.986	8	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{5/2})4f	[1.5] ^o	2	0.03	05LIT
16897.75	5916.333	6	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{5/2})4f	[1.5] ^o	1	0.03	05LIT
16907.63	5912.876	9	3d ² 4s(² F)5s	³ F	3	—	3d ³ (² F)4p	p ³ F ^o	3	0.03	91FOR
16925.115	5906.766	37	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	2	0.009	05LIT
16929.434	5905.259	14	3d ² 4s(⁴ F)4d	g ³ F	4	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	5	0.009	05LIT
16959.74	5894.708	47	3d ² 4s(⁴ F)5s	e ⁵ F	1	—	3d ² 4s(⁴ F)5p	⁵ F ^o	1	0.03	91FOR
16962.09	5893.891	3	3d ³ (² D1)4s	³ D	1	—	3d ³ (² G)4p	t ³ F ^o	2	0.03	91FOR
16965.22	5892.804	67	3d ² 4s(⁴ F)5s	e ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ F ^o	2	0.03	91FOR
16974.062	5889.733	143	3d ² 4s(⁴ F)4d	³ H	4	—	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	5	0.009	05LIT
16975.68	5889.170	100	3d ² 4s(⁴ F)5s	e ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ F ^o	3	0.03	91FOR
16991.080	5883.834	780	3d ² 4s(⁴ F)4d	³ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[7.5] ^o	7	0.009	05LIT
16992.024	5883.507	52	3d ² 4s(⁴ F)4d	³ H	4	—	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	5	0.009	05LIT
16992.60	5883.308	150	3d ² 4s(⁴ F)5s	e ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ F ^o	4	0.03	91FOR
17010.864	5876.991	40	3d ² 4s4d	³ P	2	—	3d ² 4s(⁴ F _{7/2})4f	[0.5] ^o	1	0.009	05LIT
17013.681	5876.018	50	3d ² 4s4d	³ P	2	—	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.009	05LIT
17018.03	5874.516	200	3d ² 4s(⁴ F)5s	e ⁵ F	5	—	3d ² 4s(⁴ F)5p	⁵ F ^o	5	0.03	91FOR
17018.966	5874.193	11	3d ² 4s4d	³ P	2	—	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	3	0.009	05LIT
17019.20	5874.111	9	3d ² 4s(⁴ F)4d	³ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	5	0.03	05LIT
17021.598	5873.285	15	3d ² 4s4d	³ P	2	—	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	2	0.009	05LIT
17022.847	5872.854	366	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{7/2})4f	[6.5] ^o	6	0.009	05LIT
17024.47	5872.294	6	3d ² 4s4d	³ P	2	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	3	0.03	05LIT
17025.16	5872.057	16	3d ⁴	³ H	6	—	3d ³ (² H)4p	³ G ^o	5	0.03	91FOR
17028.09	5871.044	8	3d ³ (⁴ F)4p	w ³ F ^o	2	—	3d ³ (⁴ F)5s	f ³ F	2	0.03	91FOR
17030.949	5870.060	133	3d ² 4s(⁴ F)4d	³ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	6	0.009	05LIT
17036.35	5868.200	7	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.03	05LIT
17038.38	5867.500	6	3d ² 4s(⁴ F)4d	³ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.03	05LIT
17047.064	5864.511	65	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.009	05LIT
17060.89	5859.757	10	3d ² 4s(⁴ F)4d	³ H	6	—	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	7	0.03	05LIT
17065.330	5858.234	38	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	6	0.009	05LIT
17068.31	5857.212	10	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.03	05LIT
17074.01	5855.257	12	3d ⁴	³ H	5	—	3d ³ (² H)4p	³ G ^o	4	0.03	91FOR
17117.97	5840.218	19	3d ² 4s(⁴ F)5s	e ⁵ F	2	—	3d ² 4s(⁴ F)5p	⁵ F ^o	1	0.04	91FOR
17154.772	5827.690	45	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	5	0.009	05LIT
17164.29	5824.457	9	3d ⁴	³ H	4	—	3d ³ (² H)4p	³ G ^o	3	0.04	91FOR
17164.680	5824.326	61	3d ² 4s4d	³ P	1	—	3d ² 4s(⁴ F _{3/2})4f	[1.5] ^o	2	0.009	05LIT
17184.097	5817.745	13	3d ² 4s(⁴ F)4d	e ⁵ D	4	—	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	4	0.009	05LIT
17207.41	5809.862	24	3d ² 4s(⁴ F)5s	e ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ F ^o	2	0.04	91FOR
17214.26	5807.552	7	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.04	91FOR
17243.962	5797.548	120	3d ² 4s(⁴ F)4d	³ H	4	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	5	0.009	05LIT
17256.496	5793.337	18	3d ² 4s(⁴ F)4d	³ H	4	—	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	4	0.009	05LIT
17305.94	5776.784	23	3d ² 4s(⁴ F)5s	e ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ F ^o	3	0.04	91FOR
17326.37	5769.973	54	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ³ (² F)4s	³ F	2	0.04	91FOR
17360.59	5758.599	6	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.04	91FOR
17374.49	5753.993	7	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	2	—	3d ³ (² D1)4s	³ D	1	0.04	91FOR
17376.57	5753.304	170	3d ² 4s(⁴ F)5s	e ⁵ F	4	—	3d ² 4s(⁴ F)5p	⁵ G ^o	5	0.04	91FOR
17383.10	5751.144	140	3d ² 4s(⁴ F)5s	e ⁵ F	3	—	3d ² 4s(⁴ F)5p	⁵ G ^o	4	0.04	91FOR
17384.79	5750.584	20	3d ² 4s(⁴ F)5s	e ¹ F	3	—	3d ³ (² F)4p	³ G ^o	4	0.04	91FOR
17388.51	5749.355	200	3d ² 4s(⁴ F)5s	e ⁵ F	5	—	3d ² 4s(⁴ F)5p	⁵ G ^o	6	0.04	91FOR
17399.09	5745.858	14	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	—	3d ³ (² F)4s	³ F	3	0.04	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
17 406.91	5743.278	96	3d ² 4s(4F)5s	e ⁵ F	2	—	3d ² 4s(4F)5p	⁵ G ^o	3	0.04	91FOR
17 407.67	5743.026	6	3d ² 4s4d	³ P	2	—	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	0.03	05LIT
17 414.20	5740.873	14	3d ² 4s(4F)5s	e ⁵ F	5	—	3d ² 4s(4F)5p	⁵ F ^o	4	0.04	91FOR
17 427.48	5736.498	4	3d ² (1D)4s4p(3P ^o)	x ³ F ^o	2	—	3d ³ (2D1)4s	³ D	2	0.04	91FOR
17 432.101	5734.977	98	3d ² 4s(4F)4d	³ H	5	—	3d ² 4s(4F _{5/2})4f	[5.5] ^o	6	0.009	05LIT
17 437.720	5733.129	42	3d ² 4s4d	³ P	2	—	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	0.009	05LIT
17 444.764	5730.814	16	3d ² 4s4d	³ P	2	—	3d ² 4s(4F _{5/2})4f	[2.5] ^o	2	0.009	05LIT
17 446.74	5730.164	82	3d ² 4s(4F)5s	e ⁵ F	1	—	3d ² 4s(4F)5p	⁵ G ^o	2	0.04	91FOR
17 516.58	5707.318	5	3d ² (1G)4s4p(3P ^o)	v ³ F ^o	3	—	3d ³ (4F)5s	f ³ F	4	0.04	91FOR
17 529.637	5703.067	54	3d ² 4s(4F)4d	³ H	6	—	3d ² 4s(4F _{7/2})4f	[6.5] ^o	7	0.009	05LIT
17 551.266	5696.039	15	3d ² 4s(4F)4d	³ H	6	—	3d ² 4s(4F _{7/2})4f	[5.5] ^o	6	0.009	05LIT
17 605.69	5678.431	6	3d ³ (4F)4d	⁵ G	4	—	3d ³ (4F _{9/2})4f	[5.5] ^o	5	0.03	05LIT
17 613.789	5675.820	19	3d ² 4s(4F)4d	e ⁵ P	2	—	3d ² 4s(4F _{9/2})4f	[1.5] ^o	2	0.009	05LIT
17 614.25	5675.672	14	3d ² 4s(4F)5s	e ⁵ F	2	—	3d ² 4s(4F)5p	⁵ G ^o	2	0.04	91FOR
17 627.58	5671.381	9	3d ² (3F)4s4p(3P ^o)	z ³ F ^o	3	—	3d ³ (2F)4s	³ F	2	0.04	91FOR
17 628.96	5670.936	8	3d ² 4s(4F)4d	e ⁵ P	2	—	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	0.03	05LIT
17 632.54	5669.785	8	3d ³ (4F)4d	⁵ G	4	—	3d ³ (4F _{9/2})4f	[4.5] ^o	4	0.03	05LIT
17 633.01	5669.632	24	3d ² (1D)4s4p(1P ^o)	y ¹ F ^o	3	—	3d ⁴	¹ G ₂	4	0.04	91FOR
17 661.94	5660.345	17	3d ² 4s(4F)5s	e ⁵ F	3	—	3d ² 4s(4F)5p	⁵ G ^o	3	0.04	91FOR
17 702.85	5647.266	66	3d ² (3F)4s4p(3P ^o)	z ³ F ^o	3	—	3d ³ (2F)4s	³ F	3	0.04	91FOR
17 703.78	5646.969	10	3d ² (1D)4s4p(3P ^o)	x ³ F ^o	3	—	3d ³ (2D1)4s	³ D	2	0.04	91FOR
17 714.270	5643.625	17	3d ² 4s4d	³ P	2	—	3d ² 4s(4F _{3/2})4f	[2.5] ^o	3	0.009	05LIT
17 729.57	5638.756	15	3d ² 4s(4F)5s	e ⁵ F	4	—	3d ² 4s(4F)5p	⁵ G ^o	4	0.04	91FOR
17 752.92	5631.339	8	3d ² 4s(4F)4d	e ⁵ P	1	—	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2	0.03	05LIT
17 758.304	5629.631	38	3d ² 4s(4F)4d	³ D	2	—	3d ² 4s(4F _{9/2})4f	[1.5] ^o	2	0.009	05LIT
17 773.736	5624.743	24	3d ² 4s(4F)4d	³ D	2	—	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	0.009	05LIT
17 783.61	5621.619	5	3d ² (1D)4s4p(3P ^o)	x ³ F ^o	3	—	3d ³ (2D1)4s	³ D	3	0.04	91FOR
17 801.93	5615.834	17	3d ² (3F)4s4p(3P ^o)	z ³ F ^o	3	—	3d ³ (2F)4s	³ F	4	0.04	91FOR
17 817.71	5610.861	8	3d ² 4s(4F)5s	e ⁵ F	5	—	3d ² 4s(4F)5p	⁵ G ^o	5	0.04	91FOR
17 836.587	5604.923	25	3d ³ (4F)4d	⁵ G	3	—	3d ³ (4F _{7/2})4f	[3.5] ^o	3	0.010	05LIT
17 849.772	5600.783	20	3d ³ (4F)4d	⁵ G	3	—	3d ³ (4F _{7/2})4f	[2.5] ^o	3	0.010	05LIT
17 865.204	5595.945	23	3d ² 4s(4F)4d	³ D	1	—	3d ² 4s(4F _{7/2})4f	[0.5] ^o	0	0.010	05LIT
17 866.254	5595.616	14	3d ³ (4F)4d	⁵ G	5	—	3d ³ (4F _{9/2})4f	[5.5] ^o	5	0.010	05LIT
17 877.929	5591.962	13	3d ³ (4F)4d	⁵ G	5	—	3d ³ (4F _{9/2})4f	[5.5] ^o	6	0.010	05LIT
17 889.244	5588.425	27	3d ² 4s(4F)4d	³ D	1	—	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2	0.010	05LIT
17 891.363	5587.763	38	3d ³ (4F)4d	⁵ G	5	—	3d ³ (4F _{9/2})4f	[6.5] ^o	6	0.010	05LIT
17 901.545	5584.585	24	3d ³ (4F)4d	⁵ G	5	—	3d ³ (4F _{9/2})4f	[4.5] ^o	5	0.010	05LIT
17 910.534	5581.782	31	3d ² 4s(4F)4d	³ D	1	—	3d ² 4s(4F _{7/2})4f	[1.5] ^o	1	0.010	05LIT
17 913.25	5580.937	58	3d ² (1G)4s4p(3P ^o)	v ³ F ^o	4	—	3d ³ (4F)5s	f ³ F	4	0.04	91FOR
17 931.950	5575.116	18	3d ³ (4F)4d	⁵ G	5	—	3d ³ (4F _{9/2})4f	[3.5] ^o	4	0.010	05LIT
17 972.89	5562.417	40	3d ² (1G)4s4p(3P ^o)	v ³ F ^o	3	—	3d ³ (4F)5s	f ³ F	3	0.04	91FOR
17 999.56	5554.175	9	3d ² 4s(4F)4d	e ⁵ P	3	—	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	0.03	05LIT
18 015.368	5549.301	159	3d ² 4s(4F)4d	e ⁵ P	3	—	3d ² 4s(4F _{9/2})4f	[2.5] ^o	2	0.010	05LIT
18 016.546	5548.938	108	3d ² 4s(4F)4d	e ⁵ P	3	—	3d ² 4s(4F _{9/2})4f	[3.5] ^o	3	0.010	05LIT
18 025.25	5546.260	30	3d ² (1G)4s4p(3P ^o)	v ³ F ^o	2	—	3d ³ (4F)5s	f ³ F	2	0.04	91FOR
18 026.998	5545.721	45	3d ² 4s(4F)4d	e ⁵ P	3	—	3d ² 4s(4F _{9/2})4f	[4.5] ^o	4	0.010	05LIT
18 031.650	5544.290	33	3d ³ (4F)4d	⁵ G	4	—	3d ³ (4F _{7/2})4f	[4.5] ^o	4	0.010	05LIT
18 037.656	5542.444	11	3d ³ (4F)4d	⁵ G	4	—	3d ³ (4F _{7/2})4f	[3.5] ^o	3	0.010	05LIT
18 040.110	5541.690	25	3d ³ (4F)4d	⁵ G	2	—	3d ³ (4F _{5/2})4f	[2.5] ^o	2	0.010	05LIT
18 041.93	5541.132	38	3d ² 4s(2F)5s	³ F	4	—	3d ³ (2F)4p	³ G ^o	5	0.04	91FOR
18 043.659	5540.600	46	3d ³ (4F)4d	⁵ G	4	—	3d ³ (4F _{7/2})4f	[4.5] ^o	5	0.010	05LIT
18 045.073	5540.166	27	3d ³ (4F)4d	⁵ G	2	—	3d ³ (4F _{5/2})4f	[2.5] ^o	3	0.010	05LIT
18 051.14	5538.304	6	3d ³ (4F)4d	⁵ G	4	—	3d ³ (4F _{7/2})4f	[2.5] ^o	3	0.03	05LIT
18 057.142	5536.463	38	3d ³ (4F)4d	⁵ G	4	—	3d ³ (4F _{7/2})4f	[3.5] ^o	4	0.010	05LIT
18 058.16	5536.151	10*	3d ² 4s(4F)4d	e ⁵ P	3	—	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	0.03	05LIT
18 058.16	5536.151	10*	3d ² 4s(4F)4d	g ⁵ F	3	—	3d ² 4s(2F)5p	³ G ^o	4	0.03	05LIT
18 066.321	5533.650	21	3d ³ (4F)4d	⁵ G	2	—	3d ³ (4F _{5/2})4f	[3.5] ^o	3	0.010	05LIT
18 074.87	5531.034	27	3d ² 4s(2F)5s	³ F	2	—	3d ³ (2F)4p	³ G ^o	3	0.04	91FOR
18 111.725	5519.778	40	3d ² 4s(4F)4d	e ⁵ P	2	—	3d ² 4s(4F _{7/2})4f	[0.5] ^o	1	0.010	05LIT
18 114.911	5518.807	11	3d ² 4s(4F)4d	e ⁵ P	2	—	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2	0.010	05LIT
18 120.914	5516.979	59	3d ² 4s(4F)4d	e ⁵ P	2	—	3d ² 4s(4F _{7/2})4f	[2.5] ^o	3	0.010	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
18 123.900	5516.070	83	3d ² 4s(4F)4d	e ⁵ P	2	–	3d ² 4s(4F _{7/2})4f	[2.5] ^o	2	0.010	05LIT
18 127.15	5515.080	10	3d ² 4s(4F)4d	e ⁵ P	2	–	3d ² 4s(4F _{7/2})4f	[3.5] ^o	3	0.03	05LIT
18 136.749	5512.162	41	3d ² 4s(4F)4d	e ⁵ P	2	–	3d ² 4s(4F _{7/2})4f	[1.5] ^o	1	0.010	05LIT
18 154.834	5506.671	89	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	0.010	05LIT
18 158.366	5505.600	12	3d ² 4s(4F)4d	e ⁵ P	1	–	3d ² 4s(4F _{5/2})4f	[0.5] ^o	0	0.010	05LIT
18 170.921	5501.796	46	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{9/2})4f	[2.5] ^o	2	0.010	05LIT
18 172.120	5501.433	37	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{9/2})4f	[3.5] ^o	3	0.010	05LIT
18 173.058	5501.149	54	3d ³ (4F)4d	⁵ G	3	–	3d ³ (4F _{5/2})4f	[4.5] ^o	4	0.010	05LIT
18 182.313	5498.349	71	3d ² 4s(4F)4d	e ⁵ P	1	–	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	0.010	05LIT
18 182.772	5498.210	57	3d ³ (4F)4d	⁵ G	3	–	3d ³ (4F _{5/2})4f	[3.5] ^o	4	0.010	05LIT
18 191.040	5495.711	29	3d ² 4s(4F)4d	e ⁵ P	1	–	3d ² 4s(4F _{5/2})4f	[1.5] ^o	1	0.010	05LIT
18 193.84	5494.866	9	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ³ (² F)4s	³ F	3	0.04	91FOR
18 198.249	5493.534	55	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{9/2})4f	[1.5] ^o	2	0.010	05LIT
18 212.511	5489.232	35	3d ³ (4F)4d	⁵ G	3	–	3d ³ (4F _{5/2})4f	[3.5] ^o	3	0.010	05LIT
18 213.61	5488.902	14	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	–	3d ³ (² D1)4s	³ D	3	0.04	91FOR
18 214.453	5488.647	93	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	0.010	05LIT
18 224.148	5485.727	22	3d ³ (4F)4d	⁵ G	6	–	3d ³ (4F _{9/2})4f	[5.5] ^o	6	0.010	05LIT
18 238.108	5481.528	104	3d ³ (4F)4d	⁵ G	6	–	3d ³ (4F _{9/2})4f	[6.5] ^o	6	0.010	05LIT
18 246.270	5479.076	279	3d ³ (4F)4d	⁵ G	6	–	3d ³ (4F _{9/2})4f	[6.5] ^o	7	0.010	05LIT
18 248.688	5478.350	24	3d ³ (4F)4d	⁵ G	6	–	3d ³ (4F _{9/2})4f	[4.5] ^o	5	0.010	05LIT
18 260.62	5474.770	23	3d ³ (4F)5s	f ³ F	2	–	3d ³ (4F)5p	³ G ^o	3	0.04	91FOR
18 267.808	5472.616	27	3d ² 4s(4F)4d	³ D	2	–	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2	0.010	05LIT
18 279.653	5469.070	126	3d ³ (4F)4d	⁵ G	2	–	3d ³ (4F _{3/2})4f	[3.5] ^o	3	0.010	05LIT
18 279.91	5468.994	22	3d ² 4s(² F)5s	³ F	3	–	3d ³ (² F)4p	³ G ^o	4	0.04	91FOR
18 282.10	5468.339	1	3d ³ (4P)4s	a ⁵ P	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.04	91FOR
18 290.007	5465.974	21	3d ² 4s(4F)4d	³ D	2	–	3d ² 4s(4F _{7/2})4f	[1.5] ^o	1	0.010	05LIT
18 298.50	5463.438	99	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	–	3d ³ (² F)4s	³ F	4	0.04	91FOR
18 301.02	5462.686	8	3d ² 4s(4F)4d	³ D	1	–	3d ² 4s(4F _{5/2})4f	[0.5] ^o	0	0.03	05LIT
18 302.72	5462.177	22	3d ² (³ F)4s4p(³ P ^o)	w ³ D ^o	1	–	3d ⁴	³ F2	2	0.04	91FOR
18 317.463	5457.781	54	3d ³ (4F)4d	⁵ G	5	–	3d ³ (4F _{7/2})4f	[4.5] ^o	5	0.010	05LIT
18 319.124	5457.286	192	3d ³ (4F)4d	⁵ G	5	–	3d ³ (4F _{7/2})4f	[5.5] ^o	6	0.010	05LIT
18 321.12	5456.693	25	3d ³ (4F)5s	f ³ F	3	–	3d ³ (4F)5p	³ G ^o	4	0.04	91FOR
18 325.337	5455.436	28	3d ² 4s(4F)4d	³ D	1	–	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	0.010	05LIT
18 331.36	5453.642	8	3d ³ (4F)4d	⁵ G	5	–	3d ³ (4F _{7/2})4f	[3.5] ^o	4	0.03	05LIT
18 334.206	5452.797	20	3d ² 4s(4F)4d	³ D	1	–	3d ² 4s(4F _{5/2})4f	[1.5] ^o	1	0.010	05LIT
18 349.30	5448.311	6	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	–	3d ³ (¹ G)5s	f ³ F	2	0.04	91FOR
18 353.63	5447.027	6	3d ⁴	³ F1	3	–	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	0.03	05LIT
18 381.84	5438.667	6	3d ³ (4F)4d	⁵ G	4	–	3d ³ (4F _{5/2})4f	[4.5] ^o	4	0.03	05LIT
18 382.157	5438.573	51	3d ⁴	³ F1	3	–	3d ² 4s(4F _{9/2})4f	[4.5] ^o	4	0.010	05LIT
18 391.774	5435.729	25	3d ³ (4F)4d	⁵ G	4	–	3d ³ (4F _{5/2})4f	[3.5] ^o	4	0.010	05LIT
18 398.01	5433.888	8	3d ⁴	³ F1	3	–	3d ² 4s(4F _{9/2})4f	[1.5] ^o	2	0.03	05LIT
18 400.098	5433.270	25	3d ³ (4F)4d	⁵ G	4	–	3d ³ (4F _{5/2})4f	[2.5] ^o	3	0.010	05LIT
18 408.38	5430.827	58	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	–	3d ⁴	³ H	4	0.04	91FOR
18 410.05	5430.333	120	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	–	3d ⁴	³ H	6	0.04	91FOR
18 414.07	5429.148	86	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	–	3d ⁴	³ H	5	0.04	91FOR
18 425.86	5425.673	42	3d ³ (4F)5s	f ³ F	4	–	3d ³ (4F)5p	³ G ^o	5	0.04	91FOR
18 433.30	5423.485	10	3d ⁴	b ³ G	5	–	3d4s ² 4p	s ³ F ^o	4	0.04	91FOR
18 453.064	5417.675	17	3d ³ (4F)4d	⁵ G	3	–	3d ³ (4F _{3/2})4f	[2.5] ^o	3	0.010	05LIT
18 455.41	5416.986	12	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	–	3d ³ (² F)4s	¹ F	3	0.04	91FOR
18 461.17	5415.296	4	3d ² 4s(4F)5s	e ⁵ F	4	–	3d4s ² 4p	s ³ F ^o	4	0.04	91FOR
18 493.50	5405.830	30	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	–	3d ⁴	³ F2	3	0.04	91FOR
18 500.797	5403.697	59	3d ² 4s(4F)4d	e ⁵ P	1	–	3d ² 4s(4F _{3/2})4f	[1.5] ^o	2	0.010	05LIT
18 505.735	5402.255	14	3d ³ (4F)4d	f ⁵ H	5	–	3d ³ (4F _{9/2})4f	[5.5] ^o	6	0.010	05LIT
18 508.014	5401.590	30	3d ² 4s(4F)4d	e ⁵ P	1	–	3d ² 4s(4F _{3/2})4f	[1.5] ^o	1	0.010	05LIT
18 513.69	5399.934	11	3d ³ (4F)5s	f ³ F	3	–	3d ³ (4F)5p	³ F ^o	4	0.04	91FOR
18 516.419	5399.138	22	3d ² 4s(4F)4d	e ⁵ P	1	–	3d ² 4s(4F _{3/2})4f	[2.5] ^o	2	0.010	05LIT
18 520.158	5398.048	23	3d ³ (4F)4d	f ⁵ H	5	–	3d ³ (4F _{9/2})4f	[6.5] ^o	6	0.010	05LIT
18 526.98	5396.061	8	3d ³ (4F)5s	f ³ F	2	–	3d ³ (4F)5p	³ F ^o	3	0.04	91FOR
18 537.01	5393.140	13	3d ³ (4P)4s	a ⁵ P	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.04	91FOR
18 550.196	5389.307	19	3d ³ (4F)4d	⁵ F	3	–	3d ³ (4F _{9/2})4f	[3.5] ^o	3	0.010	05LIT
18 553.42	5388.372	7	3d ² 4s(4F)4d	g ⁵ F	1	–	3d ² 4s(4F _{9/2})4f	[1.5] ^o	1	0.03	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
18 562.206	5385.820	21	3d ² 4s(4F)4d	e ⁵ P	2	–	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	0.010	05LIT
18 563.00	5385.590	6	3d ³ (4P)4p	x ³ P ^o	1	–	3d ⁴	³ D	2	0.04	91FOR
18 568.38	5384.029	5	3d ² 4s(4F)4d	e ⁵ P	3	–	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2	0.03	05LIT
18 577.829	5381.291	32	3d ² 4s(4F)4d	e ⁵ P	3	–	3d ² 4s(4F _{7/2})4f	[2.5] ^o	2	0.010	05LIT
18 578.167	5381.193	42	3d ² 4s(4F)4d	e ⁵ P	2	–	3d ² 4s(4F _{5/2})4f	[2.5] ^o	3	0.010	05LIT
18 581.254	5380.299	40	3d ² 4s(4F)4d	e ⁵ P	3	–	3d ² 4s(4F _{7/2})4f	[3.5] ^o	3	0.010	05LIT
18 601.41	5374.470	5	3d ² (1G)4s4p(3P ^o)	x ³ G ^o	4	–	3d ⁴	³ H	4	0.04	91FOR
18 608.158	5372.520	46	3d ² 4s(4F)4d	e ⁵ P	3	–	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	0.010	05LIT
18 633.334	5365.261	13	3d ³ (4F)4d	⁵ G	4	–	3d ³ (4F _{3/2})4f	[3.5] ^o	4	0.010	05LIT
18 643.99	5362.194	10	3d ³ (4P)4p	x ³ P ^o	2	–	3d ⁴	³ D	3	0.04	91FOR
18 647.87	5361.080	6*	3d ² 4s(4F)5s	e ⁵ F	3	–	3d4s ² 4p	s ³ F ^o	3	0.04	91FOR
18 647.87	5361.080	6*	3d ² (1G)4s4p(3P ^o)	x ³ G ^o	5	–	3d ⁴	³ H	5	0.04	91FOR
18 648.899	5360.783	35	3d ² 4s(4F)4d	³ D	1	–	3d ² 4s(4F _{3/2})4f	[1.5] ^o	2	0.010	05LIT
18 649.35	5360.654	8	3d ³ (4F)5s	f ³ F	3	–	3d ³ (4F)5p	³ G ^o	3	0.04	91FOR
18 653.18	5359.552	8	3d ³ (2F)4s	¹ F	3	–	3d ² (1D)4s4p(1P ^o)	y ¹ F ^o	3	0.04	91FOR
18 662.88	5356.767	4	3d ² 4s(2F)5s	³ F	4	–	3d ³ (2F)4p	³ G ^o	4	0.04	91FOR
18 664.797	5356.217	17	3d ² 4s(4F)4d	³ D	1	–	3d ² 4s(4F _{3/2})4f	[2.5] ^o	2	0.010	05LIT
18 666.041	5355.860	72*	3d ³ (4F)4d	⁵ G	6	–	3d ³ (4F _{7/2})4f	[5.5] ^o	5	0.010	05LIT
18 666.041	5355.860	72*	3d ³ (4F)4d	⁵ G	5	–	3d ³ (4F _{5/2})4f	[4.5] ^o	4	0.010	05LIT
18 669.210	5354.951	24	3d ³ (4F)4d	⁵ G	5	–	3d ³ (4F _{5/2})4f	[4.5] ^o	5	0.010	05LIT
18 669.92	5354.747	6	3d ² (2F)4s4p(1P ^o)	w ³ D ^o	2	–	3d ⁴	³ F ₂	2	0.04	91FOR
18 682.820	5351.050	24	3d ³ (4F)4d	⁵ G	6	–	3d ³ (4F _{7/2})4f	[5.5] ^o	6	0.010	05LIT
18 694.845	5347.608	129	3d ³ (4F)4d	⁵ G	5	–	3d ³ (4F _{5/2})4f	[5.5] ^o	6	0.010	05LIT
18 713.084	5342.396	128	3d ³ (4F)4d	⁵ G	6	–	3d ³ (4F _{7/2})4f	[6.5] ^o	6	0.011	05LIT
18 715.679	5341.655	34	3d ³ (4F)4d	f ⁵ H	4	–	3d ³ (4F _{7/2})4f	[4.5] ^o	4	0.011	05LIT
18 722.153	5339.808	19	3d ³ (4F)4d	f ⁵ H	4	–	3d ³ (4F _{7/2})4f	[3.5] ^o	3	0.011	05LIT
18 728.61	5337.968	8	3d ³ (4F)4d	f ⁵ H	4	–	3d ³ (4F _{7/2})4f	[4.5] ^o	5	0.04	05LIT
18 728.94	5337.872	6	3d ³ (2D1)4s	³ D	3	–	3d ³ (2D2)4p	u ³ F ^o	4	0.04	91FOR
18 730.744	5337.359	20	3d ³ (4F)4d	⁵ F	4	–	3d ³ (4F _{9/2})4f	[5.5] ^o	5	0.011	05LIT
18 733.68	5336.522	7	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{7/2})4f	[1.5] ^o	2	0.04	05LIT
18 740.136	5334.684	24	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{7/2})4f	[2.5] ^o	3	0.011	05LIT
18 743.15	5333.827	7	3d ³ (4F)4d	f ⁵ H	4	–	3d ³ (4F _{7/2})4f	[3.5] ^o	4	0.04	05LIT
18 756.50	5330.029	10	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{7/2})4f	[4.5] ^o	4	0.04	05LIT
18 756.90	5329.917	30	3d ² (3F)4s4p(1P ^o)	w ³ D ^o	3	–	3d ⁴	³ F ₂	4	0.04	91FOR
18 757.576	5329.724	46	3d ² 4s(4F)4d	³ D	2	–	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	0.011	05LIT
18 761.152	5328.708	29	3d ³ (4F)4d	⁵ F	4	–	3d ³ (4F _{9/2})4f	[4.5] ^o	4	0.011	05LIT
18 765.702	5327.416	23*	3d ² 4s(4F)4d	³ D	2	–	3d ² 4s(4F _{5/2})4f	[2.5] ^o	2	0.011	05LIT
18 765.702	5327.416	23*	3d ³ (4F)4d	⁵ F	2	–	3d ³ (4F _{7/2})4f	[3.5] ^o	3	0.011	05LIT
18 769.532	5326.329	34	3d ³ (4F)4d	⁵ F	4	–	3d ³ (4F _{9/2})4f	[4.5] ^o	5	0.011	05LIT
18 772.93	5325.364	8	3d ⁴	b ³ G	4	–	3d4s ² 4p	s ³ F ^o	3	0.04	91FOR
18 774.17	5325.013	8	3d ² 4s(4F)4d	³ D	3	–	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	0.04	05LIT
18 780.297	5323.276	25	3d ³ (4F)4d	⁵ F	2	–	3d ³ (4F _{7/2})4f	[2.5] ^o	3	0.011	05LIT
18 795.932	5318.848	4*	3d ³ (4F)4d	⁵ F	4	–	3d ³ (4F _{9/2})4f	[3.5] ^o	3	0.011	05LIT
18 795.932	5318.848	4*	3d ² 4s(4F)4d	g ⁵ F	2	–	3d ² 4s(4F _{9/2})4f	[1.5] ^o	2	0.011	05LIT
18 797.996	5318.264	60	3d ³ (4F)4d	f ⁵ H	6	–	3d ³ (4F _{9/2})4f	[6.5] ^o	6	0.011	05LIT
18 802.995	5316.850	49	3d ³ (4F)4d	⁵ F	4	–	3d ³ (4F _{9/2})4f	[3.5] ^o	4	0.011	05LIT
18 806.19	5315.946	8	3d ³ (4P)4s	a ⁵ P	3	–	3d ² (3F)4s4p(3P ^o)	z ³ F ^o	3	0.04	91FOR
18 806.666	5315.812	50	3d ³ (4F)4d	f ⁵ H	6	–	3d ³ (4F _{9/2})4f	[6.5] ^o	7	0.011	05LIT
18 809.24	5315.086	10	3d ³ (4F)4d	f ⁵ H	6	–	3d ³ (4F _{9/2})4f	[4.5] ^o	5	0.04	05LIT
18 829.340	5309.411	96	3d ³ (4F)4d	f ⁵ H	6	–	3d ³ (4F _{9/2})4f	[7.5] ^o	7	0.011	05LIT
18 835.30	5307.731	24	3d ³ (4F)5s	f ³ F	2	–	3d ³ (4F)5p	³ F ^o	2	0.04	91FOR
18 882.18	5294.553	4	3d ³ (4P)4s	a ⁵ P	2	–	3d ² (3F)4s4p(3P ^o)	z ³ F ^o	2	0.04	91FOR
18 884.331	5293.950	40	3d ³ (4F)4d	f ⁵ H	3	–	3d ³ (4F _{5/2})4f	[4.5] ^o	4	0.011	05LIT
18 903.63	5288.546	7	3d ³ (4F)4d	f ⁵ H	3	–	3d ³ (4F _{5/2})4f	[2.5] ^o	3	0.04	05LIT
18 911.26	5286.411	9	3d ² 4s(4F)4d	e ⁵ P	2	–	3d ² 4s(4F _{3/2})4f	[2.5] ^o	3	0.04	05LIT
18 914.88	5285.400	1	3d ³ (4F)4s	b ³ F	2	–	3d ² (3F)4s4p(3P ^o)	z ⁵ F ^o	1	0.04	91FOR
18 927.21	5281.956	27	3d ³ (4F)5s	f ³ F	3	–	3d ³ (4F)5p	³ F ^o	3	0.04	91FOR
18 951.58	5275.164	6	3d ³ (4F)5s	f ⁵ F	4	–	3d ³ (4F)5p	⁵ D ^o	4	0.04	91FOR
18 961.57	5272.386	8	3d ³ (4F)4d	f ⁵ H	5	–	3d ³ (4F _{7/2})4f	[5.5] ^o	5	0.04	05LIT
18 961.91	5272.292	7	3d ⁴	b ³ G	3	–	3d4s ² 4p	s ³ F ^o	2	0.04	91FOR
18 963.60	5271.820	8	3d ³ (4F)4d	⁵ F	3	–	3d ³ (4F _{7/2})4f	[3.5] ^o	3	0.04	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
18 963.82	5271.760	9	3d ³ (⁴ F)4d	f ⁵ H	5	–	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	4	0.04	05LIT
18 977.092	5268.073	54	3d ³ (⁴ F)4d	f ⁵ H	5	–	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	5	0.011	05LIT
18 978.518	5267.677	23	3d ³ (⁴ F)4d	⁵ F	3	–	3d ³ (⁴ F _{7/2})4f	[2.5] ^o	3	0.011	05LIT
18 978.882	5267.576	49	3d ³ (⁴ F)4d	f ⁵ H	5	–	3d ³ (⁴ F _{7/2})4f	[5.5] ^o	6	0.011	05LIT
18 985.161	5265.834	51	3d ³ (⁴ F)4d	⁵ F	3	–	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	4	0.011	05LIT
18 992.01	5263.935	10	3d ³ (⁴ F)4d	f ⁵ H	5	–	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	4	0.04	05LIT
18 998.18	5262.225	6	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	–	3d ⁴	³ F2	3	0.04	91FOR
19 006.669	5259.875	17	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{9/2})4f	[2.5] ^o	2	0.011	05LIT
19 007.98	5259.512	9	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.04	05LIT
19 009.89	5258.985	9	3d ³ (⁴ F)5s	f ⁵ F	3	–	3d ³ (⁴ F)5p	⁵ D ^o	3	0.04	91FOR
19 010.153	5258.911	42	3d ³ (⁴ F)4d	f ⁵ H	5	–	3d ³ (⁴ F _{7/2})4f	[6.5] ^o	6	0.011	05LIT
19 012.362	5258.300	39	3d ³ (⁴ F)4d	⁵ F	1	–	3d ³ (⁴ F _{5/2})4f	[2.5] ^o	2	0.011	05LIT
19 019.625	5256.292	14	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.011	05LIT
19 024.17	5255.035	33	3d ³ (⁴ F)5s	f ³ F	4	–	3d ³ (⁴ F)5p	³ F ^o	4	0.04	91FOR
19 036.575	5251.612	12	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{9/2})4f	[1.5] ^o	2	0.011	05LIT
19 038.870	5250.979	24	3d ³ (⁴ F)4d	⁵ F	1	–	3d ³ (⁴ F _{5/2})4f	[1.5] ^o	1	0.011	05LIT
19 039.457	5250.817	30	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{9/2})4f	[5.5] ^o	6	0.011	05LIT
19 054.295	5246.728	20	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{9/2})4f	[2.5] ^o	3	0.011	05LIT
19 054.698	5246.617	173	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{9/2})4f	[6.5] ^o	6	0.011	05LIT
19 066.247	5243.439	177	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{9/2})4f	[4.5] ^o	5	0.011	05LIT
19 075.20	5240.977	9	3d ² 4s(⁴ F)4d	e ⁵ P	3	–	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	4	0.04	05LIT
19 077.949	5240.223	14	3d ² 4s(⁴ F)4d	³ D	2	–	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	3	0.011	05LIT
19 078.62	5240.039	10	3d ³ (⁴ F)5s	f ⁵ F	2	–	3d ³ (⁴ F)5p	⁵ D ^o	2	0.04	91FOR
19 093.215	5236.033	17	3d ³ (⁴ F)4d	f ⁵ H	4	–	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	4	0.011	05LIT
19 095.85	5235.310	6	3d ³ (⁴ F)4s	b ³ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	2	0.04	91FOR
19 096.498	5235.133	33	3d ³ (⁴ F)4d	f ⁵ H	4	–	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	5	0.011	05LIT
19 097.20	5234.941	8	3d ³ (⁴ F)4d	f ⁵ H	7	–	3d ³ (⁴ F _{9/2})4f	[6.5] ^o	6	0.04	05LIT
19 100.777	5233.960	58	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{9/2})4f	[3.5] ^o	4	0.011	05LIT
19 103.942	5233.093	30	3d ³ (⁴ F)4d	f ⁵ H	4	–	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	4	0.011	05LIT
19 106.140	5232.491	70	3d ³ (⁴ F)4d	f ⁵ H	7	–	3d ³ (⁴ F _{9/2})4f	[6.5] ^o	7	0.011	05LIT
19 116.808	5229.571	16	3d ⁴	³ F1	4	–	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	3	0.011	05LIT
19 129.55	5226.088	9	3d ³ (⁴ F)4d	f ⁵ H	7	–	3d ³ (⁴ F _{9/2})4f	[7.5] ^o	7	0.04	05LIT
19 135.62	5224.430	8	3d ³ (⁴ F)5s	f ⁵ F	1	–	3d ³ (⁴ F)5p	⁵ D ^o	1	0.04	91FOR
19 136.77	5224.117	4	3d ³ (⁴ F)4d	f ⁵ H	4	–	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	3	0.04	05LIT
19 149.87	5220.543	8	3d ³ (⁴ F)4d	f ⁵ H	3	–	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	4	0.04	05LIT
19 161.223	5217.449	23	3d ³ (⁴ F)4d	f ⁵ H	3	–	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	3	0.011	05LIT
19 179.600	5212.450	12	3d ³ (⁴ F)4d	⁵ F	2	–	3d ³ (⁴ F _{5/2})4f	[1.5] ^o	1	0.011	05LIT
19 182.268	5211.725	43	3d ³ (⁴ F)4d	⁵ F	2	–	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	3	0.011	05LIT
19 193.42	5208.696	1	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	–	3d ⁴	³ F2	2	0.04	91FOR
19 197.632	5207.554	193	3d ³ (⁴ F)4d	f ⁵ H	7	–	3d ³ (⁴ F _{9/2})4f	[7.5] ^o	8	0.011	05LIT
19 210.49	5204.068	5	3d ³ (² D1)4s	³ D	2	–	3d ³ (² D2)4p	u ³ F ^o	3	0.04	91FOR
19 212.89	5203.418	1	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	–	3d ⁴	³ F2	3	0.04	91FOR
19 213.645	5203.214	17	3d ³ (⁴ F)4d	⁵ F	4	–	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	4	0.011	05LIT
19 214.28	5203.041	7	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	–	3d ⁴	³ F2	4	0.04	91FOR
19 216.77	5202.369	6	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	1	–	3d ³ (² D1)4s	³ D	1	0.04	91FOR
19 217.353	5202.210	7	3d ³ (⁴ F)4d	f ⁵ H	3	–	3d ³ (⁴ F _{3/2})4f	[4.5] ^o	4	0.011	05LIT
19 220.47	5201.366	8	3d ³ (⁴ F)4d	⁵ F	4	–	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	3	0.04	05LIT
19 227.280	5199.524	76	3d ³ (⁴ F)4d	⁵ F	4	–	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	5	0.011	05LIT
19 242.591	5195.387	50	3d ³ (⁴ F)4d	⁵ F	4	–	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	4	0.011	05LIT
19 244.03	5194.999	10	3d ³ (⁴ F)5s	f ⁵ F	1	–	3d ³ (⁴ F)5p	⁵ D ^o	0	0.04	91FOR
19 249.134	5193.621	40*	3d ² 4s(⁴ F)4d	³ D	3	–	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.011	05LIT
19 249.134	5193.621	40*	3d ³ (⁴ F)5s	f ³ F	3	–	3d ³ (⁴ F)5p	³ F ^o	2	0.011	05LIT
19 249.67	5193.475	5	3d ² 4s(⁴ F)4d	³ D	3	–	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	4	0.04	05LIT
19 255.967	5191.778	11	3d ² 4s(⁴ F)4d	³ D	3	–	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	4	0.011	05LIT
19 270.784	5187.786	42	3d ³ (⁴ F)4d	f ⁵ H	6	–	3d ³ (⁴ F _{7/2})4f	[5.5] ^o	6	0.011	05LIT
19 282.54	5184.623	1	3d ³ (⁴ F)4s	b ³ F	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ F ^o	3	0.04	91FOR
19 291.51	5182.213	19	3d ³ (⁴ F)5s	f ⁵ F	2	–	3d ³ (⁴ F)5p	⁵ D ^o	1	0.04	91FOR
19 296.204	5180.952	12	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	4	0.011	05LIT
19 302.985	5179.132	234	3d ³ (⁴ F)4d	f ⁵ H	6	–	3d ³ (⁴ F _{7/2})4f	[6.5] ^o	6	0.011	05LIT
19 315.728	5175.715	66	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	3	0.011	05LIT
19 318.57	5174.954	33	3d ³ (⁴ F)5s	f ⁵ F	3	–	3d ³ (⁴ F)5p	⁵ D ^o	2	0.04	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
19319.32	5174.753	7	3d ³ (⁴ F)5s	f ⁵ F	4	–	3d ³ (⁴ F)5p	⁵ F ^o	5	0.04	91FOR
19327.745	5172.497	73	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.011	05LIT
19333.91	5170.848	49	3d ³ (⁴ F)5s	f ⁵ F	4	–	3d ³ (⁴ F)5p	⁵ D ^o	3	0.04	91FOR
19344.403	5168.043	30	3d ³ (⁴ F)4d	⁵ F	3	–	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	4	0.011	05LIT
19352.806	5165.799	65	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.011	05LIT
19354.893	5165.242	25	3d ³ (⁴ F)4d	f ⁵ H	5	–	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	5	0.011	05LIT
19355.418	5165.102	28	3d ³ (⁴ F)4d	⁵ F	3	–	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	4	0.011	05LIT
19356.49	5164.817	66	3d ³ (⁴ F)5s	f ⁵ F	5	–	3d ³ (⁴ F)5p	⁵ D ^o	4	0.04	91FOR
19364.044	5162.801	29	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{7/2})4f	[0.5] ^o	1	0.011	05LIT
19364.667	5162.635	24	3d ³ (⁴ F)4d	f ⁵ H	4	–	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	4	0.011	05LIT
19367.694	5161.828	43	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{7/2})4f	[1.5] ^o	2	0.011	05LIT
19374.54	5160.005	9	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	3	0.04	05LIT
19377.98	5159.087	5	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	2	0.04	05LIT
19382.447	5157.899	150	3d ³ (⁴ F)4d	f ⁵ H	5	–	3d ³ (⁴ F _{5/2})4f	[5.5] ^o	6	0.011	05LIT
19392.97	5155.100	75	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	–	3d ³ (² F)4s	³ F	2	0.05	91FOR
19404.957	5151.916	31	3d ³ 4d	⁵ P	2	–	3d ³ (⁴ F _{5/2})4f	[2.5] ^o	3	0.011	05LIT
19422.955	5147.142	22	3d ³ (⁴ F)4d	⁵ F	2	–	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	3	0.011	05LIT
19426.81	5146.121	7	3d ³ 4d	⁵ P	2	–	3d ³ (⁴ F _{5/2})4f	[1.5] ^o	1	0.04	05LIT
19429.54	5145.398	8	3d ³ 4d	⁵ P	2	–	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	3	0.04	05LIT
19434.682	5144.036	99	3d ³ (⁴ F)4d	f ⁵ H	4	–	3d ³ (⁴ F _{3/2})4f	[4.5] ^o	5	0.011	05LIT
19449.311	5140.167	49	3d ³ (⁴ F)4d	⁵ F	2	–	3d ³ (⁴ F _{3/2})4f	[2.5] ^o	3	0.011	05LIT
19469.06	5134.952	11	3d ³ (⁴ F)5s	f ⁵ F	2	–	3d ³ (⁴ F)5p	⁵ F ^o	3	0.05	91FOR
19507.292	5124.889	27	3d ³ 4d	⁵ P	3	–	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	4	0.011	05LIT
19518.79	5121.871	6	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	2	–	3d ³ (² D)4s	³ D	2	0.05	91FOR
19538.761	5116.635	25	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{7/2})4f	[4.5] ^o	5	0.011	05LIT
19540.651	5116.140	41	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{7/2})4f	[5.5] ^o	6	0.011	05LIT
19554.60	5112.491	5	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	4	0.04	05LIT
19615.207	5096.694	52	3d ³ (⁴ F)4d	⁵ F	4	–	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	5	0.012	05LIT
19623.127	5094.637	53	3d ³ (⁴ F)4d	⁵ F	3	–	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	4	0.012	05LIT
19627.73	5093.442	190	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	–	3d ³ (² F)4s	¹ F	3	0.05	91FOR
19633.817	5091.863	35	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	2	0.012	05LIT
19637.639	5090.872	74	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	3	0.012	05LIT
19652.90	5086.920	18	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	–	3d ³ (² F)4s	³ F	2	0.05	91FOR
19661.994	5084.566	11	3d ³ (⁴ F)4d	⁵ F	3	–	3d ³ (⁴ F _{3/2})4f	[2.5] ^o	3	0.012	05LIT
19667.684	5083.095	67	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.012	05LIT
19668.299	5082.936	56	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	4	0.012	05LIT
19675.914	5080.969	40	3d ² 4s(⁴ F)4d	g ⁵ F	1	–	3d ² 4s(⁴ F _{5/2})4f	[0.5] ^o	1	0.012	05LIT
19694.03	5076.294	4	3d ³ (⁴ F)4d	⁵ F	3	–	3d ³ (⁴ F _{3/2})4f	[4.5] ^o	4	0.04	05LIT
19695.84	5075.829	18	3d ³ (⁴ F)5s	f ⁵ F	1	–	3d ³ (⁴ F)5p	⁵ F ^o	1	0.05	91FOR
19701.059	5074.484	25	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	4	0.012	05LIT
19701.396	5074.397	139	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	5	0.012	05LIT
19703.552	5073.842	31	3d ³ 4d	⁵ P	2	–	3d ³ (⁴ F _{3/2})4f	[2.5] ^o	3	0.012	05LIT
19706.29	5073.138	24	3d ³ (⁴ F)5s	f ⁵ F	2	–	3d ³ (⁴ F)5p	⁵ F ^o	2	0.05	91FOR
19717.145	5070.344	18	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{9/2})4f	[6.5] ^o	6	0.012	05LIT
19719.00	5069.867	34	3d ³ (⁴ F)5s	f ⁵ F	3	–	3d ³ (⁴ F)5p	⁵ F ^o	3	0.05	91FOR
19727.117	5067.781	91	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{9/2})4f	[4.5] ^o	5	0.012	05LIT
19730.55	5066.898	50	3d ³ (⁴ F)5s	f ⁵ F	4	–	3d ³ (⁴ F)5p	⁵ F ^o	4	0.05	91FOR
19740.25	5064.409	68	3d ³ (⁴ F)5s	f ⁵ F	5	–	3d ³ (⁴ F)5p	⁵ F ^o	5	0.05	91FOR
19743.179	5063.658	46	3d ² 4s(⁴ F)4d	g ⁵ F	1	–	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	2	0.012	05LIT
19746.51	5062.805	100	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	–	3d ³ (² F)4s	³ F	3	0.05	91FOR
19752.213	5061.342	224	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{9/2})4f	[5.5] ^o	6	0.012	05LIT
19857.53	5034.498	8	3d ² (¹ D)4s4p(³ P ^o)	x ³ D ^o	3	–	3d ³ (² D)4s	³ D	3	0.05	91FOR
19859.72	5033.944	5	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{5/2})4f	[0.5] ^o	1	0.04	05LIT
19860.98	5033.625	8	3d ³ (⁴ F)5s	f ⁵ F	2	–	3d ³ (⁴ F)5p	⁵ F ^o	1	0.05	91FOR
19882.94	5028.064	8	3d ³ (² H)4p	y ¹ H ^o	5	–	3d ² 4s(² F)4d	e ¹ G	4	0.05	91FOR
19890.297	5026.205	24	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{5/2})4f	[1.5] ^o	1	0.012	05LIT
19898.412	5024.155	13	3d ³ 4d	⁵ P	3	–	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	4	0.012	05LIT
19908.16	5021.694	6	3d ³ 4d	⁵ P	3	–	3d ³ (⁴ F _{5/2})4f	[2.5] ^o	3	0.04	05LIT
19919.100	5018.937	53	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	3	0.012	05LIT
19922.95	5017.966	11	3d ³ (² G)4s	a ³ G	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.05	91FOR
19928.276	5016.626	24	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	2	0.012	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
19934.02	5015.180	5	3d ³ 4d	⁵ P	3	–	3d ³ (⁴ F _{5/2})4f	[3.5] ^o	3	0.04	05LIT
19939.48	5013.807	5	3d ³ (⁴ F)4d	⁵ F	5	–	3d ³ (⁴ F _{5/2})4f	[4.5] ^o	5	0.04	05LIT
19958.720	5008.974	11	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{7/2})4f	[2.5] ^o	3	0.012	05LIT
19962.33	5008.069	8	3d ³ (⁴ F)5s	f ⁵ F	3	–	3d ³ (⁴ F)5p	⁵ F ^o	2	0.05	91FOR
19966.31	5007.071	6	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	3	0.04	05LIT
19971.20	5005.843	8	3d ³ (⁴ F)4d	⁵ F	4	–	3d ³ (⁴ F _{3/2})4f	[4.5] ^o	4	0.04	05LIT
19972.16	5005.602	10	3d ³ (⁴ F)4d	⁵ F	4	–	3d ³ (⁴ F _{3/2})4f	[4.5] ^o	5	0.04	05LIT
19977.381	5004.295	44	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	4	0.012	05LIT
19987.50	5001.762	46	3d ³ (² F)4s	³ F	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	5	0.05	91FOR
19992.087	5000.614	27	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	5	0.012	05LIT
Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J		Configuration	Term	J		
20002.812	4999.297	36	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.012	05LIT
20026.768	4993.317	61	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.012	05LIT
20073.37	4981.724	7	3d ³ (⁴ F)5s	f ⁵ F	4	–	3d ³ (⁴ F)5p	⁵ F ^o	3	0.05	91FOR
20093.838	4976.650	76	3d ² 4s(⁴ F)4d	g ⁵ F	1	–	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	2	0.012	05LIT
20123.71	4969.262	13	3d ³ (² G)4s	a ³ G	4	–	3d ² (² F)4s4p(³ P ^o)	z ³ D ^o	3	0.05	91FOR
20173.545	4956.987	25	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{5/2})4f	[2.5] ^o	3	0.012	05LIT
20175.30	4956.557	5	3d ³ (⁴ F)5s	f ⁵ F	5	–	3d ³ (⁴ F)5p	⁵ F ^o	4	0.05	91FOR
20202.628	4949.851	57	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	4	0.012	05LIT
20231.50	4942.788	17	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	–	3d ³ (² F)4s	³ F	3	0.05	91FOR
20266.77	4934.185	6	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{3/2})4f	[1.5] ^o	2	0.04	05LIT
20268.87	4933.674	1	3d ³ (² F)4s	³ F	4	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.05	91FOR
20285.30	4929.678	1	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	–	3d ² 4s(⁴ F)4d	³ D	3	0.05	91FOR
20286.309	4929.433	12	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	3	0.012	05LIT
20337.468	4917.033	58	3d ² 4s(⁴ F)4d	g ⁵ F	2	–	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	3	0.012	05LIT
20360.98	4911.355	120	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	–	3d ³ (² F)4s	³ F	4	0.05	91FOR
20398.82	4902.244	33	3d ³ (² F)4s	³ F	3	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	4	0.05	91FOR
20402.81	4901.286	5	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.04	05LIT
20416.81	4897.924	7*	3d ³ (² G)4s	a ³ G	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.05	91FOR
20416.81	4897.924	7*	3d ³ (² H)4p	³ G ^o	3	–	3d ² 4s(² F)4d	e ¹ G	4	0.05	91FOR
20423.506	4896.319	62	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{7/2})4f	[5.5] ^o	6	0.013	05LIT
20427.753	4895.301	21	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{7/2})4f	[4.5] ^o	5	0.013	05LIT
20513.35	4874.873	1	3d ³ (² F)4s	³ F	4	–	3d ² (² F)4s4p(¹ P ^o)	w ³ D ^o	3	0.05	91FOR
20543.35	4867.756	8	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{5/2})4f	[3.5] ^o	4	0.04	05LIT
20549.548	4866.287	42	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	5	0.013	05LIT
20550.52	4866.056	9	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{5/2})4f	[4.5] ^o	4	0.04	05LIT
20556.89	4864.549	5	3d ³ (² D)4s	a ³ D	3	–	3d ² (² F)4s4p(³ P ^o)	z ¹ F ^o	3	0.05	91FOR
20566.80	4862.206	8	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{3/2})4f	[2.5] ^o	3	0.04	05LIT
20576.492	4859.915	15	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	4	0.013	05LIT
20583.63	4858.229	1	3d ³ (² P)4s	a ¹ P	1	–	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.05	91FOR
20600.810	4854.178	30	3d ² 4s(⁴ F)4d	g ⁵ F	3	–	3d ² 4s(⁴ F _{3/2})4f	[3.5] ^o	4	0.013	05LIT
20618.46	4850.022	5	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	–	3d ⁴	³ F1	4	0.05	91FOR
20636.01	4845.899	5	3d ³ (² F)4s	³ F	3	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.05	91FOR
20661.32	4839.961	10	3d ³ (² G)4p	v ³ G ^o	5	–	3d ² 4s(⁴ F)4d	³ H	6	0.05	91FOR
20739.21	4821.785	230 bl	3d ³ (² F)4s	³ F	2	–	3d ² (¹ G)4s4p(³ P ^o)	x ³ G ^o	3	0.05	91FOR
20822.20	4802.566	5	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	–	3d ² 4s(⁴ F)4d	³ D	1	0.05	91FOR
20861.22	4793.584	6	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	–	3d ² 4s(⁴ F)4d	³ D	2	0.05	91FOR
20919.06	4780.330	9	3d ² 4s(⁴ F)4d	g ⁵ F	4	–	3d ² 4s(⁴ F _{3/2})4f	[4.5] ^o	5	0.04	05LIT
20950.91	4773.063	8	3d ² 4s(⁴ F)4d	g ⁵ F	5	–	3d ² 4s(⁴ F _{5/2})4f	[5.5] ^o	6	0.04	05LIT
21051.74	4750.202	8	3d ³ (² G)4p	v ³ G ^o	4	–	3d ² 4s(⁴ F)4d	³ H	5	0.05	91FOR
21066.79	4746.808	7	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	–	3d ² 4s(⁴ F)4d	³ D	3	0.05	91FOR
21147.28	4728.740	35	3d ³ (⁴ F)5s	f ⁵ F	4	–	3d ³ (⁴ F)5p	⁵ G ^o	5	0.05	91FOR
21155.39	4726.928	31	3d ³ (⁴ F)5s	f ⁵ F	5	–	3d ³ (⁴ F)5p	⁵ G ^o	6	0.05	91FOR
21158.10	4726.323	30	3d ³ (⁴ F)5s	f ⁵ F	3	–	3d ³ (⁴ F)5p	⁵ G ^o	4	0.05	91FOR
21191.04	4718.976	23	3d ³ (⁴ F)5s	f ⁵ F	2	–	3d ³ (⁴ F)5p	⁵ G ^o	3	0.05	91FOR
21223.94	4711.661	1	3d ² (² D)4s	b ¹ D	2	–	3d ² (³ P)4s4p(³ P ^o)	z ³ S ^o	1	0.05	91FOR
21244.57	4707.085	17	3d ³ (⁴ F)5s	f ⁵ F	1	–	3d ³ (⁴ F)5p	⁵ G ^o	2	0.05	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
21 277.35	4699.834	1	3d ³ (² F)4s	³ F	3	–	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	0.05	91FOR
21 314.44	4691.654	38	3d ³ (⁴ F)4p	w ³ G ^o	3	–	3d ⁴	b ³ G	3	0.05	91FOR
21 377.67	4677.779	1*	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	–	3d ² 4s(⁴ F)4d	³ D	1	0.05	91FOR
21 377.67	4677.779	1*	3d ³ (² G)4p	v ³ G ^o	5	–	3d ² 4s(⁴ F)4d	³ H	5	0.05	91FOR
21 436.82	4664.872	6	3d ³ (⁴ F)5s	f ⁵ F	2	–	3d ³ (⁴ F)5p	⁵ G ^o	2	0.06	91FOR
21 460.55	4659.713	5	3d ³ (² G)4p	v ³ G ^o	3	–	3d ² 4s(⁴ F)4d	³ H	4	0.06	91FOR
21 487.41	4653.889	7	3d ³ (⁴ F)5s	f ⁵ F	3	–	3d ³ (⁴ F)5p	⁵ G ^o	3	0.06	91FOR
21 538.72	4642.802	46	3d ³ (⁴ F)4p	w ³ G ^o	4	–	3d ⁴	b ³ G	4	0.06	91FOR
21 560.15	4638.186	6	3d ³ (⁴ F)5s	f ⁵ F	4	–	3d ³ (⁴ F)5p	⁵ G ^o	4	0.06	91FOR
21 604.42	4628.682	15	3d ³ (⁴ F)5s	f ³ F	2	–	3d ² 4s(⁴ F)5p	³ G ^o	3	0.06	91FOR
21 632.33	4622.710	1	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	–	3d ⁴	³ P2	2	0.06	91FOR
21 650.26	4618.883	8	3d ³ (² H)4p	³ G ^o	5	–	3d ² 4s(² F)4d	f ³ H	6	0.06	91FOR
21 652.54	4618.395	5	3d ³ (⁴ F)5s	f ⁵ F	5	–	3d ³ (⁴ F)5p	⁵ G ^o	5	0.06	91FOR
21 663.43	4616.075	17	3d ³ (⁴ F)5s	f ³ F	3	–	3d ² 4s(⁴ F)5p	³ G ^o	4	0.06	91FOR
21 688.63	4610.711	1	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	–	3d ² 4s(⁴ F)4d	³ D	2	0.06	91FOR
21 703.81	4607.487	1	3d ² 4s(⁴ F)5s	e ³ F	2	–	3d4s ² 4p	q ³ D ^o	1	0.06	91FOR
21 773.54	4592.730	7	3d ³ (² H)4s	a ¹ H	5	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ F ^o	4	0.06	91FOR
21 774.11	4592.610	1	3d ³ (⁴ F)5s	f ³ F	3	–	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.06	91FOR
21 788.89	4589.495	1300	3d ³ (⁴ P)4s	a ⁵ P	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	4	0.06	91FOR
21 805.524	4585.994	11	3d ⁴	³ P1	2	–	3d ³ (⁴ F _{7/2})4f	[2.5] ^o	3	0.014	05LIT
21 848.03	4577.072	2	3d ³ (² H)4p	³ G ^o	4	–	3d ² 4s(² F)4d	f ³ H	5	0.06	91FOR
21 853.19	4575.992	2	3d ³ (⁴ F)4p	w ³ G ^o	4	–	3d ⁴	b ³ G	3	0.06	91FOR
21 872.07	4572.042	18	3d ³ (⁴ F)4p	w ³ G ^o	5	–	3d ⁴	b ³ G	5	0.06	91FOR
21 903.35	4565.511	710	3d ³ (⁴ P)4s	a ⁵ P	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.06	91FOR
21 933.88	4559.157	1	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	–	3d ⁴	³ P2	1	0.06	91FOR
21 964.27	4552.848	1	3d ³ (⁴ F)5s	f ³ F	2	–	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.06	91FOR
21 968.96	4551.88	2 q	3d ³ (² H)4p	³ G ^o	3	–	3d ² 4s(² F)4d	f ³ H	4	0.12	91FOR
21 993.67	4546.762	1	3d ² 4s(⁴ F)5s	e ³ F	3	–	3d4s ² 4p	q ³ D ^o	2	0.06	91FOR
22 010.51	4543.285	270	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.06	91FOR
22 150.42	4514.588	1	3d ³ (⁴ F)5s	f ³ F	3	–	3d ² 4s(⁴ F)5p	³ G ^o	3	0.06	91FOR
22 169.94	4510.612	1	3d ² 4s(⁴ F)4d	³ H	4	–	3d ³ (² F)4p	³ G ^o	3	0.06	91FOR
22 204.50	4503.592	2	3d ³ (⁴ F)4p	w ³ G ^o	5	–	3d ⁴	b ³ G	4	0.06	91FOR
22 217.29	4500.998	380	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	0.06	91FOR
22 238.90	4496.625	470	3d ³ (⁴ P)4s	a ⁵ P	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.06	91FOR
22 261.52	4492.057	2	3d ² 4s(⁴ F)4d	³ H	6	–	3d ³ (² F)4p	³ G ^o	5	0.06	91FOR
22 280.11	4488.309	360	3d ³ (⁴ P)4s	a ⁵ P	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.06	91FOR
22 289.01	4486.515	2	3d ² 4s(⁴ F)5s	e ³ F	4	–	3d4s ² 4p	q ³ D ^o	3	0.06	91FOR
22 316.67	4480.955	170	3d ³ (⁴ P)4s	a ⁵ P	1	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	0	0.06	91FOR
22 355.07	4473.259	10	3d ³ (⁴ F)4d	⁵ G	3	–	3d ² 4s(⁴ F _{5/2})4f	[1.5] ^o	2	0.05	05LIT
22 365.49	4471.175	1	3d ³ (⁴ F)5s	f ³ F	4	–	3d ² 4s(⁴ F)5p	³ G ^o	4	0.06	91FOR
22 371.90	4469.893	2	3d ² 4s(⁴ F)4d	³ H	5	–	3d ³ (² F)4p	³ G ^o	4	0.06	91FOR
22 389.41	4466.397	1	3d ³ (² H)4p	³ G ^o	4	–	3d ² 4s(² F)4d	f ³ H	4	0.06	91FOR
22 392.11	4465.859	2	3d ³ (² G)4s	a ³ G	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.06	91FOR
22 450.02	4454.339	130	3d ³ (⁴ P)4s	a ⁵ P	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	1	0.06	91FOR
22 453.55	4453.638	1	3d ⁴	³ F1	4	–	3d ³ (² F)4p	p ³ F ^o	4	0.06	91FOR
22 464.08	4451.552	1	3d ³ (² G)4p	x ¹ G ^o	4	–	3d ⁴	¹ F	3	0.06	91FOR
22 477.93	4448.809	2	3d ³ (⁴ F)5s	f ³ F	2	–	3d ² 4s(⁴ F)5p	o ³ D ^o	1	0.06	91FOR
22 483.56	4447.695	3	3d ³ (⁴ F)5s	f ³ F	4	–	3d ² 4s(⁴ F)5p	o ³ D ^o	3	0.06	91FOR
22 528.94	4438.736	3	3d ³ (⁴ F)5s	f ³ F	3	–	3d ² 4s(⁴ F)5p	o ³ D ^o	2	0.06	91FOR
22 549.26	4434.735	1*	3d ² 4s(⁴ F)5p	r ³ F ^o	3	–	3d ² 4s(⁴ F)5d	h ⁵ G	4	0.06	91FOR
22 549.26	4434.735	1*	3d ⁴	³ P2	0	–	3d ³ (² P)4p	t ³ D ^o	1	0.06	91FOR
22 627.39	4419.423	57*	3d ³ 4d	⁵ P	2	–	3d ² 4s(⁴ F _{9/2})4f	[1.5] ^o	2	0.06	91FOR
22 627.39	4419.423	57*	3d ³ (⁴ P)4s	a ⁵ P	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	2	0.06	91FOR
22 638.91	4417.173	28	3d ³ (² G)4s	a ³ G	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.06	91FOR
22 676.46	4409.860	4	3d ⁴	³ P1	2	–	3d ³ (⁴ F _{3/2})4f	[3.5] ^o	3	0.05	05LIT
22 712.37	4402.888	6	3d ⁴	³ P1	2	–	3d ³ (⁴ F _{3/2})4f	[2.5] ^o	3	0.05	05LIT
22 740.30	4397.479	3	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	–	3d ⁴	³ D	2	0.06	91FOR
22 896.29	4367.520	130	3d ³ (² H)4s	a ³ H	4	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.06	91FOR
22 969.60	4353.581	460	3d ³ (² G)4s	a ³ G	5	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.06	91FOR
23 013.28	4345.317	3	3d ³ (⁴ F)4s	b ³ F	2	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.06	91FOR
23 063.70	4335.818	3	3d ³ (⁴ F)4s	b ³ F	3	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.06	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
23 098.66	4329.256	2	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	4	0.06	91FOR
23 183.21	4313.466	30	3d ³ (² G)4s	a ³ G	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.06	91FOR
23 243.11	4302.351	6	3d ³ 4d	⁵ P	3	—	3d ² 4s(⁴ F _{9/2})4f	[3.5] ^o	4	0.05	05LIT
23 286.39	4294.353	2	3d ³ (⁴ F)5p	⁵ F ^o	5	—	3d ² 4s(⁴ F)5d	⁵ F	5	0.07	91FOR
23 317.42	4288.640	2	3d ³ (² H)4p	³ G ^o	5	—	3d ² 4s(² F)4d	³ G	5	0.07	91FOR
23 410.25	4271.633	4	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ⁴	³ D	3	0.07	91FOR
23 447.86	4264.782	380	3d ³ (² G)4s	a ³ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.07	91FOR
23 465.14	4261.640	5*	3d ³ (⁴ F)4d	⁵ F	3	—	3d ² 4s(⁴ F _{7/2})4f	[3.5] ^o	4	0.06	05LIT
23 465.14	4261.640	5*	3d ² 4s(² D)5s	³ D	2	—	3d ³ (⁴ F _{9/2})4f	[3.5] ^o	3	0.06	05LIT
23 566.34	4243.341	2	3d ³ (² H)4p	³ G ^o	4	—	3d ² 4s(² F)4d	³ G	4	0.07	91FOR
23 600.06	4237.277	2	3d ³ (⁴ F)4s	b ³ F	3	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	2	0.07	91FOR
23 609.66	4235.554	2	3d ³ (² G)4p	t ³ F ^o	4	—	3d ² 4s(⁴ F)4d	³ D	3	0.07	91FOR
23 610.00	4235.493	2	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	4	—	3d ⁴	b ³ G	3	0.07	91FOR
23 620.79	4233.559	2	3d ³ (² H)4p	³ G ^o	3	—	3d ² 4s(² F)4d	³ G	3	0.07	91FOR
23 663.82	4225.860	2	3d ³ (² G)4p	t ³ F ^o	3	—	3d ² 4s(⁴ F)4d	³ D	2	0.07	91FOR
23 707.95	4217.994	2	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	5	—	3d ⁴	b ³ G	4	0.07	91FOR
23 725.48	4214.878	300	3d ³ (² G)4s	a ³ G	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.07	91FOR
23 792.18	4203.061	2	3d ³ (² G)4p	t ³ F ^o	2	—	3d ² 4s(⁴ F)4d	³ D	1	0.07	91FOR
23 816.26	4198.812	2	3d ³ (⁴ F)4s	b ³ F	4	—	3d ² (³ F)4s4p(³ P ^o)	z ⁵ G ^o	3	0.07	91FOR
23 882.40	4187.183	2	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	6	—	3d ⁴	b ³ G	5	0.07	91FOR
24 039.30	4159.855	2	3d ² 4s(⁴ F)5p	⁵ G ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.07	91FOR
24 176.11	4136.314	2	3d ² 4s(⁴ F)5p	⁵ G ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.07	91FOR
24 250.25	4123.668	2	3d ² 4s(⁴ F)5p	⁵ G ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.07	91FOR
24 288.47	4117.180	620	3d ³ (² G)4s	b ¹ G	4	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.07	91FOR
24 367.81	4103.775	2	3d ³ (⁴ F)5s	f ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.07	91FOR
24 532.74	4076.186	2	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	—	3d ² 4s(⁴ F)4d	e ⁵ D	3	0.07	91FOR
24 538.16	4075.285	3	3d ² 4s(⁴ F)5p	⁵ G ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.07	91FOR
24 597.29	4065.488	2	3d ² 4s(⁴ F)5p	⁵ F ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.07	91FOR
24 648.73	4057.004	6	3d ² 4s(⁴ F)5p	⁵ G ^o	6	—	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.07	91FOR
24 652.14	4056.443	2	3d ³ (⁴ F)5s	f ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.07	91FOR
24 654.48	4056.058	4	3d ² 4s(⁴ F)5p	⁵ G ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.07	91FOR
24 701.70	4048.305	2	3d ³ (² D ₂)4s	a ³ D	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.07	91FOR
24 718.07	4045.624	2	3d ³ (² D ₂)4s	a ³ D	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.07	91FOR
24 718.81	4045.502	5	3d ² 4s(⁴ F)5p	⁵ G ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.06	05LIT
24 719.99	4045.309	5	3d ² 4s(⁴ F)5p	⁵ G ^o	5	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.07	91FOR
24 775.79	4036.198	5	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	—	3d ⁴	³ F ₂	4	0.07	91FOR
24 843.68	4025.169	2	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	—	3d ² 4s(⁴ F)4d	e ⁵ D	4	0.07	91FOR
24 864.28	4021.834	2	3d ² 4s(⁴ F)5p	⁵ F ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.07	91FOR
24 875.22	4020.065	3	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	—	3d ² 4s(⁴ F)4d	g ³ F	2	0.07	91FOR
24 876.87	4019.799	2	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.07	91FOR
24 919.98	4012.844	2	3d ⁴	³ F ₁	4	—	3d ³ (² F)4p	³ G ^o	5	0.07	91FOR
24 925.58	4011.943	2	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	—	3d ² 4s(⁴ F)4d	g ³ F	3	0.07	91FOR
25 082.85	3986.787	2	3d ² 4s(⁴ F)5p	⁵ F ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.08	91FOR
25 101.42	3983.838	4	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	—	3d ⁴	³ F ₂	3	0.08	91FOR
25 177.83	3971.748	42	3d ³ (⁴ F)4p	w ³ G ^o	3	—	3d ⁴	³ H	4	0.08	91FOR
25 198.41	3968.505	2	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	—	3d ⁴	³ F ₂	3	0.08	91FOR
25 225.57	3964.232	2	3d ² 4s(⁴ F)5s	e ³ F	3	—	3d4s ² 4p	s ³ F ^o	4	0.08	91FOR
25 258.13	3959.122	2	3d ² 4s(⁴ F)5p	⁵ F ^o	1	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.08	91FOR
25 259.70	3958.875	5	3d ³ (⁴ F)5s	f ³ F	4	—	3d ² 4s(⁴ F)5p	r ³ F ^o	4	0.08	91FOR
25 331.91	3947.590	2	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	—	3d ² 4s(⁴ F)4d	g ³ F	4	0.08	91FOR
25 365.66	3942.338	5	3d ³ (⁴ F)5s	f ³ F	3	—	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.08	91FOR
25 376.63	3940.633	4	3d ³ (⁴ F)5s	f ³ F	2	—	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.08	91FOR
25 384.47	3939.416	3	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	—	3d ⁴	³ F ₂	2	0.08	91FOR
25 407.14	3935.901	4	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.08	91FOR
25 433.38	3931.841	6	3d ² 4s(⁴ F)5p	⁵ F ^o	5	—	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.08	91FOR
25 540.79	3915.306	5	3d ² 4s(⁴ F)5p	⁵ F ^o	4	—	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.08	91FOR
25 570.48	3910.759	49*	3d ³ (⁴ F)4p	w ³ G ^o	4	—	3d ⁴	³ H	5	0.08	91FOR
25 570.48	3910.759	49*	3d ² 4s(⁴ F)5p	⁵ F ^o	1	—	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.08	91FOR
25 591.92	3907.483	4	3d ² 4s(⁴ F)5p	⁵ F ^o	3	—	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.08	91FOR
25 598.18	3906.527	3	3d ² 4s(⁴ F)5p	⁵ F ^o	2	—	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.08	91FOR
25 645.66	3899.296	690	3d ³ (² H)4s	a ¹ H	5	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ G ^o	4	0.08	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
25 825.98	3872.070	2	3d ⁴	³ F1	3	–	3d ³ (² F)4p	³ G ^o	4	0.08	91FOR
25 919.11	3858.157	2	3d ² 4s(⁴ F)5p	⁵ F ^o	2	–	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.08	91FOR
25 933.07	3856.081	3	3d ³ (⁴ F)4p	w ³ G ^o	4	–	3d ⁴	³ H	4	0.08	91FOR
26 036.13	3840.817	52	3d ³ (⁴ F)4p	w ³ G ^o	5	–	3d ⁴	³ H	6	0.08	91FOR
26 128.54	3827.233	2	3d ² 4s(⁴ F)5p	⁵ F ^o	3	–	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.08	91FOR
26 129.17	3827.141	5	3d ³ (² G)4p	z ¹ H ^o	5	–	3d ⁴	¹ G2	4	0.08	91FOR
26 133.43	3826.517	2	3d ³ (⁴ F)5s	f ³ F	3	–	3d ² 4s(⁴ F)5p	r ³ F ^o	2	0.08	91FOR
26 309.16	3800.958	3	3d ² 4s(⁴ F)5p	⁵ F ^o	4	–	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.08	91FOR
26 310.95	3800.699	3	3d ³ (⁴ F)4p	w ³ G ^o	3	–	3d ⁴	³ F2	3	0.08	91FOR
26 319.52	3799.462	4	3d ² 4s(⁴ F)5s	e ³ F	4	–	3d4s ² 4p	s ³ F ^o	4	0.08	91FOR
26 323.48	3798.890	3	3d ² 4s(⁴ F)5s	e ³ F	2	–	3d4s ² 4p	s ³ F ^o	2	0.08	91FOR
26 332.03	3797.657	3	3d ² 4s(⁴ F)5s	e ³ F	3	–	3d4s ² 4p	s ³ F ^o	3	0.08	91FOR
26 333.59	3797.431	2	3d ³ (⁴ F)5s	f ³ F	4	–	3d ² 4s(⁴ F)5p	r ³ F ^o	3	0.08	91FOR
26 443.33	3781.672	2	3d ² 4s(⁴ F)5p	⁵ F ^o	5	–	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.08	91FOR
26 514.31	3771.548	3	3d ³ (⁴ F)4p	w ³ G ^o	5	–	3d ⁴	³ H	5	0.08	91FOR
26 522.29	3770.413	5	3d ⁴	³ H	4	–	3d ³ (² H)4p	x ³ H ^o	4	0.08	91FOR
26 647.33	3752.721	2	3d ³ (⁴ F)4p	w ³ G ^o	4	–	3d ⁴	³ F2	4	0.09	91FOR
26 653.35	3751.873	5	3d ⁴	³ H	5	–	3d ³ (² H)4p	x ³ H ^o	5	0.09	91FOR
26 658.85	3751.099	2	3d ³ (² G)4p	v ³ G ^o	4	–	3d ² 4s(² F)5s	³ F	3	0.09	91FOR
26 663.58	3750.434	3	3d ³ (² H)4p	z ³ I ^o	7	–	3d ² 4s(⁴ F)4d	³ H	6	0.09	91FOR
26 669.37	3749.620	2	3d ³ (⁴ F)4p	w ³ G ^o	3	–	3d ⁴	³ F2	2	0.09	91FOR
26 818.09	3728.826	7	3d ⁴	³ H	6	–	3d ³ (² H)4p	x ³ H ^o	6	0.09	91FOR
27 008.79	3702.498	3	3d ³ (² H)4s	a ³ H	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.09	91FOR
27 032.76	3699.216	3	3d ³ (² H)4p	z ³ I ^o	6	–	3d ² 4s(⁴ F)4d	³ H	5	0.09	91FOR
27 046.24	3697.371	3	3d ³ (² G)4p	t ³ F ^o	4	–	3d ² 4s(⁴ F)4d	³ H	5	0.09	91FOR
27 054.32	3696.267	3	3d4s ² 4p	q ³ D ^o	3	–	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.09	91FOR
27 126.44	3686.440	3	3d4s ² 4p	q ³ D ^o	2	–	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.09	91FOR
27 132.15	3685.665	3	3d ³ (² P)4p	¹ D ^o	2	–	3d ² 4s(² D)5s	¹ D	2	0.09	91FOR
27 136.84	3685.027	4	3d ³ (⁴ F)4p	w ³ G ^o	4	–	3d ⁴	³ F2	3	0.09	91FOR
27 379.27	3652.398	6	3d ² 4s(⁴ F)5p	⁵ D ^o	4	–	3d ² 4s(⁴ F)6s	h ⁵ F	5	0.09	91FOR
27 456.93	3642.068	3	3d ³ (² H)4p	z ³ I ^o	5	–	3d ² 4s(⁴ F)4d	³ H	4	0.09	91FOR
27 539.50	3631.148	11	3d ² 4s(⁴ F)5s	e ³ F	2	–	3d ³ (² H)4p	³ G ^o	3	0.09	91FOR
27 540.36	3631.035	5	3d ² 4s(⁴ F)5p	⁵ D ^o	3	–	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.09	91FOR
27 590.20	3624.475	3	3d ⁴	³ P2	2	–	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	0.09	91FOR
27 597.89	3623.466	13	3d ² 4s(⁴ F)5p	⁵ D ^o	2	–	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.09	91FOR
27 625.99	3619.780	3	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	–	3d ² 4s(⁴ F)5s	e ³ F	4	0.09	91FOR
27 632.04	3618.987	3	3d ² 4s(⁴ F)5p	⁵ D ^o	1	–	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.09	91FOR
27 673.87	3613.517	4	3d ³ (⁴ F)4p	w ³ G ^o	5	–	3d ⁴	³ F2	4	0.09	91FOR
27 684.84	3612.085	3	3d ² 4s(⁴ F)5p	⁵ D ^o	0	–	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.09	91FOR
27 730.03	3606.199	3	3d4s ² 4p	q ³ D ^o	2	–	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.09	91FOR
27 782.75	3599.356	4	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	–	3d ³ (² F)4s	³ F	3	0.09	91FOR
27 789.76	3598.448	47	3d ³ (² H)4s	a ³ H	5	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.09	91FOR
27 812.59	3595.494	12	3d ² 4s(⁴ F)5s	e ³ F	3	–	3d ³ (² H)4p	³ G ^o	4	0.09	91FOR
27 922.14	3581.387	3	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	–	3d ² 4s(⁴ F)5s	e ³ F	3	0.09	91FOR
28 006.46	3570.605	3	3d ² 4s(⁴ F)5p	⁵ D ^o	1	–	3d ² 4s(⁴ F)6s	h ⁵ F	1	0.09	91FOR
28 103.99	3558.213	3	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	–	3d ² 4s(⁴ F)5s	e ³ F	2	0.09	91FOR
28 137.36	3553.994	3	3d ² 4s(² F)5s	³ F	3	–	3d ³ (⁴ F)5p	³ F ^o	3	0.09	91FOR
28 158.87	3551.279	35	3d ³ (² H)4s	a ³ H	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.10	91FOR
28 191.71	3547.142	870	3d ³ (² H)4s	a ³ H	6	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	0.10	91FOR
28 216.34	3544.046	3	3d ³ (² G)4p	t ³ F ^o	4	–	3d ² 4s(⁴ F)4d	³ H	4	0.10	91FOR
28 223.04	3543.205	3	3d ² 4s(⁴ F)5p	⁵ D ^o	2	–	3d ² 4s(⁴ F)6s	h ⁵ F	2	0.10	91FOR
28 262.00	3538.320	3	3d ³ (² G)4s	a ³ G	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.10	91FOR
28 366.29	3525.311	3	3d ⁴	³ F2	3	–	3d ³ (² P)4p	t ³ D ^o	2	0.10	91FOR
28 387.66	3522.657	3	3d ⁴	³ F2	4	–	3d ³ (² P)4p	t ³ D ^o	3	0.10	91FOR
28 434.99	3516.794	14	3d ² 4s(⁴ F)5s	e ³ F	4	–	3d ³ (² H)4p	³ G ^o	5	0.10	91FOR
28 436.2	3516.65	5 q	3d ² 4s(⁴ F)5p	⁵ D ^o	3	–	3d ² 4s(⁴ F)6s	h ⁵ F	3	0.2	91FOR
28 444.67	3515.597	3	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	4	–	3d ⁴	³ H	4	0.10	91FOR
28 489.90	3510.016	3	3d ² 4s(⁴ F)5s	e ³ F	3	–	3d ³ (² H)4p	³ G ^o	3	0.10	91FOR
28 502.59	3508.453	3	3d ³ (² G)4p	t ³ F ^o	3	–	3d ² 4s(⁴ F)4d	e ³ D	3	0.10	91FOR
28 553.36	3502.215	3	3d ² 4s(⁴ F)5p	⁵ D ^o	4	–	3d ² 4s(⁴ F)6s	h ⁵ F	4	0.10	91FOR
28 580.19	3498.927	5	3d ³ (² G)4p	t ³ F ^o	4	–	3d ² 4s(⁴ F)4d	³ G	5	0.10	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
28 686.62	3485.946	3	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	5	–	3d ⁴	³ H	5	0.10	91FOR
28 732.71	3480.354	12	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	–	3d ³ (² F)4s	³ F	3	0.10	91FOR
28 779.21	3474.731	6	3d ³ (² G)4s	a ³ G	5	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	4	0.10	91FOR
28 935.52	3455.960	3	3d ² (¹ G)4s4p(³ P ^o)	z ³ H ^o	6	–	3d ⁴	³ H	6	0.10	91FOR
28 994.57	3448.922	3	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	–	3d ³ (² F)4s	³ F	4	0.10	91FOR
29 008.74	3447.237	550	3d ³ (² H)4s	a ³ H	5	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.10	91FOR
29 034.20	3444.214	3	3d ³ (² G)4p	t ³ F ^o	3	–	3d ² 4s(⁴ F)4d	g ³ F	3	0.10	91FOR
29 093.90	3437.147	3	3d ³ (² G)4s	a ³ G	4	–	3d ² (³ F)4s4p(³ P ^o)	z ⁵ D ^o	3	0.10	91FOR
29 100.78	3436.334	3	3d ³ (² G)4p	t ³ F ^o	4	–	3d ² 4s(⁴ F)4d	g ³ F	4	0.10	91FOR
29 135.22	3432.272	420	3d ³ (² H)4s	a ³ H	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.10	91FOR
29 145.07	3431.112	3	3d ³ (² G)4p	t ³ F ^o	3	–	3d ² 4s(⁴ F)4d	³ G	4	0.10	91FOR
29 148.42	3430.718	3	3d ² 4s(⁴ F)5s	e ³ F	4	–	3d ³ (² H)4p	³ G ^o	4	0.10	91FOR
29 167.04	3428.527	3*	3d ² 4s(⁴ F)6s	h ⁵ F	2	–	3d ³ (⁴ F _{7/2})4f	[3.5] ^o	3	0.10	91FOR
29 167.04	3428.527	3*	3d ⁴	³ F ₂	4	–	3d ³ (² G)4p	t ³ F ^o	4	0.10	91FOR
29 235.03	3420.554	3	3d ³ (² G)4p	t ³ F ^o	2	–	3d ² 4s(⁴ F)4d	g ³ F	2	0.10	91FOR
29 269.96	3416.472	3	3d ³ (² G)4p	t ³ F ^o	2	–	3d ² 4s(⁴ F)4d	³ G	3	0.10	91FOR
29 477.59	3392.408	2	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	2	–	3d ² 4s(² F)5s	³ F	3	0.10	91FOR
29 675.20	3369.817	3	3d ⁴	³ F ₂	3	–	3d ³ (² G)4p	t ³ F ^o	3	0.11	91FOR
29 916.93	3342.589	2	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	1	–	3d ² 4s(² F)5s	³ F	2	0.11	91FOR
30 039.19	3328.985	2	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	3	–	3d ⁴	³ P ₂	2	0.11	91FOR
30 049.12	3327.885	3	3d ⁴	³ F ₂	2	–	3d ³ (² G)4p	t ³ F ^o	2	0.11	91FOR
30 104.67	3321.744	2	3d ² (³ P)4s4p(¹ P ^o)	u ³ D ^o	3	–	3d ² 4s(² F)5s	³ F	4	0.11	91FOR
30 294.41	3300.939	7	3d ³ (² G)4s	b ¹ G	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	4	0.11	91FOR
30 324.11	3297.706	11	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	5	–	3d ³ (² F)4s	³ F	4	0.11	91FOR
30 593.60	3268.658	3	3d ⁴	³ H	5	–	3d ³ (² H)4p	z ³ I ^o	6	0.11	91FOR
30 718.17	3255.402	3	3d ³ (⁴ P)4s	c ³ P	1	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.11	91FOR
30 987.07	3227.152	3	3d ⁴	³ H	4	–	3d ³ (² H)4p	z ³ I ^o	5	0.12	91FOR
31 088.63	3216.610	3	3d ² (¹ D)4s4p(³ P ^o)	³ P ^o	0	–	3d ⁴	a ⁵ D	1	0.12	91FOR
31 321.33	3192.712	6	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	–	3d ⁴	a ⁵ D	2	0.12	91FOR
31 339.83	3190.828	3*	3d ³ (² F)4p	p ³ F ^o	4	–	3d ² 4s(⁴ F _{3/2})5g	[4.5]	5	0.12	91FOR
31 339.83	3190.828	3*	3d ³ (² D ₂)4p	s ³ D ^o	3	–	3d ² 4s(⁴ F)4d	³ D	3	0.12	91FOR
31 422.95	3182.387	7	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	–	3d ⁴	a ⁵ D	3	0.12	91FOR
31 427.38	3181.939	70	3d ³ (² G)4s	b ¹ G	4	–	3d ² (³ F)4s4p(³ P ^o)	z ³ G ^o	3	0.12	91FOR
31 455.07	3179.138	4	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	0	–	3d ⁴	a ⁵ D	1	0.12	91FOR
31 687.74	3155.795	3	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	–	3d ⁴	a ⁵ D	1	0.12	91FOR
31 701.92	3154.383	6	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	–	3d ⁴	a ⁵ D	4	0.12	91FOR
31 875.78	3137.178	3	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	2	–	3d ⁴	³ P ₂	1	0.12	91FOR
31 877.41	3137.018	5	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	1	–	3d ⁴	a ⁵ D	0	0.12	91FOR
31 950.66	3129.826	4	3d ² 4s(⁴ F)4d	g ³ F	2	–	3d ³ (⁴ F)5p	³ G ^o	3	0.12	91FOR
31 964.73	3128.448	6	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	–	3d ⁴	a ⁵ D	2	0.12	91FOR
32 162.75	3109.187	4	3d ² 4s(⁴ F)4d	g ³ F	3	–	3d ³ (⁴ F)5p	³ G ^o	4	0.12	91FOR
32 174.03	3108.097	4*	3d ³ (² D ₂)4p	w ¹ F ^o	3	–	3d ⁴	¹ F	3	0.12	91FOR
32 174.03	3108.097	4*	3d ³ (² D ₂)4p	s ³ D ^o	1	–	3d ² 4s(⁴ F)4d	³ D	2	0.12	91FOR
32 210.75	3104.554	4	3d ² 4s(⁴ F)4d	g ³ F	4	–	3d ³ (⁴ F)5p	³ G ^o	5	0.12	91FOR
32 346.38	3091.536	8	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	2	–	3d ⁴	a ⁵ D	1	0.13	91FOR
32 417.26	3084.776	13	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	–	3d ⁴	a ⁵ D	3	0.13	91FOR
32 423.18	3084.213	4	3d ³ (² D ₂)4p	s ³ D ^o	2	–	3d ² 4s(⁴ F)4d	³ D	2	0.13	91FOR
32 873.69	3041.946	4	3d ² 4s(⁴ F)4d	³ G	5	–	3d ³ (⁴ F)5p	³ G ^o	5	0.13	91FOR
32 945.29	3035.335	4	3d ² (³ P)4s4p(³ P ^o)	v ³ D ^o	1	–	3d ⁴	³ P ₂	0	0.13	91FOR
32 994.19	3030.837	10	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	3	–	3d ⁴	a ⁵ D	2	0.13	91FOR
33 055.56	3025.210	26	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	–	3d ⁴	a ⁵ D	4	0.13	91FOR
33 119.03	3019.412	4	3d ² 4s(⁴ F)5s	e ³ F	4	–	3d ³ (⁴ P)4p	r ³ D ^o	3	0.13	91FOR
33 143.74	3017.161	4	3d ² 4s(⁴ F)5s	e ³ F	2	–	3d ³ (⁴ P)4p	r ³ D ^o	1	0.13	91FOR
33 419.32	2992.281	5	3d ³ (² D ₂)4p	s ³ D ^o	1	–	3d ² 4s(⁴ F)4d	³ D	1	0.13	91FOR
33 654.92	2971.334	4	3d ³ (² H)4p	x ³ H ^o	6	–	3d ² 4s(⁴ F)4d	³ G	5	0.14	91FOR
33 834.03	2955.604	8	3d ² (³ P)4s4p(³ P ^o)	⁵ D ^o	4	–	3d ⁴	a ⁵ D	3	0.14	91FOR
34 528.29	2896.176	5	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	1	–	3d ³ (² D ₁)4s	³ D	1	0.14	91FOR
36 085.10	2771.227	6	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	2	–	3d ³ (² D ₁)4s	³ D	2	0.16	91FOR
36 635.03	2729.628	6	3d ² 4s(⁴ F)4d	³ H	5	–	3d ³ (⁴ F)5p	³ G ^o	4	0.16	91FOR
36 863.19	2712.733	11	3d ³ (² F)4s	³ F	4	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	5	0.16	91FOR
37 006.81	2702.205	20	3d ³ (² D ₂)4s	a ³ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.16	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
37 295.13	2681.315	7	3d ² 4s(4F)4d	³ H	6	–	3d ³ (4F)5p	³ G ^o	5	0.17	91FOR
37 624.69	2657.829	34	3d ² 4s(4F _{9/2})4f	[6.5] ^o	7	–	3d ² 4s(4F _{9/2})5g	[7.5]	8	0.04	05LIT
37 635.62	2657.057	10	3d ² 4s(4F _{9/2})4f	[6.5] ^o	7	–	3d ² 4s(4F _{9/2})5g	[6.5]	7	0.14	05LIT
37 639.73	2656.767	6	3d ² 4s(4F _{3/2})4f	[3.5] ^o	3	–	3d ² 4s(4F _{3/2})5g	[3.5]	3	0.14	05LIT
37 649.47	2656.080	11	3d ² 4s(4F _{9/2})4f	[5.5] ^o	6	–	3d ² 4s(4F _{9/2})5g	[5.5]	6	0.04	05LIT
37 650.96	2655.975	20	3d ² 4s(4F _{3/2})4f	[3.5] ^o	3	–	3d ² 4s(4F _{3/2})5g	[4.5]	4	0.04	05LIT
37 654.08	2655.755	25	3d ² 4s(4F _{9/2})4f	[5.5] ^o	6	–	3d ² 4s(4F _{9/2})5g	[6.5]	7	0.04	05LIT
37 670.67	2654.585	24	3d ² 4s(4F _{7/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{7/2})5g	[5.5]	6	0.04	05LIT
37 671.85	2654.502	6	3d ² 4s(4F _{7/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{7/2})5g	[5.5]	5	0.14	05LIT
37 679.73	2653.947	3	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	–	3d ² 4s(4F _{9/2})5g	[3.5]	4	0.14	05LIT
37 682.34	2653.763	32	3d ² 4s(4F _{7/2})4f	[5.5] ^o	6	–	3d ² 4s(4F _{7/2})5g	[6.5]	7	0.04	05LIT
37 685.14	2653.566	8	3d ² 4s(4F _{7/2})4f	5.5] ^o	6	–	3d ² 4s(4F _{7/2})5g	[5.5]	6	0.14	05LIT
37 688.59	2653.323	7	3d ² 4s(4F _{9/2})4f	[2.5] ^o	3	–	3d ² 4s(4F _{9/2})5g	[4.5]	4	0.14	05LIT
37 691.49	2653.119	16	3d ² 4s(4F _{3/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{3/2})5g	[5.5]	5	0.04	05LIT
37 713.06	2651.601	15	3d ² 4s(4F _{3/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{3/2})5g	[4.5]	5	0.04	05LIT
37 724.57	2650.792	6	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{5/2})5g	[3.5]	4	0.14	05LIT
37 727.73	2650.570	21*	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{5/2})5g	[4.5]	4	0.04	05LIT
37 727.73	2650.570	21*	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{5/2})5g	[5.5]	5	0.04	05LIT
37 729.44	2650.450	9*	3d ² 4s(4F _{9/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{9/2})5g	[4.5]	5	0.04	05LIT
37 729.44	2650.450	9*	3d ² 4s(4F _{5/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{5/2})5g	[4.5]	5	0.04	05LIT
37 731.08	2650.335	5	3d ² 4s(4F _{5/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{5/2})5g	[5.5]	5	0.14	05LIT
37 732.76	2650.217	26*	3d ² 4s(4F _{5/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{5/2})5g	[5.5]	6	0.04	05LIT
37 732.76	2650.217	26*	3d ² 4s(4F _{5/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{5/2})5g	[4.5]	5	0.04	05LIT
37 734.74	2650.078	7	3d ³ (² G)4p	t 3F ^o	3	–	3d ² 4s(4F _{9/2})5s	³ F	2	0.17	91FOR
37 740.98	2649.640	14*	3d ² 4s(4F _{9/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{9/2})5g	[5.5]	6	0.04	05LIT
37 740.98	2649.640	14*	3d ² 4s(4F _{9/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{9/2})5g	[5.5]	5	0.04	05LIT
37 751.86	2648.876	8	3d ² 4s(4F _{5/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{5/2})5g	[5.5]	5	0.04	05LIT
37 753.83	2648.738	38*	3d ² 4s(4F _{5/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{5/2})5g	[4.5]	5	0.04	05LIT
37 753.83	2648.738	38*	3d ² 4s(4F _{5/2})4f	[3.5] ^o	3	–	3d ² 4s(4F _{5/2})5g	[4.5]	4	0.04	05LIT
37 755.78	2648.601	8	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{7/2})5g	[4.5]	5	0.14	05LIT
37 756.44	2648.555	46	3d ² 4s(4F _{9/2})4f	[7.5] ^o	8	–	3d ² 4s(4F _{9/2})5g	[8.5]	9	0.04	05LIT
37 756.98	2648.517	6	3d ² 4s(4F _{7/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{7/2})5g	[5.5]	5	0.14	05LIT
37 762.44	2648.134	39	3d ² 4s(4F _{7/2})4f	[6.5] ^o	7	–	3d ² 4s(4F _{7/2})5g	[7.5]	8	0.04	05LIT
37 771.11	2647.526	29	3d ² 4s(4F _{9/2})4f	[6.5] ^o	6	–	3d ² 4s(4F _{9/2})5g	[7.5]	7	0.04	05LIT
37 771.73	2647.483	28	3d ² 4s(4F _{7/2})4f	[5.5] ^o	5	–	3d ² 4s(4F _{7/2})5g	[6.5]	6	0.04	05LIT
37 773.19	2647.380	17	3d ² 4s(4F _{3/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{3/2})5g	[5.5]	5	0.04	05LIT
37 774.56	2647.284	8	3d ² 4s(4F _{7/2})4f	[5.5] ^o	5	–	3d ² 4s(4F _{7/2})5g	[5.5]	6	0.14	05LIT
37 774.56	2647.284	8	3d ² 4s(4F _{7/2})4f	[5.5] ^o	5	–	3d ² 4s(4F _{7/2})5g	[4.5]	5	0.14	05LIT
37 781.59	2646.792	6	3d ² 4s(4F _{9/2})4f	[7.5] ^o	8	–	3d ² 4s(4F _{9/2})5g	[7.5]	8	0.14	05LIT
37 782.01	2646.762	11	3d ² 4s(4F _{9/2})4f	[6.5] ^o	6	–	3d ² 4s(4F _{9/2})5g	[6.5]	6	0.04	05LIT
37 782.30	2646.742	11	3d ² 4s(4F _{7/2})4f	[6.5] ^o	7	–	3d ² 4s(4F _{7/2})5g	[6.5]	7	0.04	05LIT
37 784.90	2646.560	50	3d ² 4s(4F _{5/2})4f	[5.5] ^o	6	–	3d ² 4s(4F _{5/2})5g	[6.5]	7	0.04	05LIT
37 794.88	2645.861	16	3d ² 4s(4F _{3/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{3/2})5g	[4.5]	4	0.04	05LIT
37 801.14	2645.423	5	3d ² 4s(4F _{5/2})4f	[5.5] ^o	6	–	3d ² 4s(4F _{5/2})5g	[5.5]	6	0.14	05LIT
37 805.43	2645.123	34	3d ² 4s(4F _{5/2})4f	[5.5] ^o	5	–	3d ² 4s(4F _{5/2})5g	[6.5]	6	0.04	05LIT
37 816.31	2644.362	16	3d ² 4s(4F _{3/2})4f	[2.5] ^o	3	–	3d ² 4s(4F _{3/2})5g	[3.5]	4	0.04	05LIT
37 817.11	2644.306	5	3d ² 4s(4F _{7/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{7/2})5g	[4.5]	4	0.14	05LIT
37 818.75	2644.191	17	3d ² 4s(4F _{3/2})4f	[2.5] ^o	2	–	3d ² 4s(4F _{3/2})5g	[3.5]	3	0.04	05LIT
37 823.80	2643.838	12	3d ² 4s(4F _{9/2})4f	[5.5] ^o	5	–	3d ² 4s(4F _{9/2})5g	[4.5]	5	0.04	05LIT
37 824.96	2643.757	11	3d ² 4s(4F _{9/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{9/2})5g	[4.5]	4	0.04	05LIT
37 826.40	2643.656	18	3d ² 4s(4F _{5/2})4f	[2.5] ^o	3	–	3d ² 4s(4F _{5/2})5g	[3.5]	4	0.04	05LIT
37 827.35	2643.590	15	3d ² 4s(4F _{7/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{7/2})5g	[4.5]	5	0.04	05LIT
37 828.41	2643.516	8	3d ² 4s(4F _{7/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{7/2})5g	[5.5]	5	0.14	05LIT
37 833.23	2643.179	40	3d ² 4s(4F _{3/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{3/2})5g	[5.5]	6	0.04	05LIT
37 835.42	2643.026	16	3d ² 4s(4F _{9/2})4f	[5.5] ^o	5	–	3d ² 4s(4F _{9/2})5g	[5.5]	6	0.04	05LIT
37 836.68	2642.938	14	3d ² 4s(4F _{9/2})4f	[4.5] ^o	4	–	3d ² 4s(4F _{9/2})5g	[5.5]	5	0.04	05LIT
37 840.12	2642.698	7	3d ² 4s(4F _{9/2})4f	[5.5] ^o	5	–	3d ² 4s(4F _{9/2})5g	[6.5]	6	0.14	05LIT
37 846.09	2642.281	2	3d ² 4s(4F _{9/2})4f	[3.5] ^o	3	–	3d ² 4s(4F _{9/2})5g	[3.5]	3	0.14	05LIT
37 851.22	2641.923	3	3d ² 4s(4F _{9/2})4f	[2.5] ^o	2	–	3d ² 4s(4F _{9/2})5g	[3.5]	3	0.14	05LIT
37 855.01	2641.658	14	3d ² 4s(4F _{3/2})4f	[4.5] ^o	5	–	3d ² 4s(4F _{3/2})5g	[4.5]	5	0.04	05LIT
37 856.85	2641.530	8	3d ² 4s(4F _{7/2})4f	[3.5] ^o	3	–	3d ² 4s(4F _{7/2})5g	[4.5]	4	0.14	05LIT

TABLE 3. Spectral lines of Ti I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
37 862.24	2641.154	7	3d ² 4s(4F _{9/2})4f	[3.5] ^o	3	–	3d ² 4s(4F _{9/2})5g	[3.5]	4	0.14	05LIT
37 871.01	2640.542	42	3d ² 4s(4F _{7/2})4f	[6.5] ^o	6	–	3d ² 4s(4F _{7/2})5g	[7.5]	7	0.04	05LIT
37 884.03	2639.635	9	3d ² 4s(4F _{7/2})4f	[2.5] ^o	3	–	3d ² 4s(4F _{7/2})5g	[4.5]	4	0.14	05LIT
37 884.59	2639.596	12	3d ² 4s(4F _{5/2})4f	[1.5] ^o	2	–	3d ² 4s(4F _{5/2})5g	[3.5]	3	0.04	05LIT
37 891.05	2639.146	7*	3d ² 4s(4F _{7/2})4f	[6.5] ^o	6	–	3d ² 4s(4F _{7/2})5g	[6.5]	7	0.14	05LIT
37 891.05	2639.146	7*	3d ² 4s(4F _{7/2})4f	[6.5] ^o	6	–	3d ² 4s(4F _{7/2})5g	[6.5]	6	0.14	05LIT
37 928.89	2636.513	24	3d ³ (² D2)4s	a 3D	1	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.17	91FOR
37 937.36	2635.924	10	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{9/2})5g	[3.5]	4	0.14	05LIT
37 943.21	2635.518	43	3d ² 4s(4F _{9/2})4f	[7.5] ^o	7	–	3d ² 4s(4F _{9/2})5g	[8.5]	8	0.04	05LIT
37 946.37	2635.298	10	3d ² 4s(4F _{9/2})4f	[3.5] ^o	4	–	3d ² 4s(4F _{9/2})5g	[4.5]	5	0.14	05LIT
37 968.62	2633.754	7*	3d ² 4s(4F _{9/2})4f	[7.5] ^o	7	–	3d ² 4s(4F _{9/2})5g	[7.5]	7	0.14	05LIT
37 968.62	2633.754	7*	3d ² 4s(4F _{9/2})4f	[7.5] ^o	7	–	3d ² 4s(4F _{9/2})5g	[7.5]	8	0.14	05LIT
38 176.01	2619.446	7	3d ³ (⁴ F)5s	f ³ F	2	–	3d4s ² 4p	q ³ F ^o	1	0.17	91FOR
38 310.61	2610.243	9	3d ⁴	³ F2	4	–	3d ³ (² D2)4p	u ³ F ^o	4	0.18	91FOR
38 427.78	2602.284	7	3d ² (³ F)4s4p(¹ P ^o)	w ³ D ^o	3	–	3d ³ (² D1)4s	³ D	3	0.18	91FOR
38 553.10	2593.825	7	3d ³ (² D2)4p	x ¹ P ^o	1	–	3d ³ (² D1)4s	¹ D	2	0.18	91FOR
38 671.69	2585.871	120	3d ³ (² D2)4s	a ³ D	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.18	91FOR
38 726.86	2582.187	81	3d ³ (² D2)4s	a ³ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.18	91FOR
38 918.62	2569.464	8	3d ⁴	³ F2	3	–	3d ³ (² D2)4p	u ³ F ^o	3	0.18	91FOR
38 935.91	2568.323	60	3d ³ (² D2)4s	a ³ D	1	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.18	91FOR
38 975.13	2565.739	8	3d ³ (⁴ F)5s	f ³ F	3	–	3d4s ² 4p	q ³ D ^o	2	0.18	91FOR
39 279.75	2545.841	10	3d ³ (³ F)4s	³ F	3	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	4	0.19	91FOR
39 505.86	2531.270	8	3d ⁴	³ F2	2	–	3d ³ (² D2)4p	u ³ F ^o	2	0.19	91FOR
39 569.41	2527.205	13	3d ² (¹ G)4s4p(¹ P ^o)	y ¹ G ^o	4	–	3d ⁴	¹ G2	4	0.19	91FOR
39 598.41	2525.354	8	3d ³ (⁴ F)5s	f ³ F	4	–	3d4s ² 4p	q ³ D ^o	3	0.19	91FOR
39 777.31	2513.996	23	3d ³ (² D2)4s	a ³ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.19	91FOR
39 971.62	2501.775	8	3d ⁴	³ F2	4	–	3d ³ (² D2)4p	u ³ F ^o	3	0.19	91FOR
40 002.42	2499.849	8	3d ³ (⁴ F)4p	w ³ F ^o	4	–	3d ⁴	b ³ G	5	0.19	91FOR
40 553.92	2465.853	22	3d ³ (² D2)4s	a ³ D	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.20	91FOR
40 782.35	2452.041	9	3d ³ (⁴ F)4p	w ³ F ^o	3	–	3d ⁴	b ³ G	4	0.20	91FOR
40 847.5	2448.129	8	3d ⁴	³ F2	4	–	3d ³ (² G)4p	v ³ G ^o	5	0.2	91FOR
40 926.6	2443.396	8	3d ⁴	³ F2	3	–	3d ³ (² G)4p	v ³ G ^o	4	0.2	91FOR
41 124.5	2431.641	8	3d ⁴	³ F2	2	–	3d ³ (² G)4p	v ³ G ^o	3	0.2	91FOR
41 500.7	2409.600	9	3d ³ (⁴ F)4p	w ³ F ^o	2	–	3d ⁴	b ³ G	3	0.2	91FOR
41 562.2	2406.030	10	3d ³ (² F)4s	³ F	2	–	3d ² (³ F)4s4p(¹ P ^o)	y ³ G ^o	3	0.2	91FOR
45 028.1	2220.836	11	3d ⁴	³ H	6	–	3d ³ (² G)4p	v ³ G ^o	5	0.2	91FOR
45 092.5	2217.664	11	3d ⁴	³ H	5	–	3d ³ (² G)4p	v ³ G ^o	4	0.2	91FOR
45 259.0	2209.505	10	3d ⁴	³ H	4	–	3d ³ (² G)4p	v ³ G ^o	3	0.2	91FOR
45 552.0	2195.291	40	3d ³ (² D2)4s	b ¹ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ F ^o	3	0.2	91FOR
46 994.8	2127.896	9	3d ³ (² D1)4s	¹ D	2	–	3d ³ (² D2)4p	u ¹ D ^o	2	0.3	91FOR
47 098.0	2123.233	9	3d ² 4s(4F)5s	e ³ F	2	–	3d ³ (² D2)4p	s ³ D ^o	1	0.3	91FOR
47 719.1	2095.596	10	3d ³ (² G)4p	v ³ G ^o	5	–	3d ³ (⁴ F)5s	f ³ F	4	0.3	91FOR
47 965.9	2084.814	11	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	2	–	3d ⁴	b ³ G	3	0.3	91FOR
48 693.0	2053.683	12	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	–	3d ⁴	b ³ G	4	0.3	91FOR
49 169.4	2033.785	57	3d ³ (² D2)4s	a ³ D	3	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	4	0.3	91FOR
49 225.5	2031.468	9	3d ⁴	³ F1	4	–	3d ³ (⁴ F)5p	³ F ^o	4	0.3	91FOR
49 358.9	2025.977	9	3d ² 4s(4F)5s	e ³ F	3	–	3d ³ (² D2)4p	s ³ D ^o	2	0.3	91FOR
49 428.2	2023.136	10	3d ³ (² G)4p	v ³ G ^o	4	–	3d ³ (⁴ F)5s	f ³ F	3	0.3	91FOR
49 546.7	2018.299	46	3d ³ (² P)4s	a ¹ P	1	–	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.3	91FOR
50 056.9	1997.725	40	3d ³ (² D2)4s	a ³ D	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.3	91FOR
50 106.7	1995.741	12	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	–	3d ⁴	b ³ G	5	0.3	91FOR
50 295.5	1988.251	12	3d ³ (² F)4s	³ F	4	–	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	4	0.3	91FOR
50 330.6	1986.863	9	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	3	–	3d ⁴	b ³ G	3	0.3	91FOR
50 485.3	1980.776	39	3d ³ (² P)4s	b ³ P	2	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	3	0.3	91FOR
50 713.5	1971.862	9	3d ³ (² G)4p	v ³ G ^o	3	–	3d ³ (⁴ F)5s	f ³ F	2	0.3	91FOR
51 097.0	1957.063	9	3d ⁴	³ F1	3	–	3d ³ (⁴ F)5p	³ F ^o	3	0.3	91FOR
51 191.4	1953.455	29	3d ³ (² D2)4s	a ³ D	1	–	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.3	91FOR
51 423.0	1944.654	19	3d ³ (² P)4s	b ³ P	1	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.3	91FOR
51 483.8	1942.360	12	3d ³ (² P)4s	b ³ P	0	–	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.3	91FOR
51 524.4	1940.828	9	3d ² 4s(4F)4d	³ H	4	–	3d ² 4s(4F)5p	³ G ^o	3	0.3	91FOR
51 652.2	1936.027	9	3d ² 4s(4F)5p	r ³ F ^o	2	–	3d ² 4s(2F)4d	³ G	3	0.3	91FOR

TABLE 3. Spectral lines of Ti I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
51 720.1	1933.485	9	3d ³ (² D)4p	u ³ F ^o	4	—	3d ³ (⁴ F)5s	f ³ F	4	0.3	91FOR
51 886.2	1927.296	9	3d ² (¹ G)4s4p(³ P ^o)	v ³ F ^o	4	—	3d ⁴	b ³ G	4	0.3	91FOR
52 206.6	1915.468	9	3d ² 4s(⁴ F)5p	r ³ F ^o	3	—	3d ² 4s(² F)4d	³ G	4	0.3	91FOR
52 655.7	1899.131	13	3d ³ (² D)4s	a ³ D	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	2	0.3	91FOR
52 713.1	1897.062	9	3d ³ (² D)4p	u ³ F ^o	3	—	3d ³ (⁴ F)5s	f ³ F	3	0.3	91FOR
52 890.9	1890.683	9	3d ² 4s(⁴ F)5s	e ³ F	4	—	3d ³ (² D)4p	s ³ D ^o	3	0.3	91FOR
52 937.8	1889.010	9	3d ² 4s(⁴ F)4d	³ H	5	—	3d ² 4s(⁴ F)5p	³ G ^o	4	0.3	91FOR
53 039.3	1885.396	9	3d ² 4s(⁴ F)5p	r ³ F ^o	4	—	3d ² 4s(² F)4d	³ G	5	0.3	91FOR
53 152.2	1881.389	13	3d ³ (² D)4s	a ³ D	3	—	3d ² (³ F)4s4p(³ P ^o)	z ³ F ^o	3	0.3	91FOR
53 291.8	1876.463	10	3d ³ (² P)4s	b ³ P	1	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	1	0.3	91FOR
53 426.1	1871.745	66	3d ³ (² D)4s	b ¹ D	2	—	3d ² (³ F)4s4p(³ P ^o)	z ¹ D ^o	2	0.3	91FOR
53 741.7	1860.752	9	3d ³ (² P)4s	b ³ P	2	—	3d ² (³ F)4s4p(³ P ^o)	z ³ D ^o	2	0.3	91FOR
54 194.4	1845.210	7	3d ² 4s(⁴ F)4d	³ H	6	—	3d ² 4s(⁴ F)5p	³ G ^o	5	0.4	91FOR
54 821.5	1824.103	3	3d ³ (² F)4s	³ F	3	—	3d ² (¹ D)4s4p(³ P ^o)	x ³ F ^o	3	0.4	91FOR

TABLE 4. Energy levels of Ti II

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages			
0.0000	0.0006	0	3d ² (³ F)4s	a ⁴ F	3/2	100				
94.1142	0.0012	0	3d ² (³ F)4s	a ⁴ F	5/2	100				
225.7039	0.0006	0	3d ² (³ F)4s	a ⁴ F	7/2	100				
393.4459	0.0007	0	3d ² (³ F)4s	a ⁴ F	9/2	100				
4628.6571	0.0017	0	3d ² (³ F)4s	a ² F	5/2	99				
4897.7179	0.0006	0	3d ² (³ F)4s	a ² F	7/2	99				
8710.5675	0.0007	0	3d ² (¹ D)4s	a ² D	3/2	0.80	72	17	3d ³	b ² D2
8744.3406	0.0007	0	3d ² (¹ D)4s	a ² D	5/2		74	16	3d ³	b ² D2
9872.899	0.003	0	3d ² (³ P)4s	b ⁴ P	1/2	2.60	90			
9930.7766	0.0007	0	3d ² (³ P)4s	b ⁴ P	3/2		72	18	3d ³	a ² P
10024.8009	0.0007	0	3d ² (³ P)4s	b ⁴ P	5/2		99			
15 257.5527	0.0009	0	3d ² (¹ G)4s	b ² G	9/2		96			
15 265.7001	0.0010	0	3d ² (¹ G)4s	b ² G	7/2		96			
16 515.9359	0.0014	0	3d ² (³ P)4s	b ² P	1/2	0.66	72	28	3d ³	a ² P
16 625.2441	0.0009	0	3d ² (³ P)4s	b ² P	3/2	1.33	72	28	3d ³	a ² P
31 787.934	0.003	0	3d ² (¹ S)4s	a ² S	1/2		100			
907.9672	0.0008	0	3d ³	b ⁴ F	3/2		100			
983.9157	0.0006	0	3d ³	b ⁴ F	5/2		100			
1087.3561	0.0006	0	3d ³	b ⁴ F	7/2		100			
1215.8329	0.0007	0	3d ³	b ⁴ F	9/2		100			
8997.7874	0.0009	0	3d ³	a ² G	7/2		96			
9118.2849	0.0011	0	3d ³	a ² G	9/2		96			
9363.7425	0.0012	0	3d ³	a ⁴ P	1/2	2.63	96			
9395.8020	0.0016	0	3d ³	a ⁴ P	3/2	1.74	93			
9518.1516	0.0011	0	3d ³	a ⁴ P	5/2		100			
9851.0145	0.0010	0	3d ³	a ² P	1/2	0.66	62	24	3d ² (³ P)4s	b ² P
9975.9994	0.0007	0	3d ³	a ² P	3/2	1.33	48	27	3d ² (³ P)4s	b ⁴ P
12 628.8455	0.0009	0	3d ³	b ² D2	3/2		53	26	3d ² (¹ D)4s	a ² D
12 677.1050	0.0012	0	3d ³	a ² H	9/2		100			
12 758.2597	0.0007	0	3d ³	b ² D2	5/2		54	24	3d ² (¹ D)4s	a ² D
12 774.8168	0.0013	0	3d ³	a ² H	11/2		100			
20 891.7898	0.0011	0	3d ³	b ² F	7/2		99			
20 951.7551	0.0014	0	3d ³	b ² F	5/2		99			
32 275.4863	0.0016	0	3d ³	d ² D1	3/2		58	25	3d4s ²	c ² D
32 332.9031	0.0010	0	3d ³	d ² D1	5/2		57	27	3d4s ²	c ² D
24 961.1910	0.0009	0	3d4s ²	c ² D	3/2		73	14	3d ³	d ² D1
25 192.9650	0.0013	0	3d4s ²	c ² D	5/2		71	15	3d ³	d ² D1
29 544.4540	0.0006	1	3d ² (³ F)4p	z ⁴ G ^o	5/2		98			

TABLE 4. Energy levels of Ti II—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages			
29 734.6206	0.0007	1	3d ² (³ F)4p	z ⁴ G ^o	7/2	99				
29 968.3304	0.0007	1	3d ² (³ F)4p	z ⁴ G ^o	9/2	100				
30 240.9396	0.0009	1	3d ² (³ F)4p	z ⁴ G ^o	11/2	100				
30 836.4250	0.0007	1	3d ² (³ F)4p	z ⁴ F ^o	3/2	97				
30 958.5846	0.0006	1	3d ² (³ F)4p	z ⁴ F ^o	5/2	98				
31 113.6764	0.0006	1	3d ² (³ F)4p	z ⁴ F ^o	7/2	98				
31 207.5111	0.0007	1	3d ² (³ F)4p	z ² F ^o	5/2	85				
31 301.0653	0.0007	1	3d ² (³ F)4p	z ⁴ F ^o	9/2	99				
31 490.9177	0.0006	1	3d ² (³ F)4p	z ² F ^o	7/2	88				
31 756.6406	0.0009	1	3d ² (³ F)4p	z ² D ^o	3/2	0.92	82			
32 025.5915	0.0007	1	3d ² (³ F)4p	z ² D ^o	5/2	1.20	77			
32 532.3542	0.0008	1	3d ² (³ F)4p	z ⁴ D ^o	1/2	0.00	97			
32 602.6265	0.0006	1	3d ² (³ F)4p	z ⁴ D ^o	3/2	1.20	94			
32 698.1022	0.0006	1	3d ² (³ F)4p	z ⁴ D ^o	5/2	1.37	90			
32 767.1961	0.0010	1	3d ² (³ F)4p	z ⁴ D ^o	7/2		96			
34 543.3799	0.0008	1	3d ² (³ F)4p	z ² G ^o	7/2		95			
34 748.5062	0.0008	1	3d ² (³ F)4p	z ² G ^o	9/2		95			
37 430.6814	0.0007	1	3d ² (³ P)4p	z ² S ^o	1/2	2.09	99			
39 233.4153	0.0007	1	3d ² (¹ D)4p	z ² P ^o	3/2		58	36	3d ² (¹ D)4p	y ² D ^o
39 476.9244	0.0007	1	3d ² (¹ D)4p	y ² D ^o	5/2		55	25	3d ² (¹ D)4p	y ² F ^o
39 602.8645	0.0007	1	3d ² (¹ D)4p	y ² D ^o	3/2	1.21	48	36	3d ² (¹ D)4p	z ² P ^o
39 674.7616	0.0009	1	3d ² (¹ D)4p	z ² P ^o	1/2		98			
39 926.8192	0.0008	1	3d ² (¹ D)4p	y ² F ^o	5/2		63	25	3d ² (¹ D)4p	y ² D ^o
40 027.2001	0.0008	1	3d ² (³ P)4p	z ⁴ S ^o	3/2		95			
40 074.6707	0.0007	1	3d ² (¹ D)4p	y ² F ^o	7/2		85			
40 330.3168	0.0011	1	3d ² (³ P)4p	y ⁴ D ^o	1/2		97			
40 425.7183	0.0011	1	3d ² (³ P)4p	y ⁴ D ^o	3/2		96			
40 581.6301	0.0007	1	3d ² (³ P)4p	y ⁴ D ^o	5/2		96			
40 798.4333	0.0009	1	3d ² (³ P)4p	y ⁴ D ^o	7/2		93			
41 996.7498	0.0012	1	3d ² (³ P)4p	z ⁴ P ^o	1/2		97			
42 068.8481	0.0018	1	3d ² (³ P)4p	z ⁴ P ^o	3/2		97			
42 208.8232	0.0010	1	3d ² (³ P)4p	z ⁴ P ^o	5/2		97			
43 740.7678	0.0017	1	3d ² (¹ G)4p	y ² G ^o	7/2		95			
43 780.9533	0.0008	1	3d ² (¹ G)4p	y ² G ^o	9/2		95			
44 902.4455	0.0008	1	3d ² (³ P)4p	x ² D ^o	5/2		82			
44 914.8733	0.0009	1	3d ² (³ P)4p	x ² D ^o	3/2		80			
45 472.4518	0.0009	1	3d ² (³ P)4p	y ² P ^o	1/2		95			
45 548.9273	0.0009	1	3d ² (³ P)4p	y ² P ^o	3/2		94			
45 673.7641	0.0014	1	3d ² (¹ G)4p	z ² H ^o	9/2		99			
45 908.6592	0.0011	1	3d ² (¹ G)4p	z ² H ^o	11/2		100			
47 466.7479	0.0009	1	3d ² (¹ G)4p	x ² F ^o	7/2		91			
47 625.0485	0.0011	1	3d ² (¹ G)4p	x ² F ^o	5/2		92			
63 276.867	0.004	1	3d ² (¹ S)4p	² P ^o	1/2		76	20	3d(² D)4s4p(³ P ^o)	² P ^o
63 375.321	0.003	1	3d ² (¹ S)4p	² P ^o	3/2		81	16	3d(² D)4s4p(³ P ^o)	² P ^o
52 329.889	0.003	1	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2		95			
52 339.242	0.003	1	3d(² D)4s4p(³ P ^o)	⁴ D ^o	1/2		97			
52 459.395	0.003	1	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2		94			
52 471.895	0.002	1	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2		93			
52 630.881	0.002	1	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2		91			
52 705.2416	0.0016	1	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2		94			
52 847.1337	0.0016	1	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2		92			
53 096.556	0.003	1	3d(² D)4s4p(³ P ^o)	⁴ F ^o	9/2		99			
53 554.9903	0.0015	1	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2		88			
53 597.2664	0.0015	1	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2		88			
56 223.205	0.002	1	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	1/2		97			
56 249.2448	0.0020	1	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2		97			
56 326.1371	0.0016	1	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2		97			
59 322.173	0.002	1	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2		94			
59 387.976	0.004	1	3d(² D)4s4p(³ P ^o)	² P ^o	3/2		83	16	3d(² S)4p	² P ^o
59 440.190	0.003	1	3d(² D)4s4p(³ P ^o)	² P ^o	1/2		79	20	3d(¹ S)4p	² P ^o
59 468.374	0.002	1	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2		95			
69 327.5102	0.0019	1	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2		65	31	3d(² F)5p	² D ^o
69 622.3000	0.0013	1	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2		65	31	3d(² F)5p	² D ^o

TABLE 4. Energy levels of Ti II—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages		
70 605.9514	0.0015	1	3d ² (² D)4s4p(¹ P ^o)	v ² F ^o	5/2	41	54	3d ² (³ F)5p	² F ^o
70 892.6160	0.0012	1	3d ² (² D)4s4p(¹ P ^o)	v ² F ^o	7/2	41	54	3d ² (³ F)5p	² F ^o
73 628.043	0.002	1	3d ² (² D)4s4p(¹ P ^o)	² P ^o	1/2	86			
74 378.721	0.003	1	3d ² (² D)4s4p(¹ P ^o)	² P ^o	3/2				
62 180.4011	0.0007	0	3d ² (³ F)5s	e ⁴ F	3/2	100			
62 272.3881	0.0006	0	3d ² (³ F)5s	e ⁴ F	5/2	99			
62 410.9628	0.0006	0	3d ² (³ F)5s	e ⁴ F	7/2	99			
62 595.1650	0.0007	0	3d ² (³ F)5s	e ⁴ F	9/2	100			
63 169.0910	0.0010	0	3d ² (³ F)5s	e ² F	5/2	99			
63 446.0264	0.0008	0	3d ² (³ F)5s	e ² F	7/2	99			
70 806.2161	0.0008	0	3d ² (¹ D)5s	² D	5/2				
70 809.3378	0.0009	0	3d ² (¹ D)5s	² D	3/2				
72 599.0930	0.0017	0	3d ² (³ P)5s	⁴ P	1/2				
72 660.8635	0.0012	0	3d ² (³ P)5s	⁴ P	3/2				
72 761.7101	0.0014	0	3d ² (³ P)5s	⁴ P	5/2				
73 437.2269	0.0017	0	3d ² (³ P)5s	² P	1/2				
73 553.8175	0.0014	0	3d ² (³ P)5s	² P	3/2				
76 598.492	0.002	0	3d ² (¹ G)5s	² G	7/2				
76 599.8564	0.0016	0	3d ² (¹ G)5s	² G	9/2				
64 886.6693	0.0010	0	3d ² (³ F)4d	e ⁴ G	5/2	96			
64 979.2810	0.0008	0	3d ² (³ F)4d	e ⁴ G	7/2	95			
65 095.9741	0.0008	0	3d ² (³ F)4d	e ⁴ G	9/2	93			
65 186.8680	0.0009	0	3d ² (³ F)4d	e ⁴ H	7/2	96			
65 214.1729	0.0010	0	3d ² (³ F)4d	⁴ D	1/2	99			
65 243.6290	0.0008	0	3d ² (³ F)4d	e ⁴ G	11/2	93			
65 274.8247	0.0008	0	3d ² (³ F)4d	⁴ D	3/2	99			
65 308.4355	0.0009	0	3d ² (³ F)4d	e ⁴ H	9/2	93			
65 314.4599	0.0011	0	3d ² (³ F)4d	f ² F	5/2				
65 397.7388	0.0008	0	3d ² (³ F)4d	⁴ D	5/2	80	18		
65 446.3822	0.0009	0	3d ² (³ F)4d	e ⁴ H	11/2	93			
65 460.1706	0.0008	0	3d ² (³ F)4d	⁴ D	7/2	51	47	3d ² (³ F)4d	f ² F
65 590.4928	0.0014	0	3d ² (³ F)4d	e ⁴ H	13/2	100			
65 598.8926	0.0008	0	3d ² (³ F)4d	f ² F	7/2	49	49	3d ² (³ F)4d	⁴ D
66 521.210	0.003	0	3d ² (³ F)4d	² P	1/2	93			
66 794.2052	0.0016	0	3d ² (³ F)4d	² P	3/2	91			
67 437.5295	0.0015	0	3d ² (³ F)4d	⁴ P	1/2				
67 549.2547	0.0012	0	3d ² (³ F)4d	⁴ P	3/2				
67 606.1621	0.0013	0	3d ² (³ F)4d	e ² G	7/2	91			
67 699.4431	0.0011	0	3d ² (³ F)4d	⁴ P	5/2				
67 822.5867	0.0018	0	3d ² (³ F)4d	e ² G	9/2	91			
68 331.1599	0.0013	0	3d ² (³ F)4d	e ² H	9/2	95			
68 364.5454	0.0016	0	3d ² (³ F)4d	² D	3/2	86	11	3d ² (¹ D)4d	² D
68 482.5767	0.0011	0	3d ² (³ F)4d	² D	5/2	85	12	3d ² (¹ D)4d	² D
68 584.4792	0.0015	0	3d ² (³ F)4d	e ² H	11/2	95			
68 769.3365	0.0012	0	3d ² (³ F)4d	f ⁴ F	3/2	96			
68 846.699	0.005	0	3d ² (³ F)4d	f ⁴ F	5/2	96			
68 952.1302	0.0009	0	3d ² (³ F)4d	f ⁴ F	7/2	96			
69 084.6309	0.0011	0	3d ² (³ F)4d	f ⁴ F	9/2	96			
73 375.538	0.005	0	3d ² (¹ D)4d	² S	1/2				
73 975.618	0.002	0	3d ² (¹ D)4d	² F	5/2				
74 063.7771	0.0018	0	3d ² (¹ D)4d	² F	7/2				
74 213.6741	0.0014	0	3d ² (¹ D)4d	² P	3/2				
74 436.599	0.002	0	3d ² (¹ D)4d	² P	1/2				
74 908.058	0.003	0	3d ² (¹ D)4d	² G	9/2				
74 910.8726	0.0020	0	3d ² (¹ D)4d	² G	7/2				
75 825.1131	0.0019	0	3d ² (¹ D)4d	² D	3/2				
75 981.346	0.002	0	3d ² (¹ D)4d	² D	5/2				
76 285.981	0.002	0	3d ² (³ P)4d	⁴ F	3/2				
76 296.292	0.004	0	3d ² (³ P)4d	⁴ D	1/2				
76 311.242	0.004	0	3d ² (³ P)4d	⁴ F	5/2				
76 345.1973	0.0017	0	3d ² (³ P)4d	⁴ D	7/2				
76 358.7220	0.0016	0	3d ² (³ P)4d	⁴ D	3/2				
76 407.7595	0.0016	0	3d ² (³ P)4d	⁴ D	5/2				

TABLE 4. Energy levels of Ti II—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages				
76 441.3150	0.0017	0	3d ² (³ P)4d	⁴ F	7/2						
76 496.2220	0.0015	0	3d ² (³ P)4d	⁴ F	9/2						
77 335.2729	0.0019	0	3d ² (³ P)4d	² F	5/2						
77 359.019	0.002	0	3d ² (³ P)4d	² F	7/2						
77 741.1809	0.0011	0	3d ² (³ P)4d	⁴ P	3/2						
77 753.0000	0.0015	0	3d ² (³ P)4d	⁴ P	1/2						
77 807.7864	0.0017	0	3d ² (³ P)4d	⁴ P	5/2						
77 937.4445	0.0013	0	3d ² (³ P)4d	² P	1/2						
78 058.1017	0.0014	0	3d ² (³ P)4d	² P	3/2						
78 543.8893	0.0015	0	3d ² (³ P)4d	² D	5/2						
78 595.8371	0.0016	0	3d ² (³ P)4d	² D	3/2						
80 076.398	0.002	0	3d ² (¹ G)4d	² G	7/2						
80 113.1209	0.0018	0	3d ² (¹ G)4d	² G	9/2						
80 788.150	0.002	0	3d ² (¹ G)4d	² H	9/2						
80 829.6682	0.0018	0	3d ² (¹ G)4d	² H	11/2						
82 241.662	0.003	0	3d ² (¹ G)4d	² F	5/2						
82 243.0637	0.0017	0	3d ² (¹ G)4d	² F	7/2						
83 661.0179	0.0020	0	3d ² (¹ G)4d	² D	5/2						
83 666.406	0.007	0	3d ² (¹ G)4d	² D	3/2						
71 461.7932	0.0009	1	3d ² (³ F)5p	⁴ G ^o	5/2	98					
71 586.2514	0.0008	1	3d ² (³ F)5p	⁴ G ^o	7/2	99					
71 728.4971	0.0011	1	3d ² (³ F)5p	⁴ F ^o	3/2	100					
71 747.6684	0.0008	1	3d ² (³ F)5p	⁴ G ^o	9/2	100					
71 825.9911	0.0008	1	3d ² (³ F)5p	⁴ F ^o	5/2	99					
71 946.0817	0.0011	1	3d ² (³ F)5p	⁴ G ^o	11/2	100					
71 960.4326	0.0009	1	3d ² (³ F)5p	⁴ F ^o	7/2	99					
72 126.9130	0.0007	1	3d ² (³ F)5p	⁴ F ^o	9/2	99					
72 270.5521	0.0013	1	3d ² (³ F)5p	⁴ D ^o	1/2	100					
72 338.2060	0.0009	1	3d ² (³ F)5p	⁴ D ^o	3/2	99					
72 451.6968	0.0008	1	3d ² (³ F)5p	⁴ D ^o	5/2	99					
72 608.9742	0.0009	1	3d ² (³ F)5p	⁴ D ^o	7/2	99					
72 884.5221	0.0013	1	3d ² (³ F)5p	² G ^o	7/2	99					
73 133.5489	0.0014	1	3d ² (³ F)5p	² G ^o	9/2	99					
73 522.8997	0.0014	1	3d ² (³ F)5p	² F ^o	5/2	45	51	3d(² D)4s4p(¹ P ^o)	v	² F ^o	
73 800.7705	0.0013	1	3d ² (³ F)5p	² F ^o	7/2	44	52	3d(² D)4s4p(¹ P ^o)	v	² F ^o	
73 950.1912	0.0015	1	3d ² (³ F)5p	² D ^o	3/2						
74 645.2073	0.0019	1	3d ² (³ F)5p	² D ^o	5/2	67	27	3d(² D)4s4p(¹ P ^o)	v	² D ^o	
80 188.3226	0.0017	1	3d ² (¹ D)5p	² F ^o	5/2						
80 268.0717	0.0016	1	3d ² (¹ D)5p	² F ^o	7/2						
82 111.809	0.003	1	3d ² (³ P)5p	⁴ D ^o	5/2						
82 316.4935	0.0018	1	3d ² (³ P)5p	⁴ D ^o	7/2						
81 627.830	0.002	1	3d ² (³ F)4f	⁴ H ^o	7/2						
81 676.4409	0.0019	1	3d ² (³ F)4f	⁴ H ^o	9/2						
81 685.979	0.002	1	3d ² (³ F)4f	² G ^o	7/2						
81 724.330	0.002	1	3d ² (³ F)4f	⁴ G ^o	5/2						
81 738.2883	0.0018	1	3d ² (³ F)4f	⁴ I ^o	9/2						
81 754.1387	0.0015	1	3d ² (³ F)4f	⁴ H ^o	11/2						
81 771.556	0.002	1	3d ² (³ F)4f	⁴ D ^o	3/2						
81 774.158	0.002	1	3d ² (³ F)4f	⁴ D ^o	5/2						
81 842.2440	0.0013	1	3d ² (³ F)4f	² G ^o	9/2						
81 861.0276	0.0020	1	3d ² (³ F)4f	⁴ G ^o	7/2						
81 867.876	0.003	1	3d ² (³ F)4f	⁴ F ^o	3/2						
81 889.5772	0.0017	1	3d ² (³ F)4f	⁴ I ^o	11/2						
81 913.0457	0.0017	1	3d ² (³ F)4f	⁴ F ^o	7/2						
81 919.6886	0.0015	1	3d ² (³ F)4f	⁴ I ^o	13/2						
81 924.127	0.002	1	3d ² (³ F)4f	² H ^o	9/2						
81 943.4136	0.0020	1	3d ² (³ F)4f	⁴ F ^o	5/2						
81 997.005	0.005	1	3d ² (³ F)4f	² F ^o	5/2						
82 001.109	0.002	1	3d ² (³ F)4f	² I ^o	11/2						
82 065.643	0.006	1	3d ² (³ F)4f	² P ^o	1/2						
82 073.0114	0.0013	1	3d ² (³ F)4f	⁴ H ^o	13/2						
82 078.561	0.003	1	3d ² (³ F)4f	⁴ G ^o	9/2						
82 103.1876	0.0015	1	3d ² (³ F)4f	⁴ G ^o	11/2						

TABLE 4. Energy levels of Ti II—Continued

Energy level (cm ⁻¹)	Uncertainty (cm ⁻¹)	Parity	Configuration	Term	J	g _j	Leading percentages
82 134.1565	0.0019	1	3d ² (³ F)4f	⁴ D ^o	7/2		
82 147.7069	0.0016	1	3d ² (³ F)4f	⁴ F ^o	9/2		
82 151.461	0.002	1	3d ² (³ F)4f	² F ^o	7/2		
82 164.075	0.002	1	3d ² (³ F)4f	⁴ I ^o	15/2		
82 183.471	0.002	1	3d ² (³ F)4f	² H ^o	11/2		
82 246.515	0.003	1	3d ² (³ F)4f	⁴ P ^o	5/2		
82 284.367	0.002	1	3d ² (³ F)4f	² I ^o	13/2		
82 319.068	0.003	1	3d ² (³ F)4f	² D ^o	5/2		
82 370.216	0.004	1	3d ² (³ F)4f	⁴ S ^o	3/2		
82 839.341	0.008	0	3d ² (³ F)6s	⁴ F	3/2		
82 914.301	0.005	0	3d ² (³ F)6s	⁴ F	5/2		
83 058.538	0.004	0	3d ² (³ F)6s	⁴ F	7/2		
83 245.315	0.004	0	3d ² (³ F)6s	² F	5/2		
83 257.2496	0.0019	0	3d ² (³ F)6s	⁴ F	9/2		
83 519.365	0.003	0	3d ² (³ F)6s	² F	7/2		
84 268.971	0.003	0	3d ² (³ F)5d	⁴ G	5/2		
84 360.507	0.004	0	3d ² (³ F)5d	⁴ G	7/2		
84 369.880	0.003	0	3d ² (³ F)5d	⁴ H	7/2		
84 490.976	0.004	0	3d ² (³ F)5d	⁴ G	9/2		
84 510.157	0.012	0	3d ² (³ F)5d	⁴ D	3/2		
84 512.7943	0.0020	0	3d ² (³ F)5d	⁴ H	9/2		
84 632.249	0.003	0	3d ² (³ F)5d	⁴ H	11/2		
84 644.617	0.004	0	3d ² (³ F)5d	⁴ D	5/2		
84 652.443	0.004	0	3d ² (³ F)5d	⁴ D	7/2		
84 722.279	0.002	0	3d ² (³ F)5d	⁴ H	13/2		

TABLE 5. Sources of Ti II lines

Source	Number of classifications	Light source/spectrometers ^a	Wavelength range (Å)	Uncertainty (Å)
28KIE	2	Vacuum arc/Fabry-Perot interferometer	3685	0.010
82HUL/JOH	115	Pulsed hollow cathode/3-m Czerny-Turner spectrograph	2537–9567	0.02
82HUL/JOH2	311	Pulsed hollow cathode/3-m NI VS	1229–2482	0.02
98ALL/GAR	10	The sun/FTS	4174–6607	0.0016–0.003
01PIC/THO	16	Hollow cathode lamp/20-cm FTS	2473–4457	0.002–0.006
09ALD	5	Hollow cathode lamp/20-cm FTS	3066–3384	0.0001 or 0.0002
10ZAP/JOH	1376	Hollow cathode lamp/1-m FTS and 20-cm FTS	1797–21983	0.0002–0.03

^aAbbreviations used: FTS means Fourier transform spectrometer. VS means vacuum spectrograph. NI means normal incidence.

TABLE 6. Spectral lines of Ti II

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
1229.48	81 335.0	0	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	² D ^o	5/2	0.02	82HUL/JOH2
1232.02	81 167.4	0	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	² F ^o	7/2	0.02	82HUL/JOH2
1233.04	81 100.5	2	3d ³	b ⁴ F	9/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.02	82HUL/JOH2
1233.22	81 088.8	0	3d ³	b ⁴ F	3/2	–	3d ² (³ F)4f	² F ^o	5/2	0.02	82HUL/JOH2
1233.59	81 064.0	2	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	² F ^o	7/2	0.02	82HUL/JOH2
1233.86	81 046.7	1	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	⁴ D ^o	7/2	0.02	82HUL/JOH2
1234.37	81 012.9	2	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	² F ^o	5/2	0.02	82HUL/JOH2
1234.70	80 991.1	4	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	⁴ G ^o	9/2	0.02	82HUL/JOH2
1235.06	80 967.5	1	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	² H ^o	11/2	0.02	82HUL/JOH2
1235.18	80 959.7	1*	3d ³	b ⁴ F	3/2	–	3d ² (³ F)4f	⁴ F ^o	3/2	0.02	82HUL/JOH2
1235.18	80 959.7	1*	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	⁴ F ^o	5/2	0.02	82HUL/JOH2
1235.61	80 931.7	4	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	⁴ F ^o	9/2	0.02	82HUL/JOH2

TABLE 6. Spectral lines of Ti II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
1235.82	80 918.1	0	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	⁴ D°	7/2	0.02	82HUL/JOH2
1236.29	80 887.2	4	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	⁴ G°	11/2	0.02	82HUL/JOH2
1236.45	80 877.0	3	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	⁴ G°	7/2	0.02	82HUL/JOH2
1236.67	80 862.6	1*	3d ³	b ⁴ F	3/2	–	3d ² (³ F)4f	⁴ D°	3/2	0.02	82HUL/JOH2
1236.67	80 862.6	1*	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	⁴ G°	9/2	0.02	82HUL/JOH2
1236.77	80 855.9	0	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	⁴ F°	5/2	0.02	82HUL/JOH2
1237.06	80 836.7	2	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	² H°	9/2	0.02	82HUL/JOH2
1237.23	80 825.6	1	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	⁴ F°	7/2	0.02	82HUL/JOH2
1237.38	80 816.2	2	3d ³	b ⁴ F	3/2	–	3d ² (³ F)4f	⁴ G°	5/2	0.02	82HUL/JOH2
1237.78	80 790.1	1	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	⁴ D°	5/2	0.02	82HUL/JOH2
1238.03	80 773.6	0	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	⁴ G°	7/2	0.02	82HUL/JOH2
1238.32	80 754.8	0	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	² G°	9/2	0.02	82HUL/JOH2
1239.03	80 708.2	0	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	² H°	9/2	0.02	82HUL/JOH2
1239.13	80 701.9	2	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	² G°	7/2	0.02	82HUL/JOH2
1239.56	80 673.7	1	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	⁴ I°	11/2	0.02	82HUL/JOH2
1239.91	80 650.8	0	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	⁴ I°	9/2	0.02	82HUL/JOH2
1240.02	80 643.7	0	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4f	⁴ H°	7/2	0.02	82HUL/JOH2
1240.29	80 626.2	0	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	² G°	9/2	0.02	82HUL/JOH2
1240.72	80 598.5	0	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	² G°	7/2	0.02	82HUL/JOH2
1240.86	80 589.0	2	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4f	⁴ H°	9/2	0.02	82HUL/JOH2
1241.65	80 538.1	1	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4f	⁴ H°	11/2	0.02	82HUL/JOH2
1366.99	73 153.6	0	3d ³	a ² G	7/2	–	3d ² (³ F)4f	² F°	7/2	0.02	82HUL/JOH2
1368.35	73 080.7	1	3d ³	a ² G	7/2	–	3d ² (³ F)4f	⁴ G°	9/2	0.02	82HUL/JOH2
1368.64	73 065.1	3	3d ³	a ² G	9/2	–	3d ² (³ F)4f	² H°	11/2	0.02	82HUL/JOH2
1369.24	73 033.1	0	3d ³	a ² G	9/2	–	3d ² (³ F)4f	² F°	7/2	0.02	82HUL/JOH2
1369.57	73 015.7	0	3d ³	a ² G	9/2	–	3d ² (³ F)4f	⁴ D°	7/2	0.02	82HUL/JOH2
1370.61	72 960.2	2	3d ³	a ² G	9/2	–	3d ² (³ F)4f	⁴ G°	9/2	0.02	82HUL/JOH2
1370.89	72 945.5	0	3d ³	a ² G	7/2	–	3d ² (³ F)4f	⁴ F°	5/2	0.02	82HUL/JOH2
1371.25	72 926.3	2	3d ³	a ² G	7/2	–	3d ² (³ F)4f	² H°	9/2	0.02	82HUL/JOH2
1371.60	72 907.6	0	3d ² (³ F)4s	a ⁴ F	7/2	–	3d ² (³ F)5p	² G°	9/2	0.02	82HUL/JOH2
1372.44	72 863.1	0	3d ³	a ² G	7/2	–	3d ² (³ F)4f	⁴ G°	7/2	0.02	82HUL/JOH2
1372.65	72 851.9	1	3d ³	a ⁴ P	5/2	–	3d ² (³ F)4f	⁴ S°	3/2	0.02	82HUL/JOH2
1372.79	72 844.4	0	3d ³	a ² G	7/2	–	3d ² (³ F)4f	² G°	9/2	0.02	82HUL/JOH2
1374.17	72 771.2	0	3d ³	a ² G	9/2	–	3d ² (³ F)4f	⁴ I°	11/2	0.02	82HUL/JOH2
1374.75	72 740.4	1	3d ³	a ² G	7/2	–	3d ² (³ F)4f	⁴ I°	9/2	0.02	82HUL/JOH2
1374.98	72 728.3	0	3d ³	a ⁴ P	5/2	–	3d ² (³ F)4f	⁴ P°	5/2	0.02	82HUL/JOH2
1375.07	72 723.8	1	3d ³	a ² G	9/2	–	3d ² (³ F)4f	² G°	9/2	0.02	82HUL/JOH2
1375.74	72 688.1	1	3d ³	a ² G	7/2	–	3d ² (³ F)4f	² G°	7/2	0.02	82HUL/JOH2
1376.73	72 635.7	0	3d ³	a ² G	9/2	–	3d ² (³ F)4f	⁴ H°	11/2	0.02	82HUL/JOH2
1377.11	72 615.9	0	3d ³	a ⁴ P	5/2	–	3d ² (³ F)4f	⁴ D°	7/2	0.02	82HUL/JOH2
1377.39	72 601.1	1	3d ³	a ⁴ P	3/2	–	3d ² (³ F)4f	² F°	5/2	0.02	82HUL/JOH2
1378.41	72 547.6	0	3d ³	a ⁴ P	3/2	–	3d ² (³ F)4f	⁴ F°	5/2	0.02	82HUL/JOH2
1378.95	72 519.2	0	3d ³	a ² P	1/2	–	3d ² (³ F)4f	⁴ S°	3/2	0.02	82HUL/JOH2
1379.23	72 504.1	1	3d ³	a ⁴ P	1/2	–	3d ² (³ F)4f	⁴ F°	3/2	0.02	82HUL/JOH2
1380.73	72 425.2	1	3d ³	a ⁴ P	5/2	–	3d ² (³ F)4f	⁴ F°	5/2	0.02	82HUL/JOH2
1381.31	72 394.9	1	3d ³	a ⁴ P	5/2	–	3d ² (³ F)4f	⁴ F°	7/2	0.02	82HUL/JOH2
1381.63	72 378.3	0	3d ³	a ⁴ P	3/2	–	3d ² (³ F)4f	⁴ D°	5/2	0.02	82HUL/JOH2
1382.58	72 328.5	1	3d ³	a ⁴ P	3/2	–	3d ² (³ F)4f	⁴ G°	5/2	0.02	82HUL/JOH2
1383.69	72 270.3	0	3d ² (³ F)4s	a ⁴ F	3/2	–	3d ² (³ F)5p	⁴ D°	1/2	0.02	82HUL/JOH2
1384.76	72 214.6	1	3d ² (³ F)4s	a ⁴ F	9/2	–	3d ² (³ F)5p	⁴ D°	7/2	0.02	82HUL/JOH2
1385.66	72 167.8	0	3d ³	a ⁴ P	5/2	–	3d ² (³ F)4f	² G°	7/2	0.02	82HUL/JOH2
1387.16	72 089.6	0	3d ³	a ² P	3/2	–	3d ² (³ F)4f	² P°	1/2	0.02	82HUL/JOH2
1397.58	71 552.5	1	3d ² (³ F)4s	a ⁴ F	9/2	–	3d ² (³ F)5p	⁴ G°	11/2	0.02	82HUL/JOH2
1398.18	71 521.8	0	3d ² (³ F)4s	a ⁴ F	7/2	–	3d ² (³ F)5p	⁴ G°	9/2	0.02	82HUL/JOH2
1398.18	71 521.5	1	3d ³	b ⁴ F	7/2	–	3d ² (³ F)5p	⁴ D°	7/2	0.02	82HUL/JOH2
1398.76	71 491.9	0	3d ² (³ F)4s	a ⁴ F	5/2	–	3d ² (³ F)5p	⁴ G°	7/2	0.02	82HUL/JOH2
1399.24	71 467.6	0	3d ³	b ⁴ F	5/2	–	3d ² (³ F)5p	⁴ D°	5/2	0.02	82HUL/JOH2
1399.35	71 461.6	0	3d ² (³ F)4s	a ⁴ F	3/2	–	3d ² (³ F)5p	⁴ G°	5/2	0.02	82HUL/JOH2
1399.97	71 429.9	0	3d ³	b ⁴ F	3/2	–	3d ² (³ F)5p	⁴ D°	3/2	0.02	82HUL/JOH2
1400.70	71 393.0	2	3d ³	b ⁴ F	9/2	–	3d ² (³ F)5p	⁴ D°	7/2	0.02	82HUL/JOH2
1401.26	71 364.2	0	3d ³	b ⁴ F	7/2	–	3d ² (³ F)5p	⁴ D°	5/2	0.02	82HUL/JOH2

TABLE 6. Spectral lines of Ti II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
1401.30	71 362.3	2	3d ³	b ⁴ F	3/2	—	3d ² (³ F)5p	⁴ D ^o	1/2	0.02	82HUL/JOH2
1401.46	71 354.1	1	3d ³	b ⁴ F	5/2	—	3d ² (³ F)5p	⁴ D ^o	3/2	0.02	82HUL/JOH2
1407.67	71 039.4	0	3d ³	b ⁴ F	7/2	—	3d ² (³ F)5p	⁴ F ^o	9/2	0.02	82HUL/JOH2
1408.92	70 976.4	0	3d ³	b ⁴ F	5/2	—	3d ² (³ F)5p	⁴ F ^o	7/2	0.02	82HUL/JOH2
1410.08	70 917.8	0	3d ³	b ⁴ F	3/2	—	3d ² (³ F)5p	⁴ F ^o	5/2	0.02	82HUL/JOH2
1410.22	70 910.9	2	3d ³	b ⁴ F	9/2	—	3d ² (³ F)5p	⁴ F ^o	9/2	0.02	82HUL/JOH2
1410.97	70 873.0	1	3d ³	b ⁴ F	7/2	—	3d ² (³ F)5p	⁴ F ^o	7/2	0.02	82HUL/JOH2
1411.59	70 841.9	1	3d ³	b ⁴ F	5/2	—	3d ² (³ F)5p	⁴ F ^o	5/2	0.02	82HUL/JOH2
1412.02	70 820.6	0	3d ³	b ⁴ F	3/2	—	3d ² (³ F)5p	⁴ F ^o	3/2	0.02	82HUL/JOH2
1413.53	70 744.7	0	3d ³	b ⁴ F	9/2	—	3d ² (³ F)5p	⁴ F ^o	7/2	0.02	82HUL/JOH2
1413.54	70 744.5	0	3d ³	b ⁴ F	5/2	—	3d ² (³ F)5p	⁴ F ^o	3/2	0.02	82HUL/JOH2
1413.66	70 738.5	0	3d ³	b ⁴ F	7/2	—	3d ² (³ F)5p	⁴ F ^o	5/2	0.02	82HUL/JOH2
1413.83	70 730.1	0	3d ³	b ⁴ F	9/2	—	3d ² (³ F)5p	⁴ G ^o	11/2	0.02	82HUL/JOH2
1415.23	70 660.1	0	3d ³	b ⁴ F	7/2	—	3d ² (³ F)5p	⁴ G ^o	9/2	0.02	82HUL/JOH2
1428.23	70 016.5	0	3d ² (³ F)4s	a ² F	5/2	—	3d ² (³ F)5p	² D ^o	5/2	0.02	82HUL/JOH2
1433.69	69 750.1	0	3d ² (³ F)4s	a ² F	5/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
1433.74	69 747.5	5	3d ² (³ F)4s	a ² F	7/2	—	3d ² (³ F)5p	² D ^o	5/2	0.02	82HUL/JOH2
1435.20	69 676.9	0	3d ³	b ⁴ F	9/2	—	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	82HUL/JOH2
1437.59	69 560.8	1	3d ³	b ² D2	5/2	—	3d ² (³ F)4f	² D ^o	5/2	0.02	82HUL/JOH2
1438.65	69 509.5	4	3d ³	a ² H	11/2	—	3d ² (³ F)4f	² I ^o	13/2	0.02	82HUL/JOH2
1440.16	69 436.7	0	3d ³	b ² D2	3/2	—	3d ² (³ F)4f	² P ^o	1/2	0.02	82HUL/JOH2
1440.38	69 426.1	0	3d ³	a ² H	9/2	—	3d ² (³ F)4f	⁴ G ^o	11/2	0.02	82HUL/JOH2
1440.74	69 408.6	1	3d ³	a ² H	11/2	—	3d ² (³ F)4f	² H ^o	11/2	0.02	82HUL/JOH2
1440.89	69 401.5	0	3d ³	a ² H	9/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.02	82HUL/JOH2
1441.06	69 393.2	0	3d ³	b ² D2	5/2	—	3d ² (³ F)4f	² F ^o	7/2	0.02	82HUL/JOH2
1441.42	69 375.9	0	3d ³	b ² D2	5/2	—	3d ² (³ F)4f	⁴ D ^o	7/2	0.02	82HUL/JOH2
1442.50	69 324.0	3	3d ³	a ² H	9/2	—	3d ² (³ F)4f	² I ^o	11/2	0.02	82HUL/JOH2
1442.70	69 314.5	0	3d ³	b ² D2	3/2	—	3d ² (³ F)4f	⁴ F ^o	5/2	0.02	82HUL/JOH2
1443.04	69 298.1	0	3d ³	a ² H	11/2	—	3d ² (³ F)4f	⁴ H ^o	13/2	0.02	82HUL/JOH2
1444.11	69 247.0	0	3d ³	a ² H	9/2	—	3d ² (³ F)4f	² H ^o	9/2	0.02	82HUL/JOH2
1444.83	69 212.5	0	3d ³	a ² H	9/2	—	3d ² (³ F)4f	⁴ I ^o	11/2	0.02	82HUL/JOH2
1445.67	69 172.1	0	3d ² (³ F)4s	a ² F	5/2	—	3d ² (³ F)5p	² F ^o	7/2	0.02	82HUL/JOH2
1446.03	69 154.8	0	3d ³	b ² D2	5/2	—	3d ² (³ F)4f	⁴ F ^o	7/2	0.02	82HUL/JOH2
1446.23	69 145.2	0	3d ³	b ² D2	3/2	—	3d ² (³ F)4f	⁴ D ^o	5/2	0.02	82HUL/JOH2
1446.24	69 144.9	1	3d ³	a ² H	11/2	—	3d ² (³ F)4f	⁴ I ^o	13/2	0.02	82HUL/JOH2
1446.87	69 114.8	0	3d ³	a ² H	11/2	—	3d ² (³ F)4f	⁴ I ^o	11/2	0.02	82HUL/JOH2
1447.66	69 077.0	1	3d ³	a ² H	9/2	—	3d ² (³ F)4f	⁴ H ^o	11/2	0.02	82HUL/JOH2
1447.86	69 067.4	0	3d ³	a ² H	11/2	—	3d ² (³ F)4f	² G ^o	9/2	0.02	82HUL/JOH2
1447.99	69 061.2	0	3d ³	a ² H	9/2	—	3d ² (³ F)4f	⁴ I ^o	9/2	0.02	82HUL/JOH2
1450.04	68 963.4	0	3d ³	a ² H	11/2	—	3d ² (³ F)4f	⁴ I ^o	9/2	0.02	82HUL/JOH2
1451.32	68 903.0	2	3d ² (³ F)4s	a ² F	7/2	—	3d ² (³ F)5p	² F ^o	7/2	0.02	82HUL/JOH2
1451.52	68 893.3	2	3d ² (³ F)4s	a ² F	5/2	—	3d ² (³ F)5p	² F ^o	5/2	0.02	82HUL/JOH2
1509.11	66 264.2	0	3d ² (³ F)4s	a ² F	5/2	—	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	82HUL/JOH2
1515.26	65 995.1	5	3d ² (³ F)4s	a ² F	7/2	—	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	82HUL/JOH2
1517.43	65 900.9	1	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)5p	² D ^o	5/2	0.02	82HUL/JOH2
1522.81	65 668.2	1	3d ² (¹ D)4s	a ² D	3/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
1537.13	65 056.4	0	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)5p	² F ^o	7/2	0.02	82HUL/JOH2
1538.60	64 994.1	1	3d ² (³ F)4s	a ² F	5/2	—	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.02	82HUL/JOH2
1545.00	64 725.0	6	3d ² (³ F)4s	a ² F	7/2	—	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.02	82HUL/JOH2
1545.62	64 699.0	5	3d ² (³ F)4s	a ² F	5/2	—	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
1546.33	64 669.2	0	3d ³	a ² P	3/2	—	3d ² (³ F)5p	² D ^o	5/2	0.02	82HUL/JOH2
1549.72	64 527.8	0	3d ³	a ² P	1/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
1562.13	64 015.1	0	3d ³	a ² G	9/2	—	3d ² (³ F)5p	² G ^o	9/2	0.02	82HUL/JOH2
1563.13	63 974.1	1	3d ³	a ² P	3/2	—	3d ² (³ F)5p	² D ^o	3/2	0.02	82HUL/JOH2
1567.97	63 776.9	3	3d ³	a ² P	1/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
1571.05	63 651.9	0	3d ³	a ² P	3/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
1618.79	61 774.5	1	3d ³	a ² G	9/2	—	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	82HUL/JOH2
1627.94	61 427.2	0	3d ³	b ² F	7/2	—	3d ² (³ F)4f	² D ^o	5/2	0.02	82HUL/JOH2
1629.87	61 354.7	1	3d ³	b ² F	7/2	—	3d ² (³ F)4f	⁴ P ^o	5/2	0.02	82HUL/JOH2
1632.40	61 259.6	0	3d ³	b ² F	7/2	—	3d ² (³ F)4f	² F ^o	7/2	0.02	82HUL/JOH2
1634.20	61 191.9	2	3d ³	b ² D2	5/2	—	3d ² (³ F)5p	² D ^o	3/2	0.02	82HUL/JOH2

TABLE 6. Spectral lines of Ti II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
1634.34	61 186.8	0	3d ³	b ² F	7/2	–	3d ² (³ F)4f	⁴ G ^o	9/2	0.02	82HUL/JOH2
1638.20	61 042.6	0	3d ³	b ² D2	5/2	–	3d ² (³ F)5p	² F ^o	7/2	0.02	82HUL/JOH2
1638.77	61 021.3	0	3d ³	b ² F	7/2	–	3d ² (³ F)4f	⁴ F ^o	7/2	0.02	82HUL/JOH2
1639.37	60 999.1	1	3d ³	b ² D2	3/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
1639.57	60 991.6	0	3d ³	b ² F	5/2	–	3d ² (³ F)4f	⁴ F ^o	5/2	0.02	82HUL/JOH2
1640.68	60 950.4	0	3d ³	b ² F	7/2	–	3d ² (³ F)4f	² G ^o	9/2	0.02	82HUL/JOH2
1641.71	60 912.2	0	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.02	82HUL/JOH2
1641.79	60 909.2	0	3d ³	b ² F	5/2	–	3d ² (³ F)4f	⁴ G ^o	7/2	0.02	82HUL/JOH2
1642.62	60 878.4	3	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.02	82HUL/JOH2
1644.13	60 822.4	0	3d ³	b ² F	5/2	–	3d ² (³ F)4f	⁴ D ^o	5/2	0.02	82HUL/JOH2
1646.52	60 734.2	0	3d ³	b ² F	5/2	–	3d ² (³ F)4f	² G ^o	7/2	0.02	82HUL/JOH2
1649.70	60 617.1	3	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
1650.62	60 583.3	0	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
1656.76	60 358.7	1	3d ³	a ² H	11/2	–	3d ² (³ F)5p	² G ^o	9/2	0.02	82HUL/JOH2
1660.93	60 207.1	1	3d ³	a ² H	9/2	–	3d ² (³ F)5p	² G ^o	7/2	0.02	82HUL/JOH2
1676.54	59 646.7	0	3d ³	a ² P	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.02	82HUL/JOH2
1681.33	59 476.6	0	3d ³	a ² P	1/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
1708.14	58 543.2	4	3d ² (¹ G)4s	b ² G	9/2	–	3d ² (³ F)5p	² F ^o	7/2	0.02	82HUL/JOH2
1708.38	58 535.1	0	3d ² (¹ G)4s	b ² G	7/2	–	3d ² (³ F)5p	² F ^o	7/2	0.02	82HUL/JOH2
1716.55	58 256.3	4	3d ² (¹ G)4s	b ² G	7/2	–	3d ² (³ F)5p	² F ^o	5/2	0.02	82HUL/JOH2
1720.14	58 134.7	2	3d ³	b ² D2	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	82HUL/JOH2
1723.54	58 020.0	2	3d ² (³ P)4s	b ² P	3/2	–	3d ² (³ F)5p	² D ^o	5/2	0.02	82HUL/JOH2
1728.23	57 862.8	1	3d ² (³ P)4s	b ² P	1/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
1731.49	57 753.6	0	3d ² (³ P)4s	b ² P	3/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
1741.12	57 434.2	1	3d ² (³ P)4s	b ² P	1/2	–	3d ² (³ F)5p	² D ^o	3/2	0.02	82HUL/JOH2
1744.44	57 324.9	4	3d ² (³ P)4s	b ² P	3/2	–	3d ² (³ F)5p	² D ^o	3/2	0.02	82HUL/JOH2
1750.96	57 111.5	4	3d ² (³ P)4s	b ² P	1/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
1754.30	57 002.7	1	3d ² (³ P)4s	b ² P	3/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
1758.57	56 864.5	0	3d ³	b ² D2	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.02	82HUL/JOH2
1763.71	56 698.8	0	3d ³	b ² D2	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
1767.74	56 569.4	0	3d ³	b ² D2	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
1797.42 748	55 635.068	18	3d ² (¹ G)4s	b ² G	9/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.00 019	10ZAP/JOH
1797.68	55 627.2	0	3d ² (¹ G)4s	b ² G	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	82HUL/JOH2
1807.00 330	55 340.242	18	3d ² (¹ G)4s	b ² G	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	5/2	0.00 020	10ZAP/JOH
1821.1612	54 910.020	13	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)5d	⁴ D	5/2	0.0003	10ZAP/JOH
1823.51	54 839.4	1	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.02	82HUL/JOH2
1828.35	54 694.1	7	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.02	82HUL/JOH2
1829.3595	54 663.940	5	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)5d	⁴ H	11/2	0.0007	10ZAP/JOH
1830.3197	54 635.264	6	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)5d	⁴ H	7/2	0.0006	10ZAP/JOH
1830.47	54 630.8	3	3d ² (¹ D)4s	a ² D	5/2	–	3d ² (¹ S)4p	² P ^o	3/2	0.02	82HUL/JOH2
1832.4865	54 570.661	5	3d ² (³ F)4s	a ² F	7/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.0007	10ZAP/JOH
1832.64	54 566.1	2	3d ² (¹ D)4s	a ² D	3/2	–	3d ² (¹ S)4p	² P ^o	1/2	0.02	82HUL/JOH2
1833.3669	54 544.457	9	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)5d	⁴ H	9/2	0.0004	10ZAP/JOH
1834.0999	54 522.657	5	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)5d	⁴ G	9/2	0.0007	10ZAP/JOH
1835.4909	54 481.338	18	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ F)5d	⁴ H	13/2	0.0002	10ZAP/JOH
1837.39	54 425.0	1	3d ² (³ F)4s	a ² F	7/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.02	82HUL/JOH2
1838.5287	54 391.317	5	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ F)5d	⁴ H	11/2	0.0007	10ZAP/JOH
1858.4529	53 808.197	5	3d ² (³ F)4p	z ⁴ F ^o	3/2	–	3d ² (³ F)5d	⁴ D	5/2	0.0007	10ZAP/JOH
1862.68 162	53 686.040	29	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ F)5d	⁴ D	5/2	0.00 010	10ZAP/JOH
1865.77	53 597.1	3	3d ² (³ F)4s	a ⁴ F	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.02	82HUL/JOH2
1867.25	53 554.8	0	3d ² (³ F)4s	a ⁴ F	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2
1868.0781	53 530.952	8	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ F)5d	⁴ D	5/2	0.0005	10ZAP/JOH
1868.31	53 524.2	3	3d ³	a ² P	1/2	–	3d ² (¹ S)4p	² P ^o	3/2	0.02	82HUL/JOH2
1869.05	53 503.0	0	3d ² (³ F)4s	a ⁴ F	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.02	82HUL/JOH2
1870.53	53 460.7	3	3d ² (³ F)4s	a ⁴ F	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2
1871.7531	53 425.849	6	3d ³	a ² P	1/2	–	3d ² (¹ S)4p	² P ^o	1/2	0.0006	10ZAP/JOH
1872.6825	53 399.334	10	3d ³	a ² P	3/2	–	3d ² (¹ S)4p	² P ^o	3/2	0.0004	10ZAP/JOH
1873.4559	53 377.29	4	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ F)5d	⁴ G	9/2	0.0009	10ZAP/JOH
1874.3659	53 351.375	5	3d ² (³ F)4p	z ⁴ F ^o	9/2	–	3d ² (³ F)5d	⁴ D	7/2	0.0007	10ZAP/JOH
1875.0756	53 331.183	9	3d ² (³ F)4p	z ⁴ F ^o	9/2	–	3d ² (³ F)5d	⁴ H	11/2	0.0004	10ZAP/JOH
1875.15	53 329.0	2	3d ² (³ F)4s	a ⁴ F	7/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2

TABLE 6. Spectral lines of Ti II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
1875.34	53 323.8	0	3d ² (³ F)4p	z ⁴ G ^o	7/2	—	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH2
1876.1422	53 300.86	4	3d ³	a ² P	3/2	—	3d ² (¹ S)4p	² P ^o	1/2	0.0009	10ZAP/JOH
1876.3516	53 294.916	5	3d ² (³ F)4p	z ⁴ G ^o	5/2	—	3d ² (³ F)6s	⁴ F	3/2	0.0007	10ZAP/JOH
1876.57	53 288.7	1	3d ² (³ F)4p	z ⁴ G ^o	9/2	—	3d ² (³ F)6s	⁴ F	9/2	0.02	82HUL/JOH2
1877.7153	53 256.209	8	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)5d	⁴ H	7/2	0.0005	10ZAP/JOH
1879.2848	53 211.732	7	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)5d	⁴ H	9/2	0.0005	10ZAP/JOH
1880.4175	53 179.679	7	3d ² (³ F)4p	z ⁴ G ^o	7/2	—	3d ² (³ F)6s	⁴ F	5/2	0.0005	10ZAP/JOH
1883.5864	53 090.211	10	3d ² (³ F)4p	z ⁴ G ^o	9/2	—	3d ² (³ F)6s	⁴ F	7/2	0.0004	10ZAP/JOH
1886.2115	53 016.324	13	3d ² (³ F)4p	z ⁴ G ^o	11/2	—	3d ² (³ F)6s	⁴ F	9/2	0.0003	10ZAP/JOH
1886.8968	52 997.069	6	3d ² (³ P)4s	b ² P	3/2	—	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.0006	10ZAP/JOH
1891.4016	52 870.844	13	3d ² (³ F)4s	a ⁴ F	7/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	9/2	0.0003	10ZAP/JOH
1893.52	52 811.7	1	3d ² (³ P)4s	b ² P	1/2	—	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
1895.64	52 752.5	5	3d ² (³ F)4s	a ⁴ F	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	0.02	82HUL/JOH2
1897.42 120	52 703.111	145	3d ² (³ F)4s	a ⁴ F	9/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	9/2	0.0001	10ZAP/JOH
1897.45	52 702.4	12	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (¹ G)4d	² D	5/2	0.02	82HUL/JOH2
1900.02	52 631.0	3	3d ² (³ F)4s	a ⁴ F	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
1900.3666	52 621.427	14	3d ² (³ F)4s	a ⁴ F	7/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	0.0003	10ZAP/JOH
1900.74	52 611.1	5	3d ² (³ F)4s	a ⁴ F	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.02	82HUL/JOH2
1903.42	52 536.9	1	3d ² (³ F)4s	a ⁴ F	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
1905.50 462	52 479.537	67	3d ² (³ F)4s	a ⁴ F	7/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.0000	10ZAP/JOH
1905.7819	52 471.901	10	3d ² (³ F)4s	a ⁴ F	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.0004	10ZAP/JOH
1906.24	52 459.3	1	3d ² (³ F)4s	a ⁴ F	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.02	82HUL/JOH2
1906.44 364	52 453.688	130	3d ² (³ F)4s	a ⁴ F	9/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	0.00 007	10ZAP/JOH
1908.20 846	52 405.176	112	3d ² (³ F)4s	a ⁴ F	7/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.00 007	10ZAP/JOH
1909.20 643	52 377.783	74	3d ² (³ F)4s	a ⁴ F	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.00 007	10ZAP/JOH
1909.66 217	52 365.283	81	3d ² (³ F)4s	a ⁴ F	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.00 007	10ZAP/JOH
1910.61 227	52 339.243	45	3d ² (³ F)4s	a ⁴ F	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	1/2	0.00 007	10ZAP/JOH
1910.95 380	52 329.889	67	3d ² (³ F)4s	a ⁴ F	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.00 007	10ZAP/JOH
1911.61 477	52 311.795	82	3d ² (³ F)4s	a ⁴ F	9/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.00 007	10ZAP/JOH
1914.01 524	52 246.188	36	3d ² (³ F)4s	a ⁴ F	7/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.00 011	10ZAP/JOH
1914.3969	52 235.773	13	3d ² (³ F)4s	a ⁴ F	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.0003	10ZAP/JOH
1917.79	52 143.4	1	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)6s	⁴ F	9/2	0.02	82HUL/JOH2
1919.39	52 099.8	0	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH2
1920.20	52 077.8	0	3d ² (³ F)4p	z ⁴ F ^o	3/2	—	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH2
1921.5252	52 041.992	8	3d ² (³ F)4p	z ⁴ D ^o	3/2	—	3d ² (³ F)5d	⁴ D	5/2	0.0005	10ZAP/JOH
1921.6801	52 037.797	8	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (³ F)6s	² F	5/2	0.0005	10ZAP/JOH
1922.0256	52 028.443	10	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)6s	² F	7/2	0.0004	10ZAP/JOH
1922.97	52 002.8	1	3d ² (³ F)4p	z ⁴ F ^o	3/2	—	3d ² (³ F)6s	⁴ F	3/2	0.02	82HUL/JOH2
1924.6993	51 956.167	15	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)6s	⁴ F	9/2	0.0003	10ZAP/JOH
1924.7157	51 955.725	5	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)6s	⁴ F	5/2	0.0007	10ZAP/JOH
1925.1178	51 944.872	10	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)6s	⁴ F	7/2	0.0004	10ZAP/JOH
1926.5026	51 907.54	4	3d ² (³ F)4p	z ⁴ D ^o	3/2	—	3d ² (³ F)5d	⁴ D	3/2	0.0009	10ZAP/JOH
1927.3306	51 885.235	13	3d ² (³ F)4p	z ⁴ D ^o	7/2	—	3d ² (³ F)5d	⁴ D	7/2	0.0003	10ZAP/JOH
1927.49	51 881.0	0*	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)6s	⁴ F	3/2	0.02	82HUL/JOH2
1927.49	51 881.0	0*	3d ³	b ⁴ F	9/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	9/2	0.02	82HUL/JOH2
1930.0528	51 812.055	7	3d ² (³ F)4p	z ⁴ D ^o	5/2	—	3d ² (³ F)5d	⁴ D	3/2	0.0005	10ZAP/JOH
1930.49	51 800.4	0	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH2
1932.09	51 757.3	0	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH2
1932.21	51 754.1	3	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)6s	² F	5/2	0.02	82HUL/JOH2
1936.79	51 631.7	0*	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (³ F)6s	⁴ F	3/2	0.02	82HUL/JOH2
1936.79	51 631.7	0*	3d ³	b ⁴ F	9/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	0.02	82HUL/JOH2
1941.99	51 493.7	1	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)6s	² F	7/2	0.02	82HUL/JOH2
1942.1752	51 488.662	5	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)6s	² F	5/2	0.0008	10ZAP/JOH
1954.74	51 157.6	0	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH2
1957.61	51 082.6	0	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)6s	⁴ F	3/2	0.02	82HUL/JOH2
1959.52	51 032.9	0	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH2
1970.58	50 746.4	3	3d ³	b ² D2	3/2	—	3d ² (¹ S)4p	² P ^o	3/2	0.02	82HUL/JOH2
1971.23 491	50 729.621	29	3d ² (¹ D)4s	a ² D	3/2	—	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.00 012	10ZAP/JOH
1971.46	50 723.8	1	3d ² (¹ D)4s	a ² D	5/2	—	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.02	82HUL/JOH2
1973.2663	50 677.396	5	3d ² (¹ D)4s	a ² D	3/2	—	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.0008	10ZAP/JOH
1974.4106	50 648.027	16	3d ³	b ² D2	3/2	—	3d ² (¹ S)4p	² P ^o	1/2	0.0002	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
1974.58 196	50 643.631	42	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.00 008	10ZAP/JOH
1974.63	50 642.4	8	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)6s	² F	5/2	0.02	82HUL/JOH2
1975.61 838	50 617.063	23	3d ³	b ² D2	5/2	–	3d ² (¹ S)4p	² P ^o	3/2	0.00 016	10ZAP/JOH
1975.81	50 612.2	1	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.02	82HUL/JOH2
1977.13	50 578.4	0	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.02	82HUL/JOH2
1980.59	50 490.0	2	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)6s	⁴ F	9/2	0.02	82HUL/JOH2
1981.36	50 470.3	1	3d ³	a ² G	7/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.02	82HUL/JOH2
1985.6850	50 360.454	9	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)6s	⁴ F	7/2	0.0004	10ZAP/JOH
1986.0935	50 350.10	4	3d ³	a ² G	9/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.0010	10ZAP/JOH
1987.09	50 324.9	3	3d ³	a ² G	7/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.02	82HUL/JOH2
1987.6103	50 311.674	5	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)6s	⁴ F	5/2	0.0008	10ZAP/JOH
1987.80	50 306.9	2	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ F)6s	⁴ F	3/2	0.02	82HUL/JOH2
1988.42	50 291.3	0	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH2
1990.58	50 236.5	0	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)6s	⁴ F	3/2	0.02	82HUL/JOH2
1991.39	50 216.1	0	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH2
1996.22	50 094.7	0	3d ³	d ² D1	3/2	–	3d ² (³ F)4f	⁴ S ^o	3/2	0.02	82HUL/JOH2
1998.26	50 043.6	0*	3d ³	a ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
1998.26	50 043.6	0*	3d ³	d ² D1	3/2	–	3d ² (³ F)4f	² D ^o	5/2	0.02	82HUL/JOH2
1998.51	50 037.2	0	3d ³	d ² D1	5/2	–	3d ² (³ F)4f	⁴ S ^o	3/2	0.02	82HUL/JOH2
1999.9674	50 000.814	5	3d ³	b ² F	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.0008	10ZAP/JOH
Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
Configuration	Term	J	Configuration	Term	J	Configuration	Term	J			
1999.9049	49 986.181	8	3d ³	d ² D1	5/2	–	3d ² (³ F)4f	² D ^o	5/2	0.0005	10ZAP/JOH
2000.49	49 971.5	0	3d ³	d ² D1	3/2	–	3d ² (³ F)4f	⁴ P ^o	5/2	0.02	82HUL/JOH2
2006.63	49 818.6	1	3d ³	d ² D1	5/2	–	3d ² (³ F)4f	² F ^o	7/2	0.02	82HUL/JOH2
2007.78	49 790.2	0	3d ³	d ² D1	3/2	–	3d ² (³ F)4f	² P ^o	1/2	0.02	82HUL/JOH2
2012.0690	49 684.031	8	3d4s ²	c ² D	3/2	–	3d ² (³ F)5p	² D ^o	5/2	0.0005	10ZAP/JOH
2012.721	49 667.93	2	3d ³	d ² D1	3/2	–	3d ² (³ F)4f	⁴ F ^o	5/2	0.002	10ZAP/JOH
2018.05	49 536.8	0	3d ³	a ² P	1/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
2021.02	49 464.0	1	3d ³	a ² P	3/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
2021.50 110	49 452.244	104	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	² D ^o	5/2	0.00 008	10ZAP/JOH
2022.92 141	49 417.528	58	3d4s ²	c ² D	3/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.00 008	10ZAP/JOH
2023.16	49 411.8	1	3d ³	a ² P	3/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
2032.4549	49 185.761	13	3d4s ²	c ² D	5/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.0003	10ZAP/JOH
2040.6193	48 989.000	20	3d4s ²	c ² D	3/2	–	3d ² (³ F)5p	² D ^o	3/2	0.0002	10ZAP/JOH
2041.17	48 975.9	0	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)6s	² F	7/2	0.02	82HUL/JOH2
2041.46 883	48 968.616	24	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.00 017	10ZAP/JOH
2043.24	48 926.2	4	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2
2049.74 782	48 770.857	28	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (³ F)6s	² F	7/2	0.00 017	10ZAP/JOH
2050.32 095	48 757.226	152	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	² D ^o	3/2	0.00 008	10ZAP/JOH
2051.4445	48 730.53	4	3d ³	b ² F	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.0011	10ZAP/JOH
2052.64 881	48 701.939	24	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)6s	² F	5/2	0.00 017	10ZAP/JOH
2054.12 893	48 666.851	89	3d4s ²	c ² D	3/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.00 008	10ZAP/JOH
2054.53 333	48 657.273	36	3d ² (³ F)4s	a ² F	7/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.00 013	10ZAP/JOH
2056.62 442	48 607.807	235	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	² F ^o	7/2	0.00 008	10ZAP/JOH
2058.57 696	48 561.709	182	3d4s ²	c ² D	3/2	–	3d ² (³ F)5p	² F ^o	5/2	0.00 008	10ZAP/JOH
2060.55	48 515.1	0	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH2
2060.83	48 508.7	0	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (³ F)6s	⁴ F	9/2	0.02	82HUL/JOH2
2066.48	48 375.9	0	3d ³	b ² F	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.02	82HUL/JOH2
2066.70	48 370.8	0	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH2
2068.4504	48 329.937	18	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	² F ^o	5/2	0.0003	10ZAP/JOH
2069.31	48 309.9	0	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH2
2082.57	48 002.4	0	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
2089.48	47 843.5	0	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.02	82HUL/JOH2
2090.04	47 830.8	0	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.02	82HUL/JOH2
2091.06	47 807.5	0	3d ² (³ F)4s	a ² F	7/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.02	82HUL/JOH2
2094.30	47 733.4	0	3d ² (³ F)4s	a ² F	7/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2095.69	47 701.8	1	3d ² (³ F)4s	a ² F	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.02	82HUL/JOH2
2095.8450	47 698.301	8	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (¹ G)4d	² F	5/2	0.0006	10ZAP/JOH
2096.1411	47 691.563	13	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	² G ^o	7/2	0.0004	10ZAP/JOH
2099.08	47 624.9	0	3d ² (³ F)4s	a ⁴ F	3/2	–	3d ² (¹ G)4p	x ² F ^o	5/2	0.02	82HUL/JOH2
2099.50	47 615.3	0	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	0.02	82HUL/JOH2
2100.99	47 581.5	1	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	0.02	82HUL/JOH2
2101.30	47 574.5	1	3d ² (³ F)4s	a ² F	7/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.02	82HUL/JOH2
2102.88	47 538.7	0	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.02	82HUL/JOH2
2103.23	47 530.8	1	3d ² (³ F)4s	a ⁴ F	5/2	–	3d ² (¹ G)4p	x ² F ^o	5/2	0.02	82HUL/JOH2
2104.05	47 512.4	0	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	1/2	0.02	82HUL/JOH2
2104.3784	47 504.90	3	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.0015	10ZAP/JOH
2104.8373	47 494.549	8	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (¹ G)4d	² F	7/2	0.0006	10ZAP/JOH
2108.3241	47 416.009	21	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.0002	10ZAP/JOH
2109.07	47 399.2	0	3d ² (³ F)4s	a ⁴ F	7/2	–	3d ² (¹ G)4p	x ² F ^o	5/2	0.02	82HUL/JOH2
2110.0597	47 377.014	8	3d4s ²	c ² D	3/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.0006	10ZAP/JOH
2115.34 147	47 258.732	25	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.00 018	10ZAP/JOH
2116.14	47 240.8	0	3d ² (³ F)4s	a ⁴ F	7/2	–	3d ² (¹ G)4p	x ² F ^o	7/2	0.02	82HUL/JOH2
2120.4340	47 145.25	4	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.0011	10ZAP/JOH
2123.68	47 073.1	0	3d ² (³ F)4s	a ⁴ F	9/2	–	3d ² (¹ G)4p	x ² F ^o	7/2	0.02	82HUL/JOH2
2130.1451	46 930.341	5	3d ³	a ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	0.0009	10ZAP/JOH
2132.1821	46 885.512	7	3d ³	a ⁴ P	1/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.0006	10ZAP/JOH
2133.12 451	46 864.800	35	3d4s ²	c ² D	3/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.00 014	10ZAP/JOH
2133.3703	46 859.401	13	3d ² (³ P)4s	b ² P	1/2	–	3d ² (¹ S)4p	² P ^o	3/2	0.0004	10ZAP/JOH
2133.64	46 853.4	2	3d ³	a ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.02	82HUL/JOH2
2134.8283	46 827.401	7	3d ³	a ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	1/2	0.0006	10ZAP/JOH
2135.57	46 811.2	2	3d ³	b ² D2	3/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
2135.7141	46 807.982	15	3d ³	a ⁴ P	5/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	0.0003	10ZAP/JOH
2137.56 482	46 767.460	59	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.00 009	10ZAP/JOH
2137.86 290	46 760.940	27	3d ² (³ P)4s	b ² P	1/2	–	3d ² (¹ S)4p	² P ^o	1/2	0.00 018	10ZAP/JOH
2137.95	46 759.0	5	3d ³	b ² D2	3/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
2138.35 949	46 750.082	54	3d ² (³ P)4s	b ² P	3/2	–	3d ² (¹ S)4p	² P ^o	3/2	0.00 009	10ZAP/JOH
2139.2280	46 731.105	7	3d ³	a ⁴ P	5/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.0006	10ZAP/JOH
2140.20	46 709.9	0	3d ³	b ² D2	5/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.02	82HUL/JOH2
2140.93	46 693.9	1	3d ³	b ² D2	3/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.02	82HUL/JOH2
2142.8727	46 651.630	15	3d ² (³ P)4s	b ² P	3/2	–	3d ² (¹ S)4p	² P ^o	1/2	0.0003	10ZAP/JOH
2143.89	46 629.6	3	3d ³	b ² D2	5/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
2146.88	46 564.5	0	3d ³	b ² D2	5/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.02	82HUL/JOH2
2149.0159	46 518.287	9	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	² D	5/2	0.0005	10ZAP/JOH
2149.83 319	46 500.604	40	3d4s ²	c ² D	3/2	–	3d ² (³ F)5p	⁴ G ^o	5/2	0.00 014	10ZAP/JOH
2154.58	46 398.2	2	3d ³	a ² P	1/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.02	82HUL/JOH2
2154.71 045	46 395.360	131	3d ² (³ P)4s	b ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	0.00 009	10ZAP/JOH
2154.80 679	46 393.286	27	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.00 019	10ZAP/JOH
2155.59 406	46 376.344	134	3d ² (³ P)4s	b ⁴ P	1/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.00 009	10ZAP/JOH
2155.80	46 371.9	0	3d ³	a ² P	1/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	1/2	0.02	82HUL/JOH2
2156.80 536	46 350.301	26	3d ² (³ P)4s	b ⁴ P	1/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	1/2	0.00 019	10ZAP/JOH
2158.28 768	46 318.471	44	3d ² (³ P)4s	b ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.00 009	10ZAP/JOH
2159.08 645	46 301.337	324	3d ² (³ P)4s	b ⁴ P	5/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	0.00 009	10ZAP/JOH
2159.50 192	46 292.430	133	3d ² (³ P)4s	b ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	1/2	0.00 009	10ZAP/JOH
2160.40	46 273.2	0	3d ³	a ² P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.02	82HUL/JOH2
2160.6043	46 268.81	4	3d4s ²	c ² D	5/2	–	3d ² (³ F)5p	⁴ G ^o	5/2	0.0012	10ZAP/JOH
2161.2369	46 255.271	7	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ P)4d	⁴ F	9/2	0.0007	10ZAP/JOH
2161.63	46 246.9	1	3d ³	a ² P	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	1/2	0.02	82HUL/JOH2
2161.7282	46 244.761	7	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (¹ G)4d	² H	9/2	0.0007	10ZAP/JOH
2162.67 842	46 224.444	146	3d ² (³ P)4s	b ⁴ P	5/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.00 009	10ZAP/JOH
2164.7229	46 180.791	5	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ P)4d	² P	1/2	0.0009	10ZAP/JOH
2169.4034	46 081.168	8	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (¹ G)4d	² H	11/2	0.0006	10ZAP/JOH
2171.6966	46 032.513	14	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ P)4d	² P	3/2	0.0003	10ZAP/JOH
2173.4035	45 996.365	5	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ P)4d	⁴ P	1/2	0.0009	10ZAP/JOH
2186.7536	45 715.588	8	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ P)4d	⁴ P	3/2	0.0006	10ZAP/JOH
2187.51 622	45 699.652	1270	3d4s ²	c ² D	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.00 010	10ZAP/JOH
2190.14 713	45 644.761	790	3d4s ²	c ² D	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	5/2	0.00 010	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2193.3257	45 578.620	10	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ P)4d	² F	5/2	0.0005	10ZAP/JOH
2195.5225	45 533.019	17	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (¹ G)4d	² G	7/2	0.0003	10ZAP/JOH
2201.32 613	45 412.987	60	3d4s ²	c ² D	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	5/2	0.00 010	10ZAP/JOH
2203.6734	45 364.619	21	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (¹ G)4d	² G	9/2	0.0002	10ZAP/JOH
2203.8978	45 360.00	4	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ P)4d	² P	3/2	0.0012	10ZAP/JOH
2204.2547	45 352.66	4	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ P)4d	⁴ F	5/2	0.0012	10ZAP/JOH
2205.1894	45 333.437	18	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ P)4d	² F	7/2	0.0003	10ZAP/JOH
2205.4710	45 327.649	10	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ P)4d	⁴ F	7/2	0.0005	10ZAP/JOH
2210.1578	45 231.538	5	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ P)4d	⁴ D	7/2	0.0010	10ZAP/JOH
2211.93 719	45 195.155	23	3d ² (³ F)4p	z ⁴ F ^o	9/2	–	3d ² (³ P)4d	⁴ F	9/2	0.00 020	10ZAP/JOH
2214.7111	45 138.56	3	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ P	3/2	0.0016	10ZAP/JOH
2219.5282	45 040.599	13	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ P	5/2	0.0004	10ZAP/JOH
2227.13 878	44 886.701	139	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.00 010	10ZAP/JOH
2228.8159	44 852.929	18	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.0003	10ZAP/JOH
2229.2391	44 844.414	19	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.0002	10ZAP/JOH
2230.91 887	44 810.652	227	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.00 010	10ZAP/JOH
2238.38 959	44 661.109	68	3d4s ²	c ² D	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.00 010	10ZAP/JOH
2240.5730	44 617.592	11	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (¹ D)4d	² D	3/2	0.0005	10ZAP/JOH
2250.06 765	44 429.336	670	3d4s ²	c ² D	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.00 010	10ZAP/JOH
2253.26 385	44 366.320	360	3d4s ²	c ² D	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.00 010	10ZAP/JOH
2259.6466	44 241.012	10	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (¹ D)4d	² F	5/2	0.0005	10ZAP/JOH
2261.18 976	44 210.822	416	3d ² (¹ G)4s	b ² G	9/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.00 010	10ZAP/JOH
2261.6071	44 202.664	11	3d ² (¹ G)4s	b ² G	7/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.0005	10ZAP/JOH
2265.09 810	44 134.545	34	3d4s ²	c ² D	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.00 015	10ZAP/JOH
2266.75	44 102.4	1	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	0.02	82HUL/JOH2
2269.11 243	44 056.473	251	3d ² (¹ G)4s	b ² G	7/2	–	3d(² D)4s4p(³ P ^o)	w ² F ^o	5/2	0.00 010	10ZAP/JOH
2274.05	43 960.9	2	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.02	82HUL/JOH2
2276.13	43 920.6	0	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
2276.25	43 918.4	3	3d ³	b ⁴ F	5/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.02	82HUL/JOH2
2277.89	43 886.8	0	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
2281.0278	43 826.357	8	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ P)4d	⁴ D	3/2	0.0007	10ZAP/JOH
2281.62	43 815.0	0	3d ³	b ⁴ F	7/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.02	82HUL/JOH2
2282.1332	43 805.130	14	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ D	5/2	0.0004	10ZAP/JOH
2284.40	43 761.7	0	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.02	82HUL/JOH2
2284.8196	43 753.632	6	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ P)4d	⁴ F	3/2	0.0009	10ZAP/JOH
2285.21	43 746.2	2	3d ³	a ² P	1/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.02	82HUL/JOH2
2285.36 381	43 743.213	35	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ F	7/2	0.00 016	10ZAP/JOH
2285.5520	43 739.61	4	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (¹ G)4d	² D	3/2	0.0013	10ZAP/JOH
2286.10 532	43 729.026	69	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ F	9/2	0.00 010	10ZAP/JOH
2286.1816	43 727.568	9	3d ² (¹ D)4s	a ² D	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.0006	10ZAP/JOH
2286.35	43 724.4	0	3d ² (³ P)4s	b ⁴ P	1/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.02	82HUL/JOH2
2287.1737	43 708.601	11	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ F	5/2	0.0005	10ZAP/JOH
2287.4479	43 703.363	12	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (¹ D)4d	² G	7/2	0.0004	10ZAP/JOH
2288.9791	43 674.130	6	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ F	7/2	0.0009	10ZAP/JOH
2289.3797	43 666.488	11 bl	3d ² (³ P)4s	b ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.0005	10ZAP/JOH
2290.3972	43 647.092	7	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ D	7/2	0.0007	10ZAP/JOH
2291.35	43 628.9	0	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	1/2	0.02	82HUL/JOH2
2291.60	43 624.1	2	3d ² (³ P)4s	b ⁴ P	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2
2291.7536	43 621.26	4	3d ³	a ² P	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.0013	10ZAP/JOH
2291.80	43 620.4	0	3d ³	b ² D2	3/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	0.02	82HUL/JOH2
2291.8545	43 619.340	5	3d ² (¹ D)4s	a ² D	3/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.0011	10ZAP/JOH
2293.56	43 586.9	0	3d ³	a ² G	9/2	–	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.02	82HUL/JOH2
2293.5887	43 586.362	5	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (¹ G)4d	² D	5/2	0.0011	10ZAP/JOH
2293.98	43 578.9	2	3d ³	a ² P	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2
2294.32	43 572.4	2	3d ² (³ P)4s	b ⁴ P	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.02	82HUL/JOH2
2294.58	43 567.6	1	3d ³	b ² D2	5/2	–	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	0.02	82HUL/JOH2
2296.56	43 530.0	3	3d ² (³ P)4s	b ⁴ P	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2
2301.0679	43 444.705	5	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (³ F)6s	² F	7/2	0.0011	10ZAP/JOH
2302.5287	43 417.146	15	3d ² (³ F)4p	z ² F ^o	7/2	–	3d ² (¹ D)4d	² G	9/2	0.0004	10ZAP/JOH
2307.23	43 328.6	1	3d ³	a ⁴ P	5/2	–	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	0.02	82HUL/JOH2
2307.79	43 318.2	0	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (³ F)6s	² F	5/2	0.02	82HUL/JOH2

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2312.21	43 235.3	1*	3d ² (³ P)4p	y ⁴ D ^o	3/2	—	3d ² (¹ G)4d	² D	5/2	0.02	82HUL/JOH2
2312.21	43 235.3	1*	3d ³	a ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
2314.79	43 187.1	3	3d ³	a ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.02	82HUL/JOH2
2318.78	43 112.9	0	3d ³	a ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
2319.70	43 095.7	1	3d ³	a ⁴ P	1/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.02	82HUL/JOH2
2320.74	43 076.4	2	3d ³	a ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.02	82HUL/JOH2
2321.43	43 063.6	1	3d ³	a ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.02	82HUL/JOH2
2325.0623	42 996.399	7	3d ² (³ F)4s	a ² F	5/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.0008	10ZAP/JOH
2326.18	42 975.7	3	3d ³	a ⁴ P	1/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	1/2	0.02	82HUL/JOH2
2326.67	42 966.7	0	3d ³	a ⁴ P	1/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.02	82HUL/JOH2
2327.35	42 954.1	2	3d ³	a ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.02	82HUL/JOH2
2327.92	42 943.6	0	3d ³	a ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	1/2	0.02	82HUL/JOH2
2328.41	42 934.6	1	3d ³	a ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.02	82HUL/JOH2
2328.98	42 924.1	3	3d ² (³ P)4s	b ² P	1/2	—	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
2331.82	42 871.8	2	3d ² (³ P)4s	b ² P	1/2	—	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
2333.66	42 838.0	2	3d ² (³ F)4s	a ² F	5/2	—	3d ² (¹ G)4p	x ² F ^o	7/2	0.02	82HUL/JOH2
2334.51 415	42 822.333	46	3d ² (³ P)4s	b ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	0.00 011	10ZAP/JOH
2334.92	42 814.8	2	3d ² (³ P)4s	b ² P	3/2	—	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.02	82HUL/JOH2
2337.4747	42 768.100	18	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (¹ D)4d	² F	5/2	0.0003	10ZAP/JOH
2337.78	42 762.6	2	3d ² (³ P)4s	b ² P	3/2	—	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
2339.71	42 727.2	1	3d ² (³ F)4s	a ² F	7/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.02	82HUL/JOH2
2341.19 720	42 700.105	32	3d ² (³ P)4s	b ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.00 016	10ZAP/JOH
2342.27 594	42 680.441	61	3d ² (³ P)4s	b ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	0.00 011	10ZAP/JOH
2343.67	42 655.1	1	3d ³	a ² P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.02	82HUL/JOH2
2346.1205	42 610.506	6	3d ² (³ F)4p	z ² G ^o	9/2	—	3d ² (³ P)4d	² F	7/2	0.0009	10ZAP/JOH
2346.24	42 608.4	0	3d ³	a ² P	1/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.02	82HUL/JOH2
2346.3638	42 606.089	12	3d ² (³ P)4s	b ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	0.0004	10ZAP/JOH
2347.20	42 590.9	0	3d ² (¹ S)4s	a ² S	1/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.02	82HUL/JOH2
2347.4436	42 586.492	14	3d ² (³ P)4s	b ⁴ P	1/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.0004	10ZAP/JOH
2348.1954	42 572.859	19	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (¹ D)4d	² F	7/2	0.0003	10ZAP/JOH
2348.4064	42 569.034	11	3d ² (³ F)4s	a ² F	7/2	—	3d ² (¹ G)4p	x ² F ^o	7/2	0.0005	10ZAP/JOH
2349.94 769	42 541.116	29	3d ² (³ P)4s	b ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.00 017	10ZAP/JOH
2350.6386	42 528.614	19	3d ² (³ P)4s	b ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.0003	10ZAP/JOH
2352.43	42 496.2	0	3d ³	a ² P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.02	82HUL/JOH2
2352.86	42 488.4	1	3d ² (³ P)4p	y ⁴ D ^o	3/2	—	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH2
2354.0859	42 466.340	18	3d ² (³ P)4s	b ⁴ P	1/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	1/2	0.0003	10ZAP/JOH
2354.6045	42 456.988	9	3d ² (³ P)4s	b ⁴ P	1/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.0006	10ZAP/JOH
2355.1529	42 447.102	10	3d ² (³ P)4s	b ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	5/2	0.0006	10ZAP/JOH
2355.85	42 434.6	2	3d ² (³ P)4s	b ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	3/2	0.02	82HUL/JOH2
2357.29	42 408.7	4	3d ² (³ P)4s	b ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ D ^o	1/2	0.02	82HUL/JOH2
2357.8181	42 399.125	10	3d ² (³ P)4s	b ⁴ P	3/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.0006	10ZAP/JOH
2359.4537	42 369.74	4	3d ³	d ² D1	3/2	—	3d ² (³ F)5p	² D ^o	5/2	0.0014	10ZAP/JOH
2362.65 648	42 312.305	49	3d ³	d ² D1	5/2	—	3d ² (³ F)5p	² D ^o	5/2	0.00 011	10ZAP/JOH
2363.03	42 305.6	2	3d ² (³ P)4s	b ⁴ P	5/2	—	3d(² D)4s4p(³ P ^o)	⁴ F ^o	3/2	0.02	82HUL/JOH2
2367.8795	42 218.981	22	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (¹ D)4d	² F	5/2	0.0003	10ZAP/JOH
2371.06 521	42 162.261	30	3d ² (¹ S)4s	a ² S	1/2	—	3d ² (³ F)5p	² D ^o	3/2	0.00 017	10ZAP/JOH
2373.75	42 114.5	2	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.02	82HUL/JOH2
2374.3892	42 103.241	23	3d ³	d ² D1	3/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.0002	10ZAP/JOH
2377.1070	42 055.107	8	3d ² (³ F)4p	z ² G ^o	7/2	—	3d ² (¹ G)5s	² G	7/2	0.0007	10ZAP/JOH
2377.6325	42 045.813	6	3d ³	d ² D1	5/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.0010	10ZAP/JOH
2378.06 382	42 038.188	29	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (¹ D)4d	² F	7/2	0.00 017	10ZAP/JOH
2388.6810	41 851.352	13	3d ² (³ F)4p	z ² G ^o	9/2	—	3d ² (¹ G)5s	² G	9/2	0.0005	10ZAP/JOH
2389.3226	41 840.114	14	3d ² (¹ S)4s	a ² S	1/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.0004	10ZAP/JOH
2398.4683	41 680.584	8	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ P)5s	² P	1/2	0.0007	10ZAP/JOH
2398.8076	41 674.690	7	3d ³	d ² D1	3/2	—	3d ² (³ F)5p	² D ^o	3/2	0.0008	10ZAP/JOH
2402.11 648	41 617.288	47	3d ³	d ² D1	5/2	—	3d ² (³ F)5p	² D ^o	3/2	0.00 012	10ZAP/JOH
2407.2683	41 528.230	22	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ P)5s	² P	3/2	0.0003	10ZAP/JOH
2410.77 268	41 467.867	97	3d ³	d ² D1	5/2	—	3d ² (³ F)5p	² F ^o	7/2	0.00 012	10ZAP/JOH
2417.4954	41 352.560	23	3d ³	d ² D1	3/2	—	3d(² D)4s4p(¹ P ^o)	² P ^o	1/2	0.0002	10ZAP/JOH
2423.65 846	41 247.413	67	3d ³	d ² D1	3/2	—	3d ² (³ F)5p	² F ^o	5/2	0.00 012	10ZAP/JOH
2427.0366	41 190.006	8	3d ³	d ² D1	5/2	—	3d ² (³ F)5p	² F ^o	5/2	0.0008	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2440.16 470	40 968.420	47	3d ³	b ² D ₂	3/2	—	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.00 012	10ZAP/JOH
2442.69	40 926.0	7	3d ³	b ² D ₂	3/2	—	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH2
2447.8979	40 839.006	6	3d ³	b ² D ₂	5/2	—	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.0010	10ZAP/JOH
2450.43 470	40 796.730	73	3d ³	b ² D ₂	5/2	—	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.00 012	10ZAP/JOH
2456.01	40 704.2	0	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.02	82HUL/JOH2
2460.64 722	40 627.422	145	3d ² (³ P)4p	z ² S ^o	1/2	—	3d ² (³ P)4d	² P	3/2	0.00 012	10ZAP/JOH
2463.43	40 581.5	0	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.02	82HUL/JOH2
2463.97	40 572.6	4	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.02	82HUL/JOH2
2465.2485	40 551.60	4	3d ³	d ² D ₁	5/2	—	3d ² (³ F)5p	² G ^o	7/2	0.0015	10ZAP/JOH
2467.97 731	40 506.764	73	3d ² (³ P)4p	z ² S ^o	1/2	—	3d ² (³ P)4d	² P	1/2	0.00 012	10ZAP/JOH
2469.16	40 487.4	3	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.02	82HUL/JOH2
2472.9408	40 425.47	4	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.0018	01PIC/THO
2474.1947	40 404.982	17	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.0004	10ZAP/JOH
2476.4931	40 367.49	4	3d ² (³ F)4p	z ² G ^o	7/2	—	3d ² (¹ D)4d	² G	7/2	0.0015	10ZAP/JOH
2477.2028	40 355.922	14	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.0004	10ZAP/JOH
2478.6965	40 331.604	10	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.0006	10ZAP/JOH
2478.78	40 330.2	3	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	1/2	0.02	82HUL/JOH2
2479.26 742	40 322.317	41	3d ² (³ P)4p	z ² S ^o	1/2	—	3d ² (³ P)4d	⁴ P	1/2	0.00 012	10ZAP/JOH
2479.99 433	40 310.499	51	3d ² (³ P)4p	z ² S ^o	1/2	—	3d ² (³ P)4d	⁴ P	3/2	0.00 012	10ZAP/JOH
2481.50	40 286.1	4	3d ² (³ F)4s	a ² F	5/2	—	3d ² (³ P)4p	x ² D ^o	3/2	0.02	82HUL/JOH2
2482.1146	40 276.067	9	3d ³	d ² D ₁	5/2	—	3d ² (³ F)5p	⁴ D ^o	7/2	0.0007	10ZAP/JOH
2482.26	40 273.7	2	3d ² (³ F)4s	a ² F	5/2	—	3d ² (³ P)4p	x ² D ^o	5/2	0.02	82HUL/JOH2
2489.9345	40 149.585	15	3d ² (¹ D)4p	y ² F ^o	5/2	—	3d ² (¹ G)4d	² G	7/2	0.0004	10ZAP/JOH
2491.8450	40 118.804	10	3d ³	d ² D ₁	5/2	—	3d ² (³ F)5p	⁴ D ^o	5/2	0.0006	10ZAP/JOH
2496.8463	40 038.450	18	3d ² (¹ D)4p	y ² F ^o	7/2	—	3d ² (¹ G)4d	² G	9/2	0.0004	10ZAP/JOH
2498.9511	40 004.729	21	3d ² (³ F)4s	a ² F	7/2	—	3d ² (³ P)4p	x ² D ^o	5/2	0.0003	10ZAP/JOH
2510.8901	39 814.53	9	3d ³	b ⁴ F	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.0019	01PIC/THO
2517.43 134	39 711.078	160	3d ³	b ⁴ F	7/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.00 013	10ZAP/JOH
2519.327	39 681.20	3	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.002	10ZAP/JOH
2519.8049	39 673.675	12	3d ³	b ⁴ F	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.0005	10ZAP/JOH
2522.7394	39 627.528	24	3d ³	d ² D ₁	5/2	—	3d ² (³ F)5p	⁴ F ^o	7/2	0.0003	10ZAP/JOH
2524.37 668	39 601.828	46	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (¹ D)5s	² D	3/2	0.00 013	10ZAP/JOH
2524.5760	39 598.701	10	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (¹ D)5s	² D	5/2	0.0006	10ZAP/JOH
2524.63 890	39 597.715	206	3d ³	b ⁴ F	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.00 013	10ZAP/JOH
2525.60 296	39 582.601	1350	3d ³	b ⁴ F	9/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.00 013	10ZAP/JOH
2527.6526	39 550.506	12	3d ³	d ² D ₁	3/2	—	3d ² (³ F)5p	⁴ F ^o	5/2	0.0005	10ZAP/JOH
2529.74 777	39 517.752	154	3d ³	b ⁴ F	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.00 013	10ZAP/JOH
2531.25 172	39 494.274	930	3d ³	b ⁴ F	7/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.00 013	10ZAP/JOH
2533.899	39 453.02	3	3d ³	d ² D ₁	3/2	—	3d ² (³ F)5p	⁴ F ^o	3/2	0.002	10ZAP/JOH
2534.61 943	39 441.802	610	3d ³	b ⁴ F	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.00 013	10ZAP/JOH
2535.87 016	39 422.350	384	3d ³	b ⁴ F	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	1/2	0.00 013	10ZAP/JOH
2536.79	39 408.1	9	3d ² (³ F)4p	z ⁴ G ^o	5/2	—	3d ² (³ F)4d	f ⁴ F	7/2	0.02	82HUL/JOH
2542.77 550	39 315.299	110	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (¹ D)5s	² D	5/2	0.00 013	10ZAP/JOH
2543.6196	39 302.253	8	3d ² (³ F)4p	z ⁴ G ^o	5/2	—	3d ² (³ F)4d	f ⁴ F	5/2	0.0008	10ZAP/JOH
2546.7884	39 253.355	12	3d ³	d ² D ₁	5/2	—	3d ² (³ F)5p	⁴ G ^o	7/2	0.0005	10ZAP/JOH
2548.63 728	39 224.881	93	3d ² (³ F)4p	z ⁴ G ^o	5/2	—	3d ² (³ F)4d	f ⁴ F	3/2	0.00 013	10ZAP/JOH
2549.1163	39 217.510	10	3d ² (³ F)4p	z ⁴ G ^o	7/2	—	3d ² (³ F)4d	f ⁴ F	7/2	0.0006	10ZAP/JOH
2551.1465	39 186.304	14	3d ³	d ² D ₁	3/2	—	3d ² (³ F)5p	⁴ G ^o	5/2	0.0005	10ZAP/JOH
2554.8892	39 128.90	4	3d ³	d ² D ₁	5/2	—	3d ² (³ F)5p	⁴ G ^o	5/2	0.0016	10ZAP/JOH
2555.7132	39 116.288	5	3d ² (³ F)4p	z ⁴ G ^o	9/2	—	3d ² (³ F)4d	f ⁴ F	9/2	0.0013	10ZAP/JOH
2555.98 697	39 112.098	355*	3d ² (³ F)4s	a ² F	5/2	—	3d ² (¹ G)4p	y ² G ^o	7/2	0.00 013	10ZAP/JOH
2555.98 697	39 112.098	355*	3d ² (³ F)4p	z ⁴ G ^o	7/2	—	3d ² (³ F)4d	f ⁴ F	5/2	0.00 013	10ZAP/JOH
2557.06 008	39 095.685	76	3d ² (³ P)4p	y ² P ^o	3/2	—	3d ² (³ F)5d	⁴ D	5/2	0.00 013	10ZAP/JOH
2559.8753	39 052.692	15	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (¹ D)5s	² D	3/2	0.0005	10ZAP/JOH
2564.1688	38 987.306	8	3d ³	b ⁴ F	7/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.0009	10ZAP/JOH
2564.39 948	38 983.799	246	3d ² (³ F)4p	z ⁴ G ^o	9/2	—	3d ² (³ F)4d	f ⁴ F	7/2	0.00 013	10ZAP/JOH
2567.2163	38 941.028	12	3d ² (¹ D)4p	y ² D ^o	3/2	—	3d ² (³ P)4d	² D	5/2	0.0005	10ZAP/JOH
2568.5322	38 921.079	14	3d ² (¹ D)4p	z ² P ^o	1/2	—	3d ² (³ P)4d	² D	3/2	0.0005	10ZAP/JOH
2568.96 791	38 914.478	29	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.00 020	10ZAP/JOH
2571.03 223	38 883.235	274	3d ² (³ F)4s	a ² F	7/2	—	3d ² (¹ G)4p	y ² G ^o	9/2	0.00 013	10ZAP/JOH
2572.64 652	38 858.838	62	3d ³	b ⁴ F	9/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.00 013	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2573.64 972	38 843.692	332	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ F)4d	f ⁴ F	9/2	0.00 013	10ZAP/JOH
2573.6920	38 843.054	12	3d ² (³ F)4s	a ² F	7/2	–	3d ² (¹ G)4p	y ² G ^o	7/2	0.0005	10ZAP/JOH
2574.9096	38 824.687	17	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (³ P)4d	² P	3/2	0.0004	10ZAP/JOH
2575.2155	38 820.08	4	3d ² (³ F)4p	z ⁴ G ^o	5/2	–	3d ² (³ F)4d	² D	3/2	0.0017	10ZAP/JOH
2577.8352	38 780.628	24	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (¹ D)5s	² D	5/2	0.0003	10ZAP/JOH
2579.3024	38 758.569	10	3d ² (³ P)4p	x ² D ^o	5/2	–	3d ² (¹ G)4d	² D	5/2	0.0007	10ZAP/JOH
2581.71 126	38 722.408	50	3d ² (¹ D)4s	a ² D	5/2	–	3d ² (¹ G)4p	x ² F ^o	7/2	0.00 013	10ZAP/JOH
2582.9374	38 704.027	30	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (³ P)4d	² P	1/2	0.0002	10ZAP/JOH
2588.8167	38 616.14	4	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)4d	e ² H	11/2	0.0017	10ZAP/JOH
2591.1624	38 581.178	28	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ P)4d	² P	3/2	0.0003	10ZAP/JOH
2591.53	38 575.7	8*	3d ³	b ² F	7/2	–	3d ² (² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.02	82HUL/JOH
2591.53	38 575.7	8*	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (³ P)4d	⁴ P	5/2	0.02	82HUL/JOH
2592.60 496	38 559.713	458	3d ³	d ² D1	5/2	–	3d ² (² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.00 013	10ZAP/JOH
2595.3058	38 519.587	34	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (³ P)4d	⁴ P	1/2	0.0002	10ZAP/JOH
2596.1026	38 507.766	13	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (³ P)4d	⁴ P	3/2	0.0005	10ZAP/JOH
2599.18 453	38 462.109	69	3d ² (¹ G)4p	y ² G ^o	9/2	–	3d ² (¹ G)4d	² F	7/2	0.00 014	10ZAP/JOH
2599.64 890	38 455.239	64	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (³ P)4d	² P	3/2	0.00 014	10ZAP/JOH
2604.0966	38 389.563	18	3d ³	b ⁴ F	7/2	–	3d ² (¹ D)4p	y ² D ^o	5/2	0.0004	10ZAP/JOH
2604.5190	38 383.338	31	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (³ P)4d	² P	3/2	0.0002	10ZAP/JOH
2608.11 178	38 330.466	252	3d ³	d ² D1	3/2	–	3d ² (² D)4s4p(¹ P ^o)	v ² F ^o	5/2	0.00 014	10ZAP/JOH
2612.0243	38 273.054	22	3d ³	d ² D1	5/2	–	3d ² (² D)4s4p(¹ P ^o)	v ² F ^o	5/2	0.0003	10ZAP/JOH
2612.6246	38 264.261	13	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ P)4d	⁴ P	3/2	0.0005	10ZAP/JOH
2612.7324	38 262.682	39	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (³ P)4d	² P	1/2	0.0002	10ZAP/JOH
2613.634	38 249.48	3	3d ³	b ⁴ F	5/2	–	3d ² (¹ D)4p	z ² P ^o	3/2	0.002	10ZAP/JOH
2616.6829	38 204.920	24	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (³ P)4d	⁴ P	5/2	0.0003	10ZAP/JOH
2617.4337	38 193.962	29	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (¹ G)4d	² D	3/2	0.0002	10ZAP/JOH
2620.4407	38 150.136	16	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (³ P)4d	⁴ P	1/2	0.0004	10ZAP/JOH
2621.25 280	38 138.317	97	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (³ P)4d	⁴ P	3/2	0.00 014	10ZAP/JOH
2621.7362	38 131.29	4	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (³ P)4d	² P	3/2	0.0017	10ZAP/JOH
2622.6864	38 117.471	7	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (¹ G)4d	² D	3/2	0.0010	10ZAP/JOH
2623.05 667	38 112.091	49	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (¹ G)4d	² D	5/2	0.00 014	10ZAP/JOH
2625.3889	38 078.236	16	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (³ P)4d	⁴ P	1/2	0.0004	10ZAP/JOH
2626.2046	38 066.410	14	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (³ P)4d	⁴ P	3/2	0.0005	10ZAP/JOH
2626.5285	38 061.716	6	3d ² (³ F)4p	z ⁴ G ^o	5/2	–	3d ² (³ F)4d	e ² G	7/2	0.0012	10ZAP/JOH
2628.65 689	38 030.900	129	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)4d	² P	3/2	0.00 014	10ZAP/JOH
2630.08 367	38 010.270	124	3d ² (³ F)4p	z ⁴ F ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.00 014	10ZAP/JOH
2631.24 145	37 993.546	179	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.00 014	10ZAP/JOH
2632.80 688	37 970.957	151	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	9/2	0.00 014	10ZAP/JOH
2635.44 755	37 932.913	469	3d ² (³ F)4p	z ⁴ F ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.00 014	10ZAP/JOH
2637.02 355	37 910.244	61	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)4d	² P	1/2	0.00 014	10ZAP/JOH
2638.56 431	37 888.108	790	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.00 014	10ZAP/JOH
2638.9825	37 882.104	5	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ P)4d	² F	7/2	0.0014	10ZAP/JOH
2642.02 701	37 838.454	1290	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.00 014	10ZAP/JOH
2643.96 273	37 810.753	118	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.00 014	10ZAP/JOH
2645.86 522	37 783.567	2180	3d ² (³ F)4p	z ⁴ F ^o	9/2	–	3d ² (³ F)4d	f ⁴ F	9/2	0.00 014	10ZAP/JOH
2646.07 414	37 780.584	425	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)4d	⁴ P	5/2	0.00 014	10ZAP/JOH
2649.41 010	37 733.016	204	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.00 014	10ZAP/JOH
2649.91 697	37 725.799	113	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)4d	⁴ P	1/2	0.00 014	10ZAP/JOH
2650.74 739	37 713.981	213	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)4d	⁴ P	3/2	0.00 014	10ZAP/JOH
2655.17 712	37 651.065	178	3d ² (³ F)4p	z ⁴ F ^o	9/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.00 014	10ZAP/JOH
2656.0155	37 639.18	4	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.0018	10ZAP/JOH
2660.187	37 580.16	3	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.002	10ZAP/JOH
2661.4864	37 561.815	10	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.0007	10ZAP/JOH
2663.8764	37 528.117	15	3d ² (³ F)4p	z ⁴ F ^o	3/2	–	3d ² (³ F)4d	² D	3/2	0.0005	10ZAP/JOH
2664.1698	37 523.985	10	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ F)4d	² D	5/2	0.0007	10ZAP/JOH
2667.5480	37 476.467	5	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ P)4d	² P	3/2	0.0014	10ZAP/JOH
2668.6341	37 461.215	28	3d ² (³ F)4p	z ² F ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.0003	10ZAP/JOH
2672.3984	37 408.450	14	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (³ P)4d	² F	5/2	0.0005	10ZAP/JOH
2672.5776	37 405.94	4	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ F)4d	² D	3/2	0.0018	10ZAP/JOH
2676.1668	37 355.778	15	3d ² (³ F)4p	z ² F ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.0005	10ZAP/JOH
2676.8098	37 346.805	16	3d ³	d ² D1	3/2	–	3d ² (² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.0004	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2677.25 327	37 340.619	53	3d ² (³ P)4p	x ² D ^o	5/2	–	3d ² (¹ G)4d	² F	7/2	0.0014	10ZAP/JOH
2678.2117	37 327.257	5	3d ² (³ P)4p	y ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ P	1/2	0.0014	10ZAP/JOH
2678.2454	37 326.787	35	3d ² (³ P)4p	x ² D ^o	3/2	–	3d ² (¹ G)4d	² F	5/2	0.0002	10ZAP/JOH
2680.93 097	37 289.398	184	3d ³	d ² D1	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.0014	10ZAP/JOH
2681.2938	37 284.352	20	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (³ P)4d	² F	7/2	0.0004	10ZAP/JOH
2681.96 176	37 275.067	54	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (³ F)4d	² D	5/2	0.0014	10ZAP/JOH
2690.2994	37 159.553	10	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ P	3/2	0.0007	10ZAP/JOH
2690.48 154	37 157.037	61	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (³ F)4d	² D	3/2	0.0014	10ZAP/JOH
2695.3410	37 090.050	27	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.0003	10ZAP/JOH
2695.9754	37 081.32	4	3d ² (³ P)4s	b ² P	1/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.0018	10ZAP/JOH
2698.10 719	37 052.026	86	3d ³	d ² D1	3/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.0015	10ZAP/JOH
2698.34 833	37 048.715	251	3d ² (¹ G)4p	y ² G ^o	9/2	–	3d ² (¹ G)4d	² H	11/2	0.0015	10ZAP/JOH
2698.44 543	37 047.382	214	3d ² (¹ G)4p	y ² G ^o	7/2	–	3d ² (¹ G)4d	² H	9/2	0.0015	10ZAP/JOH
2700.9737	37 012.705	15	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.0005	10ZAP/JOH
2701.2181	37 009.357	25	3d ² (³ P)4p	y ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ P	5/2	0.0003	10ZAP/JOH
2701.3756	37 007.199	5	3d ² (¹ G)4p	y ² G ^o	9/2	–	3d ² (¹ G)4d	² H	9/2	0.0015	10ZAP/JOH
2701.46 898	37 005.920	52	3d ² (³ P)4p	z ² S ^o	1/2	–	3d ² (¹ D)4d	² P	1/2	0.0015	10ZAP/JOH
2702.2950	36 994.609	10	3d ³	d ² D1	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.0007	10ZAP/JOH
2702.51 036	36 991.661	183	3d ² (³ F)4p	z ² F ^o	7/2	–	3d ² (³ F)4d	² D	5/2	0.0015	10ZAP/JOH
2703.96	36 971.81	8	3d ² (³ P)4s	b ² P	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	0.02	82HUL/JOH
2706.9612	36 930.842	6	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ P)4d	⁴ D	5/2	0.0012	10ZAP/JOH
2707.0409	36 929.755	8	3d ² (³ P)4s	b ² P	3/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.0010	10ZAP/JOH
2707.27 635	36 926.543	46	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.0015	10ZAP/JOH
2713.7580	36 838.351	7	3d ² (¹ D)4s	a ² D	3/2	–	3d ² (³ P)4p	y ² P ^o	3/2	0.0010	10ZAP/JOH
2714.0565	36 834.299	8	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ P)4d	⁴ F	5/2	0.0010	10ZAP/JOH
2715.0290	36 821.107	7	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.0010	10ZAP/JOH
2716.24 763	36 804.588	72	3d ² (¹ D)4s	a ² D	5/2	–	3d ² (³ P)4p	y ² P ^o	3/2	0.0015	10ZAP/JOH
2717.2970	36 790.376	34	3d ³	a ² G	9/2	–	3d ² (¹ G)4p	z ² H ^o	11/2	0.0002	10ZAP/JOH
2717.84 240	36 782.993	111	3d ² (³ P)4p	z ² S ^o	1/2	–	3d ² (¹ D)4d	² P	3/2	0.0015	10ZAP/JOH
2719.4032	36 761.883	34	3d ² (¹ D)4s	a ² D	3/2	–	3d ² (³ P)4p	y ² P ^o	1/2	0.0002	10ZAP/JOH
2720.4358	36 747.930	11	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (¹ D)4d	² D	5/2	0.0007	10ZAP/JOH
2722.0653	36 725.933	23	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ F)4d	² D	5/2	0.0003	10ZAP/JOH
2723.3276	36 708.910	5	3d ² (³ F)4p	z ⁴ F ^o	7/2	–	3d ² (³ F)4d	e ² G	9/2	0.0015	10ZAP/JOH
2725.181	36 683.95	3	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (³ P)4d	⁴ D	3/2	0.002	10ZAP/JOH
2725.7729	36 675.980	31	3d ³	a ² G	7/2	–	3d ² (¹ G)4p	z ² H ^o	9/2	0.0002	10ZAP/JOH
2730.84 199	36 607.905	179	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ F)4d	² D	3/2	0.0015	10ZAP/JOH
2732.05 158	36 591.698	116	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (¹ D)4d	² D	3/2	0.0015	10ZAP/JOH
2738.58 374	36 504.423	228	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (¹ D)4d	² D	5/2	0.0015	10ZAP/JOH
2742.14 724	36 456.987	381	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	² D	5/2	0.0015	10ZAP/JOH
2746.54 208	36 398.654	305	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (³ F)4d	e ² G	7/2	0.0015	10ZAP/JOH
2748.06 497	36 378.484	135	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (¹ D)4d	² D	5/2	0.0015	10ZAP/JOH
2748.9590	36 366.653	10	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (³ P)4d	⁴ F	7/2	0.0008	10ZAP/JOH
2750.3554	36 348.191	18	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (¹ D)4d	² D	3/2	0.0005	10ZAP/JOH
2751.05 467	36 338.952	45	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	² D	3/2	0.0015	10ZAP/JOH
2751.30 635	36 335.628	161	3d ² (¹ G)4p	y ² G ^o	7/2	–	3d ² (¹ G)4d	² G	7/2	0.0015	10ZAP/JOH
2751.56 845	36 332.167	194	3d ² (¹ G)4p	y ² G ^o	9/2	–	3d ² (¹ G)4d	² G	9/2	0.0015	10ZAP/JOH
2751.60 624	36 331.668	540	3d ² (³ F)4p	z ² F ^o	7/2	–	3d ² (³ F)4d	e ² G	9/2	0.0015	10ZAP/JOH
2752.68 459	36 317.436	770	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	9/2	0.0015	10ZAP/JOH
2754.3514	36 295.460	7	3d ² (¹ G)4p	y ² G ^o	9/2	–	3d ² (¹ G)4d	² G	7/2	0.0011	10ZAP/JOH
2757.49 927	36 254.028	418	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.0015	10ZAP/JOH
2758.25 723	36 244.066	250	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.0015	10ZAP/JOH
2758.79 640	36 236.983	126	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.0015	10ZAP/JOH
2759.9190	36 222.245	9	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (¹ D)4d	² D	3/2	0.0008	10ZAP/JOH
2760.9652	36 208.520	13	3d ² (³ F)4p	z ² F ^o	7/2	–	3d ² (³ F)4d	⁴ P	5/2	0.0006	10ZAP/JOH
2761.28 654	36 204.306	70	3d ² (¹ D)4s	a ² D	3/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.0015	10ZAP/JOH
2762.05 224	36 194.270	110	3d ² (¹ G)4p	x ² F ^o	7/2	–	3d ² (¹ G)4d	² D	5/2	0.0015	10ZAP/JOH
2762.2349	36 191.877	28	3d ² (¹ D)4s	a ² D	3/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.0003	10ZAP/JOH
2762.76 498	36 184.933	70	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.0015	10ZAP/JOH
2764.15 711	36 166.710	56	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.0015	10ZAP/JOH
2764.81 489	36 158.106	126	3d ² (¹ D)4s	a ² D	5/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.0015	10ZAP/JOH
2765.1945	36 153.143	8	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	y ² P ^o	3/2	0.0010	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2765.40 795	36 150.352	43	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (¹ D)4d	² D	3/2	0.00 015	10ZAP/JOH
2765.54 275	36 148.590	89	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.00 015	10ZAP/JOH
2767.4914	36 123.138	38	3d ² (³ P)4p	z ² S ^o	1/2	–	3d ² (³ P)5s	² P	3/2	0.0002	10ZAP/JOH
2768.0956	36 115.254	16 bl	3d ² (³ F)4p	z ² F ^o	7/2	–	3d ² (³ F)4d	e ² G	7/2	0.0005	10ZAP/JOH
2770.839	36 079.50	3	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.003	10ZAP/JOH
2771.03	36 077.07	7	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	y ² P ^o	1/2	0.02	82HUL/JOH
2772.2337	36 061.348	17	3d ² (³ P)4p	z ⁴ P ^o	1/2	–	3d ² (³ P)4d	² P	3/2	0.0005	10ZAP/JOH
2772.7585	36 054.523	23	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (¹ D)4d	² D	5/2	0.0003	10ZAP/JOH
2773.77 051	36 041.369	73	3d ² (¹ G)4p	x ² F ^o	5/2	–	3d ² (¹ G)4d	² D	3/2	0.00 015	10ZAP/JOH
2774.1866	36 035.963	8	3d ² (¹ G)4p	x ² F ^o	5/2	–	3d ² (¹ G)4d	² D	5/2	0.0010	10ZAP/JOH
2774.76 864	36 028.405	79	3d ² (³ P)4p	y ⁴ D ^o	1/2	–	3d ² (³ P)4d	⁴ D	3/2	0.00 015	10ZAP/JOH
2776.4530	36 006.549	12	3d ² (³ P)4p	z ² S ^o	1/2	–	3d ² (³ P)5s	² P	1/2	0.0006	10ZAP/JOH
2777.7859	35 989.273	7	3d ² (³ P)4p	z ⁴ P ^o	3/2	–	3d ² (³ P)4d	² P	3/2	0.0011	10ZAP/JOH
2778.34 413	35 982.042	151	3d ² (³ P)4p	y ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ D	5/2	0.00 015	10ZAP/JOH
2779.5850	35 965.980	14	3d ² (³ P)4p	y ⁴ D ^o	1/2	–	3d ² (³ P)4d	⁴ D	1/2	0.0005	10ZAP/JOH
2780.38 242	35 955.665	215	3d ² (³ P)4p	y ⁴ D ^o	1/2	–	3d ² (³ P)4d	⁴ F	3/2	0.00 015	10ZAP/JOH
2780.4986	35 954.163	6	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (¹ D)4d	² D	5/2	0.0013	10ZAP/JOH
2781.5402	35 940.70	4	3d ² (³ P)4p	z ⁴ P ^o	1/2	–	3d ² (³ P)4d	² P	1/2	0.0019	10ZAP/JOH
2782.13 595	35 933.004	135	3d ² (³ P)4p	y ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ D	3/2	0.00 015	10ZAP/JOH
2784.1757	35 906.680	11	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (¹ D)4d	² D	5/2	0.0007	10ZAP/JOH
2784.6383	35 900.715	22	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.0004	10ZAP/JOH
2785.81 748	35 885.520	316	3d ² (³ P)4p	y ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ F	5/2	0.00 016	10ZAP/JOH
2786.251	35 879.93	3	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	² D	5/2	0.003	10ZAP/JOH
2786.9788	35 870.567	12	3d ² (³ P)4p	y ⁴ D ^o	3/2	–	3d ² (³ P)4d	⁴ D	1/2	0.0006	10ZAP/JOH
2787.1321	35 868.595	18	3d ² (³ P)4p	z ⁴ P ^o	3/2	–	3d ² (³ P)4d	² P	1/2	0.0005	10ZAP/JOH
2787.82 461	35 859.685	520	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ F	7/2	0.00 016	10ZAP/JOH
2788.6343	35 849.274	18	3d ² (³ P)4p	z ⁴ P ^o	5/2	–	3d ² (³ P)4d	² P	3/2	0.0005	10ZAP/JOH
2790.43 592	35 826.129	221	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ D	5/2	0.00 016	10ZAP/JOH
2793.6841	35 784.476	29	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	² D	5/2	0.0002	10ZAP/JOH
2794.2607	35 777.093	29	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ D	3/2	0.0002	10ZAP/JOH
2795.31 746	35 763.568	222	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ D	7/2	0.00 016	10ZAP/JOH
2795.8888	35 756.260	9	3d ² (³ P)4p	z ⁴ P ^o	1/2	–	3d ² (³ P)4d	⁴ P	1/2	0.0009	10ZAP/JOH
2796.81 395	35 744.433	46	3d ² (³ P)4p	z ⁴ P ^o	1/2	–	3d ² (³ P)4d	⁴ P	3/2	0.00 016	10ZAP/JOH
2797.24 384	35 738.940	59	3d ² (³ P)4p	z ⁴ P ^o	3/2	–	3d ² (³ P)4d	⁴ P	5/2	0.00 016	10ZAP/JOH
2799.09	35 715.38	7	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	² D	5/2	0.02	82HUL/JOH
2799.9546	35 704.341	5	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ P)4d	⁴ F	3/2	0.0016	10ZAP/JOH
2800.46 847	35 697.790	1130	3d ² (³ P)4p	y ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ F	9/2	0.00 016	10ZAP/JOH
2801.53 859	35 684.155	43	3d ² (³ P)4p	z ⁴ P ^o	3/2	–	3d ² (³ P)4d	⁴ P	1/2	0.00 016	10ZAP/JOH
2802.3486	35 673.841	13	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	⁴ P	5/2	0.0006	10ZAP/JOH
2804.78 298	35 642.880	248	3d ² (³ P)4p	y ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ F	7/2	0.00 016	10ZAP/JOH
2804.81 958	35 642.415	470	3d ² (³ F)4p	z ⁴ G ^o	5/2	–	3d ² (³ F)4d	e ⁴ H	7/2	0.00 016	10ZAP/JOH
2806.4716	35 621.435	36	3d ³	a ² P	1/2	–	3d ² (³ P)4p	y ² P ^o	1/2	0.0002	10ZAP/JOH
2807.4259	35 609.328	20	3d ² (³ P)4p	y ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ D	5/2	0.0004	10ZAP/JOH
2808.24 338	35 598.962	143	3d ² (³ P)4p	z ⁴ P ^o	5/2	–	3d ² (³ P)4d	⁴ P	5/2	0.00 016	10ZAP/JOH
2809.2122	35 586.685	6	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (³ F)4d	² P	3/2	0.0013	10ZAP/JOH
2809.6958	35 580.561	13	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	e ² G	7/2	0.0006	10ZAP/JOH
2810.22 854	35 573.816	590	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)4d	e ⁴ H	9/2	0.00 016	10ZAP/JOH
2810.29 885	35 572.926	103	3d ³	a ² P	3/2	–	3d ² (³ P)4p	y ² P ^o	3/2	0.00 016	10ZAP/JOH
2812.0206	35 551.146	7	3d ³	a ⁴ P	1/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.0011	10ZAP/JOH
2812.3673	35 546.764	27	3d ² (³ P)4p	y ⁴ D ^o	7/2	–	3d ² (³ P)4d	⁴ D	7/2	0.0003	10ZAP/JOH
2813.50 767	35 532.357	48	3d ² (³ P)4p	z ⁴ P ^o	5/2	–	3d ² (³ P)4d	⁴ P	3/2	0.00 016	10ZAP/JOH
2814.53	35 519.39	7	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.02	82HUL/JOH
2815.5455	35 506.641	15	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.0006	10ZAP/JOH
2816.3533	35 496.457	20	3d ³	a ² P	3/2	–	3d ² (³ P)4p	y ² P ^o	1/2	0.0004	10ZAP/JOH
2817.81 434	35 478.053	780	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)4d	e ⁴ H	11/2	0.00 016	10ZAP/JOH
2819.86 547	35 452.248	82	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)4d	e ⁴ H	7/2	0.00 016	10ZAP/JOH
2820.3612	35 446.017	19	3d ² (³ F)4s	a ² F	5/2	–	3d ² (¹ D)4p	y ² F ^o	7/2	0.0004	10ZAP/JOH
2821.25 173	35 434.829	70	3d ² (³ F)4p	z ⁴ G ^o	5/2	–	3d ² (³ F)4d	e ⁴ G	7/2	0.00 016	10ZAP/JOH
2821.3220	35 433.947	13	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (¹ D)4d	² G	7/2	0.0006	10ZAP/JOH
2827.11 403	35 361.355	115	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)4d	e ⁴ G	9/2	0.00 016	10ZAP/JOH
2828.05 795	35 349.553	1180	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ F)4d	e ⁴ H	13/2	0.00 016	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2828.64 508	35 342.216	136	3d ² (³ F)4p	z ⁴ G ^o	5/2	–	3d ² (³ F)4d	e ⁴ G	5/2	0.00 016	10ZAP/JOH
2828.81 397	35 340.106	130	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)4d	e ⁴ H	9/2	0.00 016	10ZAP/JOH
2832.17 531	35 298.165	208	3d ² (³ F)4s	a ² F	5/2	–	3d ² (¹ D)4p	y ² F ^o	5/2	0.00 016	10ZAP/JOH
2834.01 126	35 275.299	118	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)4d	e ⁴ G	11/2	0.00 016	10ZAP/JOH
2836.47 506	35 244.660	121	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)4d	e ⁴ G	7/2	0.00 016	10ZAP/JOH
2838.59	35 218.45	7	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)4d	e ⁴ H	7/2	0.02	82HUL/JOH
2839.63 498	35 205.442	122	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ F)4d	e ⁴ H	11/2	0.00 016	10ZAP/JOH
2839.81 666	35 203.190	16	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (¹ D)4d	² P	1/2	0.00 005	10ZAP/JOH
2841.93 492	35 176.952	292	3d ² (³ F)4s	a ² F	7/2	–	3d ² (¹ D)4p	y ² F ^o	7/2	0.00 016	10ZAP/JOH
2843.94 80	35 152.053	14	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)4d	e ⁴ G	5/2	0.00 006	10ZAP/JOH
2845.92 429	35 127.644	129	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)4d	e ⁴ G	9/2	0.00 016	10ZAP/JOH
2846.99 894	35 114.385	55	3d ² (¹ G)4p	z ² H ^o	9/2	–	3d ² (¹ G)4d	² H	9/2	0.00 016	10ZAP/JOH
2851.10 150	35 063.860	123	3d ³	a ² P	1/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.00 016	10ZAP/JOH
2851.79	35 055.38	7	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	e ² G	9/2	0.02	82HUL/JOH
2852.88	35 041.98	7	3d ² (³ P)4s	b ⁴ P	1/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.02	82HUL/JOH
2853.24 11	35 037.568	11	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ F)4d	² P	3/2	0.00 007	10ZAP/JOH
2853.93 08	35 029.101	31	3d ² (³ F)4s	a ² F	7/2	–	3d ² (¹ D)4p	y ² F ^o	5/2	0.00 002	10ZAP/JOH
2854.92 48	35 016.905	10	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ F)4d	⁴ P	3/2	0.00 008	10ZAP/JOH
2855.41 07	35 010.947	14	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)4d	e ⁴ G	7/2	0.00 006	10ZAP/JOH
2856.08 435	35 002.689	167	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ F)4d	e ⁴ G	11/2	0.00 016	10ZAP/JOH
2856.19 435	35 001.341	42	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	⁴ P	5/2	0.00 016	10ZAP/JOH
2856.61 38	34 996.202	9	3d ³	b ² D ²	3/2	–	3d ² (¹ G)4p	x ² F ^o	5/2	0.00 009	10ZAP/JOH
2857.60 586	34 984.053	111	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (¹ D)4d	² G	7/2	0.00 016	10ZAP/JOH
2857.91 47	34 980.273	6	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (¹ D)4d	² P	3/2	0.00 14	10ZAP/JOH
2858.41 05	34 974.206	22	3d ² (³ F)4s	a ² F	5/2	–	3d ² (¹ D)4p	y ² D ^o	3/2	0.00 004	10ZAP/JOH
2860.66 603	34 946.631	59	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	⁴ P	3/2	0.00 016	10ZAP/JOH
2861.30 15	34 938.870	16	3d ³	a ² P	3/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.00 005	10ZAP/JOH
2861.84 393	34 932.248	230	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	⁴ P	5/2	0.00 016	10ZAP/JOH
2862.31 937	34 926.446	177	3d ³	a ² P	3/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.00 016	10ZAP/JOH
2862.76 503	34 921.009	57	3d ² (¹ G)4p	z ² H ^o	11/2	–	3d ² (¹ G)4d	² H	11/2	0.00 016	10ZAP/JOH
2864.06 357	34 905.177	50	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ F)4d	⁴ P	1/2	0.00 016	10ZAP/JOH
2868.18 40	34 855.034	11	3d ² (³ F)4p	z ⁴ G ^o	11/2	–	3d ² (³ F)4d	e ⁴ G	9/2	0.00 007	10ZAP/JOH
2868.50 346	34 851.153	125	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	⁴ P	3/2	0.00 016	10ZAP/JOH
2868.74 087	34 848.269	49	3d ² (³ F)4s	a ² F	5/2	–	3d ² (¹ D)4p	y ² D ^o	5/2	0.00 016	10ZAP/JOH
2869.84 156	34 834.904	52	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	⁴ P	1/2	0.00 016	10ZAP/JOH
2869.96 647	34 833.388	134	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (¹ D)4d	² G	9/2	0.00 016	10ZAP/JOH
2874.11 0	34 783.18	4	3d ³	a ² G	7/2	–	3d ² (¹ G)4p	y ² G ^o	9/2	0.00 2	10ZAP/JOH
2874.67 66	34 776.316	36	3d ² (¹ G)4p	x ² F ^o	7/2	–	3d ² (¹ G)4d	² F	7/2	0.00 002	10ZAP/JOH
2875.31 339	34 768.615	51	3d ² (³ F)4p	z ² D ^o	5/2	–	3d ² (³ F)4d	² P	3/2	0.00 017	10ZAP/JOH
2875.64 80	34 764.569	32	3d ² (³ F)4p	z ² D ^o	3/2	–	3d ² (³ F)4d	² P	1/2	0.00 002	10ZAP/JOH
2875.87 41	34 761.836	18	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (¹ D)4d	² P	1/2	0.00 005	10ZAP/JOH
2877.43 487	34 742.982	178	3d ³	a ² G	7/2	–	3d ² (¹ G)4p	y ² G ^o	7/2	0.00 017	10ZAP/JOH
2877.49 947	34 742.202	45	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (¹ D)4d	² F	5/2	0.00 017	10ZAP/JOH
2877.95 10	34 736.751	8	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (¹ D)4d	² P	3/2	0.00 11	10ZAP/JOH
2880.29 52	34 708.481	9	3d ³	b ² D ²	5/2	–	3d ² (¹ G)4p	x ² F ^o	7/2	0.00 009	10ZAP/JOH
2884.10 208	34 662.670	214	3d ³	a ² G	9/2	–	3d ² (¹ G)4p	y ² G ^o	9/2	0.00 017	10ZAP/JOH
2887.45 3	34 622.45	9	3d ³	a ² G	9/2	–	3d ² (¹ G)4p	y ² G ^o	7/2	0.00 3	01PIC/THO
2887.93 94	34 616.615	21	3d ² (¹ G)4p	x ² F ^o	5/2	–	3d ² (¹ G)4d	² F	5/2	0.00 004	10ZAP/JOH
2888.42 35	34 610.813	24	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (¹ D)4d	² P	3/2	0.00 003	10ZAP/JOH
2888.92 893	34 604.758	49	3d ² (³ F)4s	a ² F	5/2	–	3d ² (¹ D)4p	z ² P ^o	3/2	0.00 017	10ZAP/JOH
2890.42 446	34 586.854	69	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (¹ D)4d	² F	7/2	0.00 017	10ZAP/JOH
2891.06 378	34 579.206	69	3d ² (³ F)4s	a ² F	7/2	–	3d ² (¹ D)4p	y ² D ^o	5/2	0.00 017	10ZAP/JOH
2894.43 56	34 538.926	5	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (¹ D)4d	² P	3/2	0.00 12	10ZAP/JOH
2895.79	34 522.72	7	3d ² (³ F)4s	a ⁴ F	7/2	–	3d ² (³ F)4p	z ² G ^o	9/2	0.02	82HUL/JOH
2897.81 13	34 498.693	10	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (¹ D)4d	² F	5/2	0.00 008	10ZAP/JOH
2901.96	34 449.41	7	3d ² (³ F)4s	a ⁴ F	5/2	–	3d ² (³ F)4p	z ² G ^o	7/2	0.02	82HUL/JOH
2902.82 11	34 439.156	5	3d ² (³ F)4p	z ⁴ F ^o	5/2	–	3d ² (³ F)4d	⁴ D	5/2	0.00 17	10ZAP/JOH
2902.88 47	34 438.402	8	3d ² (³ F)4p	z ⁴ F ^o	3/2	–	3d ² (³ F)4d	⁴ D	3/2	0.00 11	10ZAP/JOH
2905.90 28	34 402.635	9	3d ² (¹ G)4p	z ² H ^o	9/2	–	3d ² (¹ G)4d	² G	7/2	0.00 009	10ZAP/JOH
2906.85 41	34 391.377	8	3d ² (³ F)4p	z ² F ^o	5/2	–	3d ² (³ F)4d	f ² F	7/2	0.00 11	10ZAP/JOH
2908.00 64	34 377.750	21	3d ² (³ F)4p	z ⁴ F ^o	3/2	–	3d ² (³ F)4d	⁴ D	1/2	0.00 04	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
2908.4290	34 372.755	18	3d ² (¹ D)4p	y ² D ^o	3/2	—	3d ² (¹ D)4d	² F	5/2	0.0005	10ZAP/JOH
2909.3415	34 361.975	14	3d ² (³ P)4p	z ⁴ P ^o	1/2	—	3d ² (³ P)4d	⁴ D	3/2	0.0006	10ZAP/JOH
2909.9276	34 355.054	11	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ² G ^o	9/2	0.0008	10ZAP/JOH
2910.6535	34 346.486	6	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)4d	⁴ D	7/2	0.0014	10ZAP/JOH
2911.2957	34 338.910	36	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (³ P)4d	⁴ D	5/2	0.0003	10ZAP/JOH
2913.101	34 317.63		3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ² G ^o	7/2	0.003	01PIC/THO
2913.2189	34 316.242	31	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)4d	⁴ D	3/2	0.0003	10ZAP/JOH
2914.6373	34 299.543	18	3d ² (³ P)4p	z ⁴ P ^o	1/2	—	3d ² (³ P)4d	⁴ D	1/2	0.0005	10ZAP/JOH
2914.7826	34 297.833	20	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)4d	f ² F	7/2	0.0004	10ZAP/JOH
2915.4596	34 289.869	16	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (³ P)4d	⁴ D	3/2	0.0005	10ZAP/JOH
2915.5140	34 289.230	17	3d ² (³ P)4p	z ⁴ P ^o	1/2	—	3d ² (³ P)4d	⁴ F	3/2	0.0005	10ZAP/JOH
2915.9531	34 284.066	27	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)4d	⁴ D	5/2	0.0003	10ZAP/JOH
2916.70	34 275.33	7	3d4s ²	c ² D	5/2	—	3d(² D)4s4p(³ P ^o)	w ² F ^o	7/2	0.02	82HUL/JOH
2918.6276	34 252.651	8	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (³ F)4d	⁴ D	7/2	0.0011	10ZAP/JOH
2919.50 234	34 242.389	41	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (³ P)4d	⁴ F	5/2	0.00 017	10ZAP/JOH
2921.6574	34 217.133	19	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (³ P)4d	⁴ F	3/2	0.0004	10ZAP/JOH
2922.7400	34 204.459	9	3d ² (¹ G)4p	z ² H ^o	11/2	—	3d ² (¹ G)4d	² G	9/2	0.0009	10ZAP/JOH
2923.0539	34 200.786	6	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)4d	f ² F	5/2	0.0015	10ZAP/JOH
2923.2120	34 198.936	11	3d ² (³ P)4p	z ⁴ P ^o	5/2	—	3d ² (³ P)4d	⁴ D	5/2	0.0008	10ZAP/JOH
2923.5688	34 194.763	7	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)4d	e ⁴ H	9/2	0.0012	10ZAP/JOH
2923.9565	34 190.229	12	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (³ F)4d	⁴ D	5/2	0.0007	10ZAP/JOH
2926.6208	34 159.105	27	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)4d	⁴ D	7/2	0.0003	10ZAP/JOH
2927.8030	34 145.312	10	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)4d	e ⁴ H	11/2	0.0009	10ZAP/JOH
2928.076	34 142.13	4	3d ² (¹ D)4p	z ² P ^o	3/2	—	3d ² (¹ D)4d	² S	1/2	0.002	10ZAP/JOH
2928.5194	34 136.960	7	3d ² (¹ D)4p	y ² F ^o	5/2	—	3d ² (¹ D)4d	² F	7/2	0.0012	10ZAP/JOH
2928.56 974	34 136.373	89	3d ² (³ P)4p	z ⁴ P ^o	5/2	—	3d ² (³ P)4d	⁴ D	7/2	0.00 017	10ZAP/JOH
2931.0082	34 107.974	37	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)4d	f ² F	7/2	0.0003	10ZAP/JOH
2931.0962	34 106.951	27	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (³ F)4d	f ² F	5/2	0.0003	10ZAP/JOH
2931.4848	34 102.429	18	3d ² (³ P)4p	z ⁴ P ^o	5/2	—	3d ² (³ P)4d	⁴ F	5/2	0.0005	10ZAP/JOH
2935.97 753	34 050.247	53	3d ² (³ F)4p	z ⁴ F ^o	3/2	—	3d ² (³ F)4d	e ⁴ G	5/2	0.00 017	10ZAP/JOH
2936.1026	34 048.797	9	3d ² (¹ D)4p	y ² F ^o	5/2	—	3d ² (¹ D)4d	² F	5/2	0.0009	10ZAP/JOH
2938.52 772	34 020.698	70	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)4d	e ⁴ G	7/2	0.00 017	10ZAP/JOH
2941.25 930	33 989.104	45	3d ² (¹ D)4p	y ² F ^o	7/2	—	3d ² (¹ D)4d	² F	7/2	0.00 017	10ZAP/JOH
2941.84 849	33 982.297	301	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)4d	e ⁴ G	9/2	0.00 017	10ZAP/JOH
2942.97 819	33 969.253	99	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)4d	⁴ D	7/2	0.00 017	10ZAP/JOH
2945.29 244	33 942.563	407	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)4d	e ⁴ G	11/2	0.00 017	10ZAP/JOH
2946.5492	33 928.086	23	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)4d	e ⁴ G	5/2	0.0003	10ZAP/JOH
2947.9047	33 912.486	6	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (¹ D)4d	² D	5/2	0.0015	10ZAP/JOH
2951.9859	33 865.604	29	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)4d	e ⁴ G	7/2	0.0003	10ZAP/JOH
2954.57 111	33 835.973	920	3d ² (³ F)4p	z ² G ^o	9/2	—	3d ² (³ F)4d	e ² H	11/2	0.00 017	10ZAP/JOH
2956.17	33 817.72	16	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)4d	e ⁴ H	9/2	0.02	82HUL/JOH
2958.1613	33 794.910	20	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)4d	e ⁴ G	9/2	0.0004	10ZAP/JOH
2958.78 553	33 787.780	620	3d ² (³ F)4p	z ² G ^o	7/2	—	3d ² (³ F)4d	e ² H	9/2	0.00 018	10ZAP/JOH
2960.1094	33 772.669	22	3d ² (¹ D)4p	y ² D ^o	3/2	—	3d ² (¹ D)4d	² S	1/2	0.0004	10ZAP/JOH
2966.4239	33 700.782	16	3d ² (¹ D)4p	z ² P ^o	1/2	—	3d ² (¹ D)4d	² S	1/2	0.0005	10ZAP/JOH
2968.1689	33 680.970	12	3d ² (³ P)4p	x ² D ^o	3/2	—	3d ² (³ P)4d	² D	3/2	0.0007	10ZAP/JOH
2971.6563	33 641.445	32	3d ² (³ P)4p	x ² D ^o	5/2	—	3d ² (³ P)4d	² D	5/2	0.0003	10ZAP/JOH
2971.6869	33 641.099	16	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)4d	⁴ D	5/2	0.0005	10ZAP/JOH
2972.7554	33 629.008	8	3d ² (³ P)4p	x ² D ^o	3/2	—	3d ² (³ P)4d	² D	5/2	0.0011	10ZAP/JOH
2975.8086	33 594.506	8	3d ² (¹ G)4p	y ² G ^o	7/2	—	3d ² (³ P)4d	² F	5/2	0.0012	10ZAP/JOH
2976.8589	33 582.653	17	3d ² (³ F)4p	z ² G ^o	9/2	—	3d ² (³ F)4d	e ² H	9/2	0.0005	10ZAP/JOH
2977.2654	33 578.069	11	3d ² (¹ G)4p	y ² G ^o	9/2	—	3d ² (³ P)4d	² F	7/2	0.0008	10ZAP/JOH
2977.68 811	33 573.302	50	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)4d	f ² F	7/2	0.00 018	10ZAP/JOH
2979.06	33 557.83	7	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)4d	f ² F	5/2	0.02	82HUL/JOH
2981.31	33 532.50	0	3d ³	b ⁴ F	9/2	—	3d ² (³ F)4p	z ² G ^o	9/2	0.02	82HUL/JOH
2982.5853	33 518.180	5	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)4d	⁴ D	3/2	0.0018	10ZAP/JOH
2987.38	33 464.38	3	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.02	82HUL/JOH
2990.04 315	33 434.581	67	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)4d	⁴ D	7/2	0.00 018	10ZAP/JOH
2995.6370	33 372.150	36	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)4d	⁴ D	5/2	0.0003	10ZAP/JOH
2997.777	33 348.33	3	3d ² (³ P)4p	z ⁴ S ^o	3/2	—	3d ² (¹ D)4d	² S	1/2	0.003	10ZAP/JOH
3004.0039	33 279.204	5	3d ² (³ F)4p	z ² G ^o	7/2	—	3d ² (³ F)4d	e ² G	9/2	0.0018	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3008.310	33 231.57	4	3d ³	a ² H	9/2	–	3d ² (¹ G)4p	z ² H ^o	11/2	0.002	10ZAP/JOH
3017.18 349	33 133.841	120	3d ³	a ² H	11/2	–	3d ² (¹ G)4p	z ² H ^o	11/2	0.00 018	10ZAP/JOH
3018.13 596	33 123.385	45	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (³ P)4d	² D	3/2	0.00 018	10ZAP/JOH
3022.63 588	33 074.075	159	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (³ F)4d	e ² G	9/2	0.00 018	10ZAP/JOH
3023.66 852	33 062.780	106	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)4d	e ² G	7/2	0.00 018	10ZAP/JOH
3025.1204	33 046.912	21	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (³ P)4d	² D	3/2	0.0005	10ZAP/JOH
3029.72 799	32 996.657	103	3d ³	a ² H	9/2	–	3d ² (¹ G)4p	z ² H ^o	9/2	0.00 018	10ZAP/JOH
3029.88 373	32 994.961	102	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (³ P)4d	² D	5/2	0.00 018	10ZAP/JOH
3036.775	32 920.09	4	3d ³	b ² D ₂	3/2	–	3d ² (³ P)4p	y ² P ^o	3/2	0.003	01PIC/THO
3038.55 663	32 900.788	48	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	f ² F	7/2	0.00 018	10ZAP/JOH
3038.7261	32 898.953	7	3d ³	a ² H	11/2	–	3d ² (¹ G)4p	z ² H ^o	9/2	0.0013	10ZAP/JOH
3042.53 974	32 857.718	73	3d ² (¹ G)4p	y ² G ^o	7/2	–	3d ² (¹ G)5s	² G	7/2	0.00 019	10ZAP/JOH
3043.8469	32 843.608	20	3d ³	b ² D ₂	3/2	–	3d ² (³ F)4p	y ² P ^o	1/2	0.0005	10ZAP/JOH
3044.95 150	32 831.694	166	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	f ² F	7/2	0.00 019	10ZAP/JOH
3046.13 858	32 818.900	78	3d ² (¹ G)4p	y ² G ^o	9/2	–	3d ² (¹ G)5s	² G	9/2	0.00 019	10ZAP/JOH
3046.68 465	32 813.018	104	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.00 019	10ZAP/JOH
3048.34 838	32 795.110	64	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	⁴ D	5/2	0.00 019	10ZAP/JOH
3048.7616	32 790.665	27	3d ³	b ² D ₂	5/2	–	3d ² (³ P)4p	y ² P ^o	3/2	0.0004	10ZAP/JOH
3051.4230	32 762.067	15	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	⁴ D	7/2	0.0007	10ZAP/JOH
3053.24 941	32 742.470	58	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ F)4d	⁴ D	3/2	0.00 019	10ZAP/JOH
3053.99 208	32 734.508	68	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)5s	⁴ P	5/2	0.00 019	10ZAP/JOH
3054.60 555	32 727.934	59	3d ² (³ F)4p	z ⁴ G ^o	5/2	–	3d ² (³ F)5s	e ⁴ F	5/2	0.00 019	10ZAP/JOH
3056.73 811	32 705.102	100	3d ³	a ⁴ P	1/2	–	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.00 019	10ZAP/JOH
3057.24 918	32 699.635	116	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	⁴ D	5/2	0.00 019	10ZAP/JOH
3057.39 290	32 698.098	47	3d ² (³ F)4s	a ⁴ F	3/2	–	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.00 019	10ZAP/JOH
3057.87 229	32 692.972	167	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	⁴ D	7/2	0.00 019	10ZAP/JOH
3058.08 763	32 690.670	261	3d ³	a ⁴ P	5/2	–	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.00 019	10ZAP/JOH
3058.427	32 687.04	4	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (³ P)5s	⁴ P	5/2	0.002	10ZAP/JOH
3058.91 596	32 681.818	57	3d ² (³ F)4p	z ⁴ D ^o	1/2	–	3d ² (³ F)4d	⁴ D	1/2	0.00 019	10ZAP/JOH
3059.42 869	32 676.341	81	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)5s	e ⁴ F	7/2	0.00 019	10ZAP/JOH
3059.73 528	32 673.067	67*	3d ² (³ F)4s	a ⁴ F	5/2	–	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.00 019	10ZAP/JOH
3059.73 528	32 673.067	67*	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.00 019	10ZAP/JOH
3059.81 675	32 672.197	88	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	⁴ D	3/2	0.00 019	10ZAP/JOH
3060.67	32 663.09	3	3d ³	b ² F	7/2	–	3d ² (² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH
3062.23 733	32 646.372	41	3d ² (¹ G)4p	x ² F ^o	7/2	–	3d ² (¹ G)4d	² G	9/2	0.00 019	10ZAP/JOH
3063.21 555	32 635.947	291	3d ² (³ F)4p	z ⁴ G ^o	5/2	–	3d ² (³ F)5s	e ⁴ F	3/2	0.00 019	10ZAP/JOH
3063.4304	32 633.658	38	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)5s	⁴ P	3/2	0.0003	10ZAP/JOH
3063.4915	32 633.007	20	3d ³	a ⁴ P	1/2	–	3d ² (³ P)4p	z ⁴ P ^o	1/2	0.0005	10ZAP/JOH
3063.7232	32 630.540	33	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	⁴ D	5/2	0.0003	10ZAP/JOH
3064.07 117	32 626.834	66	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)5s	e ⁴ F	9/2	0.00 019	10ZAP/JOH
3065.05 545	32 616.357	41	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	f ² F	5/2	0.00 019	10ZAP/JOH
3065.50 763	32 611.546	48	3d ² (³ F)4p	z ⁴ D ^o	3/2	–	3d ² (³ F)4d	⁴ D	1/2	0.00 019	10ZAP/JOH
3066.21 819	32 603.989	700	3d ² (³ F)4s	a ⁴ F	5/2	–	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.00 019	10ZAP/JOH
3066.34 625	32 602.6274	550	3d ² (³ F)4s	a ⁴ F	3/2	–	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.00 019	09ALD
3066.50 441	32 600.946	94	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	z ⁴ P ^o	1/2	0.00 019	10ZAP/JOH
3067.9446	32 585.643	13	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (³ P)4d	² P	3/2	0.0008	10ZAP/JOH
3068.78 475	32 576.722	62	3d ² (³ F)4p	z ⁴ D ^o	5/2	–	3d ² (³ F)4d	⁴ D	3/2	0.00 019	10ZAP/JOH
3069.2399	32 571.891	14	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ P)5s	⁴ P	1/2	0.0007	10ZAP/JOH
3071.23 869	32 550.694	123	3d ³	a ⁴ P	5/2	–	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.0002	10ZAP/JOH
3071.5631	32 547.256	7	3d ² (³ F)4p	z ⁴ D ^o	7/2	–	3d ² (³ F)4d	f ² F	5/2	0.0013	10ZAP/JOH
3072.10 711	32 541.493	690	3d ² (³ F)4s	a ⁴ F	7/2	–	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.00 019	10ZAP/JOH
3072.45 892	32 537.767	409	3d ² (³ F)4p	z ⁴ G ^o	7/2	–	3d ² (³ F)5s	e ⁴ F	5/2	0.00 019	10ZAP/JOH
3072.97 005	32 532.3551	1100	3d ² (³ F)4s	a ⁴ F	3/2	–	3d ² (³ F)4p	z ⁴ D ^o	1/2	0.00 009	09ALD
3075.1617	32 509.170	24	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (³ P)4d	² P	3/2	0.0004	10ZAP/JOH
3075.22 389	32 508.513	1480	3d ² (³ F)4s	a ⁴ F	5/2	–	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.00 019	10ZAP/JOH
3078.64 422	32 472.398	1870	3d ² (³ F)4s	a ⁴ F	7/2	–	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.00 019	10ZAP/JOH
3079.3463	32 464.995	12	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (³ P)4d	² P	1/2	0.0008	10ZAP/JOH
3080.14 525	32 456.574	125 bl	3d ² (³ P)4p	x ² D ^o	5/2	–	3d ² (³ P)4d	² F	7/2	0.00 019	10ZAP/JOH
3080.6413	32 451.348	33	3d ² (¹ G)4p	x ² F ^o	5/2	–	3d ² (¹ G)4d	² G	7/2	0.0003	10ZAP/JOH
3081.46 897	32 442.632	580	3d ² (³ F)4p	z ⁴ G ^o	9/2	–	3d ² (³ F)5s	e ⁴ F	7/2	0.00 019	10ZAP/JOH
3083.58 205	32 420.401	77	3d ² (³ P)4p	x ² D ^o	3/2	–	3d ² (³ P)4d	² F	5/2	0.00 019	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3086.6163	32 388.532	5	3d ² (³ P)4p	y ² P ^o	3/2	—	3d ² (³ P)4d	² P	1/2	0.0019	10ZAP/JOH
3088.02 562	32 373.751	2350	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.00 019	10ZAP/JOH
3089.39 995	32 359.350	322	3d ² (¹ G)4s	b ² G	7/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.00 019	10ZAP/JOH
3089.88 924	32 354.226	800	3d ² (³ F)4p	z ⁴ G ^o	11/2	—	3d ² (³ F)5s	e ⁴ F	9/2	0.00 019	10ZAP/JOH
3091.63 10	32 335.999	8	3d ² (³ P)4p	y ⁴ D ^o	3/2	—	3d ² (³ P)5s	⁴ P	5/2	0.00 12	10ZAP/JOH
3092.15 12	32 330.559	10	3d ² (³ P)4p	y ⁴ D ^o	1/2	—	3d ² (³ P)5s	⁴ P	3/2	0.00 10	10ZAP/JOH
3096.41 62	32 286.029	13	3d ³	b ² D2	3/2	—	3d ² (³ P)4p	x ² D ^o	3/2	0.00 08	10ZAP/JOH
3096.94 25	32 280.542	5	3d ² (³ P)4p	y ² P ^o	1/2	—	3d ² (³ P)4d	⁴ P	1/2	0.00 19	10ZAP/JOH
3097.18 193	32 278.047	282	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.00 019	10ZAP/JOH
3097.60 75	32 273.613	8	3d ³	b ² D2	3/2	—	3d ² (³ P)4p	x ² D ^o	5/2	0.00 12	10ZAP/JOH
3098.07 200	32 268.774	49	3d ² (³ P)4p	y ⁴ D ^o	1/2	—	3d ² (³ P)5s	⁴ P	1/2	0.00 019	10ZAP/JOH
3101.30 406	32 235.146	73	3d ² (³ P)4p	y ⁴ D ^o	3/2	—	3d ² (³ P)5s	⁴ P	3/2	0.00 019	10ZAP/JOH
3101.52 76	32 232.823	19	3d ³	a ² P	3/2	—	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.00 05	10ZAP/JOH
3102.97 11	32 217.829	15	3d ³	a ² P	1/2	—	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.00 07	10ZAP/JOH
3103.80 288	32 209.195	440	3d ² (¹ G)4s	b ² G	9/2	—	3d ² (¹ G)4p	x ² F ^o	7/2	0.00 019	10ZAP/JOH
3104.58 83	32 201.047	24	3d ² (¹ G)4s	b ² G	7/2	—	3d ² (¹ G)4p	x ² F ^o	7/2	0.00 04	10ZAP/JOH
3105.08 028	32 195.945	264	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.00 019	10ZAP/JOH
3105.43 73	32 192.244	7	3d ² (³ P)4p	y ² P ^o	3/2	—	3d ² (³ P)4d	⁴ P	3/2	0.00 14	10ZAP/JOH
3106.23 055	32 184.023	580	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ P)4p	z ⁴ P ^o	5/2	0.00 019	10ZAP/JOH
3106.61 107	32 180.081	74	3d ² (³ P)4p	y ⁴ D ^o	5/2	—	3d ² (³ P)5s	⁴ P	5/2	0.00 019	10ZAP/JOH
3107.25 842	32 173.377	48	3d ² (³ P)4p	y ⁴ D ^o	3/2	—	3d ² (³ P)5s	⁴ P	1/2	0.00 019	10ZAP/JOH
3108.87 9	32 156.61	7	3d ³	b ² D2	5/2	—	3d ² (³ P)4p	x ² D ^o	3/2	0.00 03	01PIC/THO
3110.08 01	32 144.188	28	3d ³	b ² D2	5/2	—	3d ² (³ P)4p	x ² D ^o	5/2	0.00 04	10ZAP/JOH
3110.67 220	32 138.070	85	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.00 019	10ZAP/JOH
3112.04 933	32 123.849	52	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ P)4p	z ⁴ P ^o	1/2	0.00 019	10ZAP/JOH
3115.05 40	32 092.865	7	3d ³	a ² P	3/2	—	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.00 14	10ZAP/JOH
3116.37 765	32 079.234	143	3d ² (³ P)4p	y ⁴ D ^o	5/2	—	3d ² (³ P)5s	⁴ P	3/2	0.00 019	10ZAP/JOH
3117.66 630	32 065.975	237	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ P)4p	z ⁴ P ^o	1/2	0.00 019	10ZAP/JOH
3118.82 18	32 054.095	12	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.00 08	10ZAP/JOH
3119.79 992	32 044.046	249	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.00 019	10ZAP/JOH
3121.59 79	32 025.590	26	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.00 04	10ZAP/JOH
3122.06 93	32 020.755	22	3d ³	a ² P	3/2	—	3d ² (³ P)4p	z ⁴ P ^o	1/2	0.00 05	10ZAP/JOH
3127.68 374	31 963.277	320 bl	3d ² (³ P)4p	y ⁴ D ^o	7/2	—	3d ² (³ P)5s	⁴ P	5/2	0.00 020	10ZAP/JOH
3127.84 991	31 961.579	200	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (³ F)5s	e ² F	5/2	0.00 020	10ZAP/JOH
3128.48 334	31 955.108	261	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)5s	e ² F	7/2	0.00 020	10ZAP/JOH
3130.79 847	31 931.479	385	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.00 020	10ZAP/JOH
3143.68 0	31 800.65	3	3d ³	a ² G	7/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.00 03	10ZAP/JOH
3143.75 461	31 799.887	303	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.00 020	10ZAP/JOH
3144.71 85	31 790.140	16	3d ³	b ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.00 06	10ZAP/JOH
3145.09 3	31 786.36	3	3d ² (³ P)4p	y ² P ^o	3/2	—	3d ² (³ P)4d	² F	5/2	0.00 03	10ZAP/JOH
3145.39 66	31 783.287	8	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.00 13	10ZAP/JOH
3148.03 612	31 756.639	404	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.00 020	10ZAP/JOH
3152.25 017	31 714.187	297	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.00 020	10ZAP/JOH
3154.19 244	31 694.659	243	3d ³	b ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.00 020	10ZAP/JOH
3155.63 756	31 680.145	45	3d ³	a ² G	9/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.00 020	10ZAP/JOH
3155.66 794	31 679.840	223	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.00 020	10ZAP/JOH
3155.83 33	31 678.180	11	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)5s	e ² F	5/2	0.00 09	10ZAP/JOH
3157.39 342	31 662.528	44	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.00 020	10ZAP/JOH
3161.20 158	31 624.387	600	3d ³	b ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	1/2	0.00 020	10ZAP/JOH
3161.76 918	31 618.710	910	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.00 020	10ZAP/JOH
3162.56 58	31 610.746	1310	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.00 02	10ZAP/JOH
3164.90 48	31 587.385	230	3d ² (¹ S)4s	a ² S	1/2	—	3d ² (¹ S)4p	² P ^o	3/2	0.00 02	10ZAP/JOH
3165.25 83	31 583.857	6	3d ³	a ² G	7/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.00 17	10ZAP/JOH
3166.05 39	31 575.921	40	3d ² (¹ D)4p	z ² P ^o	3/2	—	3d ² (¹ D)5s	² D	3/2	0.00 03	10ZAP/JOH
3166.36 69	31 572.800	146	3d ² (¹ D)4p	z ² P ^o	3/2	—	3d ² (¹ D)5s	² D	5/2	0.00 02	10ZAP/JOH
3168.51 83	31 551.363	1900	3d ³	b ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.00 02	10ZAP/JOH
3174.80 07	31 488.930	145	3d ² (¹ S)4s	a ² S	1/2	—	3d ² (¹ S)4p	² P ^o	1/2	0.00 02	10ZAP/JOH
3175.55 12	31 481.489	82	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)5s	e ⁴ F	9/2	0.00 02	10ZAP/JOH
3178.49 03	31 452.379	112	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	7/2	0.00 02	10ZAP/JOH
3180.15 01	31 435.964	85	3d ² (³ F)4p	z ⁴ F ^o	3/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.00 02	10ZAP/JOH
3181.72 20	31 420.434	181	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)5s	e ² F	7/2	0.00 02	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3182.5308	31 412.449	125	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)5s	e ² F	5/2	0.0002	10ZAP/JOH
3184.1169	31 396.802	25	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0004	10ZAP/JOH
3189.4835	31 343.976	271	3d ² (³ F)4p	z ⁴ F ^o	3/2	—	3d ² (³ F)5s	e ⁴ F	3/2	0.0002	10ZAP/JOH
3190.8728	31 330.330	1550	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.0002	10ZAP/JOH
3190.9786	31 329.291	297	3d ² (¹ D)4p	y ² D ^o	5/2	—	3d ² (¹ D)5s	² D	5/2	0.0002	10ZAP/JOH
3192.2691	31 316.626	13	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0008	10ZAP/JOH
3192.5569	31 313.803	357	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.0002	10ZAP/JOH
3194.2417	31 297.287	550	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)5s	e ⁴ F	7/2	0.0002	10ZAP/JOH
3194.5672	31 294.099	840	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)5s	e ⁴ F	9/2	0.0002	10ZAP/JOH
3195.7154	31 282.855	44	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0002	10ZAP/JOH
3197.5186	31 265.214	91	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0002	10ZAP/JOH
3201.9633	31 221.816	87	3d ² (³ F)4p	z ⁴ F ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	3/2	0.0002	10ZAP/JOH
3202.5341	31 216.251	1120	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.0002	10ZAP/JOH
3203.4313	31 207.509	127	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0002	10ZAP/JOH
3203.5376	31 206.473	100	3d ² (¹ D)4p	y ² D ^o	3/2	—	3d ² (¹ D)5s	² D	3/2	0.0002	10ZAP/JOH
3203.8580	31 203.353	98	3d ² (¹ D)4p	y ² D ^o	3/2	—	3d ² (¹ D)5s	² D	5/2	0.0002	10ZAP/JOH
3206.0029	31 182.478	9	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.0011	10ZAP/JOH
3207.2769	31 170.092	11	3d ² (¹ G)4p	y ² G ^o	7/2	—	3d ² (¹ D)4d	² G	7/2	0.0009	10ZAP/JOH
3208.4483	31 158.712	128	3d ² (³ F)4p	z ⁴ F ^o	7/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.0002	10ZAP/JOH
3210.9356	31 134.576	98	3d ² (¹ D)4p	z ² P ^o	1/2	—	3d ² (¹ D)5s	² D	3/2	0.0002	10ZAP/JOH
3211.7058	31 127.110	12	3d ² (¹ G)4p	y ² G ^o	9/2	—	3d ² (¹ D)4d	² G	9/2	0.0008	10ZAP/JOH
3213.1214	31 113.397	46	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0002	10ZAP/JOH
3213.4828	31 109.898	107	3d ² (³ F)4p	z ⁴ F ^o	9/2	—	3d ² (³ F)5s	e ⁴ F	7/2	0.0002	10ZAP/JOH
3214.0667	31 104.246	15	3d ² (³ F)4p	z ² F ^o	7/2	—	3d ² (³ F)5s	e ⁴ F	9/2	0.0007	10ZAP/JOH
3214.1068	31 103.858	9	3d ³	a ² H	9/2	—	3d ² (¹ G)4p	y ² G ^o	9/2	0.0011	10ZAP/JOH
3214.5242	31 099.820	7	3d ³	d ² D1	3/2	—	3d ² (¹ S)4p	² P ^o	3/2	0.0014	10ZAP/JOH
3214.7670	31 097.471	333	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0002	10ZAP/JOH
3216.8700	31 077.142	95	3d ² (¹ G)4p	x ² F ^o	7/2	—	3d ² (³ P)4d	² D	5/2	0.0002	10ZAP/JOH
3216.8968	31 076.883	33	3d ³	a ² G	7/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.0003	10ZAP/JOH
3217.0543	31 075.362	1730	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ F ^o	9/2	0.0002	10ZAP/JOH
3218.2658	31 063.664	449	3d ³	a ² H	9/2	—	3d ² (¹ G)4p	y ² G ^o	7/2	0.0002	10ZAP/JOH
3219.110	31 055.51	3	3d ² (³ F)4p	z ² G ^o	7/2	—	3d ² (³ F)4d	f ² F	7/2	0.003	10ZAP/JOH
3220.4690	31 042.413	64	3d ³	d ² D1	5/2	—	3d ² (¹ S)4p	² P ^o	3/2	0.0002	10ZAP/JOH
3222.8413	31 019.564	1930	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0002	10ZAP/JOH
3224.2370	31 006.137	540	3d ³	a ² H	11/2	—	3d ² (¹ G)4p	y ² G ^o	9/2	0.0002	10ZAP/JOH
3224.7325	31 001.373	41	3d ³	d ² D1	3/2	—	3d ² (¹ S)4p	² P ^o	1/2	0.0002	10ZAP/JOH
3226.7690	30 981.808	139	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0002	10ZAP/JOH
3227.698	30 972.888	5	3d ² (³ F)4p	z ² F ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	3/2	0.002	10ZAP/JOH
3227.9172	30 970.788	59	3d ² (¹ G)4p	x ² F ^o	5/2	—	3d ² (³ P)4d	² D	3/2	0.0002	10ZAP/JOH
3228.6046	30 964.194	740	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.0002	10ZAP/JOH
3229.18 948	30 958.5857	1460	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.00 010	09ALD
3229.4188	30 956.387	780	3d ³	a ² G	9/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.0002	10ZAP/JOH
3231.3137	30 938.235	239	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0002	10ZAP/JOH
3232.2753	30 929.031	600	3d ³	a ² G	7/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.0002	10ZAP/JOH
3232.7249	30 924.730	102	3d ² (¹ G)4p	z ² H ^o	9/2	—	3d ² (¹ G)5s	² G	7/2	0.0002	10ZAP/JOH
3233.3391	30 918.855	7 bl	3d ² (¹ G)4p	x ² F ^o	5/2	—	3d ² (³ P)4d	² D	5/2	0.0015	10ZAP/JOH
3234.5146	30 907.619	4760	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ F ^o	9/2	0.0002	10ZAP/JOH
3236.1189	30 892.297	520	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0002	10ZAP/JOH
3236.5720	30 887.973	4090	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0002	10ZAP/JOH
3237.1436	30 882.519	265	3d ² (¹ D)4p	y ² F ^o	5/2	—	3d ² (¹ D)5s	² D	3/2	0.0002	10ZAP/JOH
3239.0366	30 864.471	3470	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0002	10ZAP/JOH
3239.6608	30 858.524	830	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0002	10ZAP/JOH
3240.0980	30 854.360	21	3d ² (³ F)4p	z ² G ^o	7/2	—	3d ² (³ F)4d	⁴ D	5/2	0.0005	10ZAP/JOH
3240.5152	30 850.388	56	3d ² (³ F)4p	z ² G ^o	9/2	—	3d ² (³ F)4d	f ² F	7/2	0.0002	10ZAP/JOH
3240.6954	30 848.673	15	3d ³	b ⁴ F	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0007	10ZAP/JOH
3241.98 253	30 836.4256	3130	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.00 011	09ALD
3247.7020	30 782.122	6	3d ² (³ P)4p	z ⁴ S ^o	3/2	—	3d ² (¹ D)5s	² D	3/2	0.0018	10ZAP/JOH
3248.0292	30 779.021	11	3d ² (³ P)4p	z ⁴ S ^o	3/2	—	3d ² (¹ D)5s	² D	5/2	0.0009	10ZAP/JOH
3248.5979	30 773.633	2670	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ F)4p	y ⁴ D ^o	7/2	0.0002	10ZAP/JOH
3248.6937	30 772.726	131	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0002	10ZAP/JOH
3248.8675	30 771.080	36	3d ² (³ F)4p	z ² G ^o	7/2	—	3d ² (³ F)4d	f ² F	5/2	0.0003	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3249.3662	30 766.357	69	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0002	10ZAP/JOH
3251.3143	30 747.923	26	3d ² (³ F)4p	z ⁴ D ^o	5/2	—	3d ² (³ F)5s	e ² F	7/2	0.0004	10ZAP/JOH
3251.9078	30 742.312	1500	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.0002	10ZAP/JOH
3252.9057	30 732.881	1890	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0002	10ZAP/JOH
3252.9372	30 732.584	830	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0002	10ZAP/JOH
3253.0472	30 731.545	520	3d ² (¹ D)4p	y ² F ^o	7/2	—	3d ² (¹ D)5s	² D	5/2	0.0002	10ZAP/JOH
3254.2453	30 720.231	1550	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0002	10ZAP/JOH
3255.1530	30 711.665	27	3d ² (³ F)4p	z ² G ^o	9/2	—	3d ² (³ F)4d	⁴ D	7/2	0.0004	10ZAP/JOH
3257.1470	30 692.864	88	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (³ P)5s	⁴ P	5/2	0.0002	10ZAP/JOH
3257.3238	30 691.198	136	3d ² (¹ G)4p	z ² H ^o	11/2	—	3d ² (¹ G)5s	² G	9/2	0.0002	10ZAP/JOH
3258.6365	30 678.835	7	3d ² (³ F)4p	z ⁴ D ^o	7/2	—	3d ² (³ F)5s	e ² F	7/2	0.0015	10ZAP/JOH
3260.2010	30 664.113	79	3d ² (³ P)4p	z ⁴ P ^o	1/2	—	3d ² (³ P)5s	⁴ P	3/2	0.0002	10ZAP/JOH
3260.2701	30 663.463	69 bl	3d ³	a ⁴ P	1/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0002	10ZAP/JOH
3261.5845	30 651.107	1320	3d ² (¹ G)4s	b ² G	9/2	—	3d ² (¹ G)4p	z ² H ^o	11/2	0.0002	10ZAP/JOH
3261.6114	30 650.854	1460	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.0002	10ZAP/JOH
3263.6831	30 631.398	89	3d ³	a ⁴ P	3/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0002	10ZAP/JOH
3266.7821	30 602.341	14	3d ² (³ P)4p	z ⁴ P ^o	1/2	—	3d ² (³ P)5s	⁴ P	1/2	0.0007	10ZAP/JOH
3267.8841	30 592.022	26	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (³ P)5s	⁴ P	3/2	0.0004	10ZAP/JOH
3270.6166	30 566.464	12	3d ² (³ F)4p	z ⁴ D ^o	3/2	—	3d ² (³ F)5s	e ² F	5/2	0.0009	10ZAP/JOH
3271.6479	30 556.829	710	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.0002	10ZAP/JOH
3272.0758	30 552.833	720*	3d ² (³ P)4p	z ⁴ P ^o	5/2	—	3d ² (³ P)5s	⁴ P	5/2	0.0002	10ZAP/JOH
3272.0758	30 552.833	720*	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.0002	10ZAP/JOH
3273.444	30 540.06	4	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	—	3d ² (³ F)6s	² F	5/2	0.003	10ZAP/JOH
3274.4147	30 531.010	12	3d ³	a ⁴ P	3/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.0009	10ZAP/JOH
3274.4967	30 530.245	76	3d ² (³ P)4p	z ⁴ P ^o	3/2	—	3d ² (³ P)5s	⁴ P	1/2	0.0002	10ZAP/JOH
3275.2902	30 522.849	56	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0002	10ZAP/JOH
3276.0535	30 515.738	8	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.0014	10ZAP/JOH
3276.7717	30 509.050	167	3d ³	a ⁴ P	5/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0002	10ZAP/JOH
3276.9917	30 507.001	29	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0003	10ZAP/JOH
3278.2878	30 494.941	800	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.0002	10ZAP/JOH
3278.9186	30 489.074	1000	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0002	10ZAP/JOH
3279.9875	30 479.139	102	3d ³	a ² G	7/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0002	10ZAP/JOH
3282.3271	30 457.414	610	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ P)4p	y ⁴ D ^o	1/2	0.0002	10ZAP/JOH
3282.9064	30 452.040	99	3d ² (³ P)4p	z ⁴ P ^o	5/2	—	3d ² (³ P)5s	⁴ P	3/2	0.0002	10ZAP/JOH
3285.0247	30 432.404	15	3d ² (³ P)4p	y ² P ^o	3/2	—	3d ² (¹ D)4d	² D	5/2	0.0008	10ZAP/JOH
3285.9581	30 423.760	23	3d ² (³ F)4p	z ² D ^o	3/2	—	3d ² (³ F)5s	e ⁴ F	3/2	0.0004	10ZAP/JOH
3286.7734	30 416.213	9	3d ² (¹ G)4s	b ² G	9/2	—	3d ² (¹ G)4p	z ² H ^o	9/2	0.0012	10ZAP/JOH
3287.6542	30 408.065	1200	3d ² (¹ G)4s	b ² G	7/2	—	3d ² (¹ G)4p	z ² H ^o	9/2	0.0002	10ZAP/JOH
3288.1411	30 403.562	82	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0002	10ZAP/JOH
3288.4274	30 400.915	84	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.0002	10ZAP/JOH
3288.5762	30 399.540	138	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ P)4p	y ⁴ D ^o	1/2	0.0002	10ZAP/JOH
3290.1097	30 385.371	40	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	7/2	0.0003	10ZAP/JOH
3298.17	30 311.07	0	3d ³	a ⁴ P	1/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.02	82HUL/JOH
3301.6726	30 278.961	16	3d ³	a ⁴ P	3/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.0007	10ZAP/JOH
3302.0954	30 275.084	38	3d ³	b ⁴ F	9/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0003	10ZAP/JOH
3305.1840	30 246.794	25	3d ² (³ F)4p	z ² D ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.0004	10ZAP/JOH
3306.02	30 239.11	0	3d ³	a ⁴ P	1/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.02	82HUL/JOH
3307.7210	30 223.596	21	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0005	10ZAP/JOH
3308.8034	30 213.709	468	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ F ^o	9/2	0.0002	10ZAP/JOH
3309.5318	30 207.059	28	3d ³	a ⁴ P	3/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0004	10ZAP/JOH
3312.930	30 176.08	0	3d ³	a ² P	1/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.003	01PIC/THO
3315.3228	30 154.297	330	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0002	10ZAP/JOH
3318.0227	30 129.761	580	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0002	10ZAP/JOH
3319.0817	30 120.148	11	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0010	10ZAP/JOH
3321.6983	30 096.423	680	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0002	10ZAP/JOH
3322.9339	30 085.232	4330	3d ³	b ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ F ^o	9/2	0.0002	10ZAP/JOH
3323.3879	30 081.122	18	3d ³	a ⁴ P	3/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0007	10ZAP/JOH
3326.6971	30 051.200	36	3d ³	a ² P	3/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0003	10ZAP/JOH
3326.7617	30 050.617	452	3d ³	b ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0002	10ZAP/JOH
3326.8446	30 049.868	42	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.0002	10ZAP/JOH
3329.4537	30 026.320	3090	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0002	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3331.5102	30 007.786	10	3d ² (³ P)4p	y ⁴ D ^o	7/2	—	3d ² (¹ D)5s	² D	5/2	0.0011	10ZAP/JOH
3332.1084	30 002.399	1090	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.0002	10ZAP/JOH
3332.81	29 996.06	0	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.02	82HUL/JOH
3335.1912	29 974.668	2270	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0002	10ZAP/JOH
3336.9587	29 958.792	9	3d ³	a ⁴ P	5/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0012	10ZAP/JOH
3337.8471	29 950.818	66	3d ³	a ² P	3/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.0002	10ZAP/JOH
3340.3411	29 928.457	1810	3d ³	b ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.0002	10ZAP/JOH
3341.8741	29 914.728	6200 bl	3d ² (³ F)4s	a ² F	5/2	—	3d ² (³ F)4p	z ² G ^o	7/2	0.0002	10ZAP/JOH
3343.7615	29 897.843	475	3d ³	b ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0002	10ZAP/JOH
3344.3850	29 892.270	49	3d ² (¹ G)4p	x ² F ^o	7/2	—	3d ² (³ P)4d	² F	7/2	0.0002	10ZAP/JOH
3346.7409	29 871.228	580	3d ³	b ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0002	10ZAP/JOH
3346.9149	29 869.675	20	3d ³	a ⁴ P	1/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0006	10ZAP/JOH
3348.8395	29 852.509	440	3d ³	b ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.0002	10ZAP/JOH
3349.0327	29 850.787	8200	3d ² (³ F)4s	a ² F	7/2	—	3d ² (³ F)4p	z ² G ^o	9/2	0.0002	10ZAP/JOH
3349.4023	29 847.493	8600	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ G ^o	11/2	0.0002	10ZAP/JOH
3350.5111	29 837.616	18	3d ³	a ⁴ P	3/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0007	10ZAP/JOH
3351.5948	29 827.969	860	3d ² (³ F)4p	z ⁴ D ^o	7/2	—	3d ² (³ F)5s	e ⁴ F	9/2	0.0002	10ZAP/JOH
3352.0693	29 823.747	82	3d ³	a ² P	1/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.0002	10ZAP/JOH
3361.066	29 743.92		3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.003	01PIC/THO
3361.2121	29 742.626	8000	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ G ^o	9/2	0.0002	10ZAP/JOH
3362.6429	29 729.971	19	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0006	10ZAP/JOH
3364.5793	29 712.861	550	3d ² (³ F)4p	z ⁴ D ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	7/2	0.0002	10ZAP/JOH
3364.8780	29 710.224	31	3d ² (¹ G)4p	x ² F ^o	5/2	—	3d ² (³ P)4d	² F	5/2	0.0003	10ZAP/JOH
3366.1766	29 698.762	140	3d ³	a ² P	3/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.0002	10ZAP/JOH
3369.2028	29 672.088	57	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0002	10ZAP/JOH
3369.4669	29 669.762	377	3d ² (³ F)4p	z ⁴ D ^o	3/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.0002	10ZAP/JOH
3371.9348	29 648.048	251	3d ² (³ F)4p	z ⁴ D ^o	1/2	—	3d ² (³ F)5s	e ⁴ F	3/2	0.0002	10ZAP/JOH
3372.2062	29 645.662	448	3d ² (³ F)4s	a ² F	7/2	—	3d ² (³ F)4p	z ² G ^o	7/2	0.0002	10ZAP/JOH
3372.4220	29 643.765	118	3d ² (³ F)4p	z ⁴ D ^o	7/2	—	3d ² (³ F)5s	e ⁴ F	7/2	0.0002	10ZAP/JOH
3372.7927	29 640.507	7600	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.0002	10ZAP/JOH
3374.3458	29 626.865	142	3d ³	a ² P	3/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0002	10ZAP/JOH
3379.9132	29 578.065	35	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0003	10ZAP/JOH
3379.9463	29 577.775	100	3d ² (³ F)4p	z ⁴ D ^o	3/2	—	3d ² (³ F)5s	e ⁴ F	3/2	0.0002	10ZAP/JOH
3380.2766	29 574.885	3390	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ G ^o	9/2	0.0002	10ZAP/JOH
3380.3450	29 574.287	130	3d ² (³ F)4p	z ⁴ D ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.0002	10ZAP/JOH
3383.5645	29 546.147	7	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0016	10ZAP/JOH
3383.75 844	29 544.4540	7100	3d ² (³ F)4s	a ⁴ F	3/2	—	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.00 011	09ALD
3386.3647	29 521.716	15	3d ² (³ P)4p	x ² D ^o	3/2	—	3d ² (¹ D)4d	² P	1/2	0.0008	10ZAP/JOH
3387.8334	29 508.918	3990	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.0002	10ZAP/JOH
3388.2631	29 505.176	6	3d ² (³ F)4p	z ⁴ D ^o	7/2	—	3d ² (³ F)5s	e ⁴ F	5/2	0.0020	10ZAP/JOH
3388.7514	29 500.925	182	3d ³	a ² P	3/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0002	10ZAP/JOH
3390.8929	29 482.294	9	3d ² (³ F)4p	z ⁴ D ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	3/2	0.0013	10ZAP/JOH
3394.3677	29 452.114	13	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0009	10ZAP/JOH
3394.5721	29 450.341	3060	3d ² (³ F)4s	a ⁴ F	5/2	—	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.0002	10ZAP/JOH
3395.766	29 439.99	3	3d ³	b ² D ₂	3/2	—	3d ² (³ P)4p	z ⁴ P ^o	3/2	0.004	10ZAP/JOH
3402.4215	29 382.401	205	3d ³	a ² P	1/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0002	10ZAP/JOH
3404.609	29 363.52	4	3d ² (³ P)4p	z ² S ^o	1/2	—	3d ² (³ F)4d	² P	3/2	0.003	10ZAP/JOH
3404.9598	29 360.498	7	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0016	10ZAP/JOH
3407.2022	29 341.175	138	3d ² (³ F)4s	a ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.0002	10ZAP/JOH
3409.8084	29 318.750	162	3d ² (³ F)4s	a ⁴ F	7/2	—	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.0002	10ZAP/JOH
3410.6833	29 311.229	36	3d ² (³ P)4p	x ² D ^o	5/2	—	3d ² (¹ D)4d	² P	3/2	0.0003	10ZAP/JOH
3411.672	29 302.73		3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.003	01PIC/THO
3416.9567	29 257.417	57 bl	3d ³	a ² P	3/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0002	10ZAP/JOH
3417.9217	29 249.157	14	3d ² (¹ D)4p	z ² P ^o	3/2	—	3d ² (³ F)4d	² D	5/2	0.0008	10ZAP/JOH
3422.65	29 208.72	1	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.02	82HUL/JOH
3431.5368	29 133.110	111	3d ² (¹ G)4p	x ² F ^o	7/2	—	3d ² (¹ G)5s	² G	9/2	0.0002	10ZAP/JOH
3431.699	29 131.730	5	3d ² (¹ G)4p	x ² F ^o	7/2	—	3d ² (¹ G)5s	² G	7/2	0.002	10ZAP/JOH
3443.3708	29 032.990	64	3d ² (³ P)4s	b ² P	1/2	—	3d ² (³ P)4p	y ² P ^o	3/2	0.0002	10ZAP/JOH
3444.3059	29 025.108	2260	3d ³	b ⁴ F	9/2	—	3d ² (³ F)4p	z ⁴ G ^o	11/2	0.0002	10ZAP/JOH
3446.1061	29 009.946	11	3d ² (¹ D)4p	y ² F ^o	7/2	—	3d ² (³ F)4d	f ⁴ F	9/2	0.0011	10ZAP/JOH
3450.4476	28 973.446	83	3d ² (¹ G)4p	x ² F ^o	5/2	—	3d ² (¹ G)5s	² G	7/2	0.0002	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3451.5558	28 964.143	30	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (¹ D)4d	² P	1/2	0.0004	10ZAP/JOH
3452.4649	28 956.517	267	3d ² (³ P)4s	b ² P	1/2	–	3d ² (³ P)4p	y ² P ^o	1/2	0.0002	10ZAP/JOH
3456.3842	28 923.683	790	3d ² (³ P)4s	b ² P	3/2	–	3d ² (³ P)4p	y ² P ^o	3/2	0.0002	10ZAP/JOH
3458.8997	28 902.649	20	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)5s	e ² F	7/2	0.0006	10ZAP/JOH
3460.6931	28 887.671	22	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (¹ D)4d	² P	1/2	0.0006	10ZAP/JOH
3461.4955	28 880.975	1840	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4p	z ⁴ G ^o	9/2	0.0002	10ZAP/JOH
3461.6474	28 879.708	36	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (³ F)4d	² D	5/2	0.0004	10ZAP/JOH
3465.5475	28 847.208	137	3d ² (³ P)4s	b ² P	3/2	–	3d ² (³ P)4p	y ² P ^o	1/2	0.0002	10ZAP/JOH
3476.9634	28 752.497	79	3d ³	b ⁴ F	9/2	–	3d ² (³ F)4p	z ⁴ G ^o	9/2	0.0002	10ZAP/JOH
3477.1801	28 750.705	1440	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.0002	10ZAP/JOH
3478.3264	28 741.230	12	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (¹ D)4d	² P	3/2	0.0010	10ZAP/JOH
3480.8838	28 720.115	60	3d ² (¹ D)4s	a ² D	3/2	–	3d ² (³ P)4p	z ² S ^o	1/2	0.0002	10ZAP/JOH
3483.6246	28 697.519	710	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (³ F)5s	e ² F	7/2	0.0002	10ZAP/JOH
3484.5633	28 689.789	25	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (³ F)4d	² D	3/2	0.0005	10ZAP/JOH
3487.6077	28 664.746	55	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (¹ D)4d	² P	3/2	0.0002	10ZAP/JOH
3489.2358	28 651.371	202	3d ² (³ P)4p	x ² D ^o	5/2	–	3d ² (³ P)5s	² P	3/2	0.0002	10ZAP/JOH
3489.7360	28 647.264	134	3d ³	b ⁴ F	7/2	–	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.0002	10ZAP/JOH
3491.0495	28 636.486	1070	3d ³	b ⁴ F	3/2	–	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.0002	10ZAP/JOH
3492.3637	28 625.710	550	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)5s	e ² F	5/2	0.0002	10ZAP/JOH
3500.3332	28 560.538	122	3d ³	b ⁴ F	5/2	–	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.0002	10ZAP/JOH
3500.921	28 555.75	4	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (³ F)4d	² D	5/2	0.003	10ZAP/JOH
3504.8909	28 523.399	1800	3d ² (¹ G)4s	b ² G	9/2	–	3d ² (¹ G)4p	y ² G ^o	9/2	0.0002	10ZAP/JOH
3505.0193	28 522.354	92	3d ² (³ P)4p	x ² D ^o	3/2	–	3d ² (³ P)5s	² P	1/2	0.0002	10ZAP/JOH
3505.8928	28 515.248	8	3d ² (¹ G)4s	b ² G	7/2	–	3d ² (¹ G)4p	y ² G ^o	9/2	0.0016	10ZAP/JOH
3509.8356	28 483.216	51	3d ² (¹ G)4s	b ² G	9/2	–	3d ² (¹ G)4p	y ² G ^o	7/2	0.0002	10ZAP/JOH
3510.8399	28 475.069	1410	3d ² (¹ G)4s	b ² G	7/2	–	3d ² (¹ G)4p	y ² G ^o	7/2	0.0002	10ZAP/JOH
3515.2907	28 439.017	37	3d ² (³ P)4p	y ⁴ D ^o	1/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.0004	10ZAP/JOH
3515.4505	28 437.724	30	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (³ F)4d	² D	3/2	0.0004	10ZAP/JOH
3517.5223	28 420.975	67	3d ² (³ P)4p	y ⁴ D ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.0002	10ZAP/JOH
3519.1407	28 407.905	67	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (³ F)4d	² D	5/2	0.0002	10ZAP/JOH
3520.2519	28 398.938	570	3d ² (³ P)4s	b ² P	1/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.0002	10ZAP/JOH
3523.7806	28 370.500	110	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.0002	10ZAP/JOH
3524.84	28 361.97	0	3d4s ²	c ² D	5/2	–	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	0.02	82HUL/JOH
3527.1223	28 343.622	17	3d ² (³ P)4p	y ⁴ D ^o	3/2	–	3d ² (³ F)4d	f ⁴ F	3/2	0.0007	10ZAP/JOH
3533.8545	28 289.627	39	3d ² (³ P)4s	b ² P	3/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.0004	10ZAP/JOH
3534.2832	28 286.196	171	3d ² (³ P)4p	y ⁴ D ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	9/2	0.0002	10ZAP/JOH
3535.4075	28 277.201	950	3d ² (³ P)4s	b ² P	3/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.0003	10ZAP/JOH
3536.9259	28 265.062	23	3d ² (³ P)4p	y ⁴ D ^o	5/2	–	3d ² (³ F)4d	f ⁴ F	5/2	0.0005	10ZAP/JOH
3550.9174	28 153.693	19	3d ² (³ P)4p	y ⁴ D ^o	7/2	–	3d ² (³ F)4d	f ⁴ F	7/2	0.0006	10ZAP/JOH
3552.83	28 138.51	0	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.02	82HUL/JOH
3558.1369	28 096.571	11	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (³ F)4d	⁴ P	5/2	0.0011	10ZAP/JOH
3560.0634	28 081.367	29	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (³ P)5s	² P	3/2	0.0004	10ZAP/JOH
3561.5753	28 069.447	57	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0003	10ZAP/JOH
3561.8933	28 066.941	31	3d ³	a ⁴ P	1/2	–	3d ² (³ P)4p	z ² S ^o	1/2	0.0004	10ZAP/JOH
3565.2939	28 040.171	44	3d ³	b ² D ²	5/2	–	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.0003	10ZAP/JOH
3565.9671	28 034.878	95	3d ³	a ⁴ P	3/2	–	3d ² (³ P)4p	z ² S ^o	1/2	0.0003	10ZAP/JOH
3569.7858	28 004.889	151	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (³ P)5s	² P	3/2	0.0003	10ZAP/JOH
3573.7315	27 973.970	194	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.0003	10ZAP/JOH
3574.9069	27 964.773	37	3d ² (³ P)4p	y ² P ^o	1/2	–	3d ² (³ P)5s	² P	1/2	0.0004	10ZAP/JOH
3584.7101	27 888.299	9	3d ² (³ P)4p	y ² P ^o	3/2	–	3d ² (³ P)5s	² P	1/2	0.0014	10ZAP/JOH
3587.1311	27 869.477	164	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.0003	10ZAP/JOH
3593.0756	27 823.370	24	3d ³	b ² D ²	5/2	–	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.0005	10ZAP/JOH
3596.0467	27 800.383	550	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0003	10ZAP/JOH
3596.5001	27 796.878	7	3d ³	b ² D ²	3/2	–	3d ² (³ P)4p	y ⁴ D ^o	3/2	0.0018	10ZAP/JOH
3605.3047	27 728.997	11	3d ² (³ F)4p	z ² G ^o	7/2	–	3d ² (³ F)5s	e ⁴ F	5/2	0.0012	10ZAP/JOH
3612.6991	27 672.243	81	3d ² (³ P)4p	z ² S ^o	3/2	–	3d ² (³ F)4d	⁴ P	5/2	0.0003	10ZAP/JOH
3613.9767	27 662.461	12	3d ² (³ F)4p	z ² G ^o	9/2	–	3d ² (³ F)5s	e ⁴ F	7/2	0.0010	10ZAP/JOH
3615.32	27 652.21	0	3d ² (¹ S)4s	a ² S	1/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.02	82HUL/JOH
3624.8261	27 579.667	720	3d ³	a ² P	1/2	–	3d ² (³ P)4p	z ² S ^o	1/2	0.0003	10ZAP/JOH
3627.7036	27 557.791	9	3d ² (³ P)4s	b ⁴ P	1/2	–	3d ² (³ P)4p	z ² S ^o	1/2	0.0014	10ZAP/JOH
3632.4144	27 522.053	60	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ F)4d	⁴ P	3/2	0.0003	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
3641.3282	27 454.682	1160	3d ³	a ² P	3/2	–	3d ² (³ P)4p	z ² S ^o	1/2	0.0003	10ZAP/JOH
3642.543	27 445.53	3	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	–	3d ² (¹ G)4d	² G	7/2	0.004	10ZAP/JOH
3643.1039	27 441.301	29	3d ² (¹ G)4p	x ² F ^o	7/2	–	3d ² (¹ D)4d	² G	9/2	0.0004	10ZAP/JOH
3647.2209	27 410.326	31	3d ² (³ P)4p	z ⁴ S ^o	3/2	–	3d ² (³ F)4d	⁴ P	1/2	0.0004	10ZAP/JOH
3648.812	27 398.38	0	3d ³	b ² D ²	3/2	–	3d ² (³ P)4p	z ⁴ S ^o	3/2	0.004	01PIC/THO
3659.6439	27 317.281	41	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ F)4d	² P	3/2	0.0003	10ZAP/JOH
3659.7605	27 316.411	408	3d ³	b ² D ²	5/2	–	3d ² (¹ D)4p	y ² F ^o	7/2	0.0003	10ZAP/JOH
3662.2325	27 297.973	403	3d ³	b ² D ²	3/2	–	3d ² (¹ D)4p	y ² F ^o	5/2	0.0003	10ZAP/JOH
3663.5980	27 287.799	25 bl	3d ² (¹ D)4p	z ² P ^o	3/2	–	3d ² (³ F)4d	² P	1/2	0.0005	10ZAP/JOH
3663.8629	27 285.826	20	3d ² (¹ G)4p	x ² F ^o	5/2	–	3d ² (¹ D)4d	² G	7/2	0.0007	10ZAP/JOH
3676.5950	27 191.337	23	3d ² (¹ D)4p	y ² D ^o	3/2	–	3d ² (³ F)4d	² P	3/2	0.0005	10ZAP/JOH
3679.6777	27 168.558	40	3d ³	b ² D ²	5/2	–	3d ² (¹ D)4p	y ² F ^o	5/2	0.0004	10ZAP/JOH
3680.1989	27 164.710	17	3d ³	d ² D ¹	3/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	1/2	0.0008	10ZAP/JOH
3685.1921	27 127.905	40*	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ² D ^o	3/2	0.0010	28KIE
3685.1921	27 127.905	40*	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ² D ^o	5/2	0.0010	28KIE
3686.344	27 119.426	5	3d ² (¹ D)4p	z ² P ^o	1/2	–	3d ² (³ F)4d	² P	3/2	0.003	10ZAP/JOH
3695.1145	27 055.061	17	3d ³	d ² D ¹	5/2	–	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	0.0008	10ZAP/JOH
3696.362	27 045.927	5	3d ³	b ² D ²	3/2	–	3d ² (¹ D)4p	z ² P ^o	1/2	0.003	10ZAP/JOH
3706.2167	26 974.018	367	3d ³	b ² D ²	3/2	–	3d ² (¹ D)4p	y ² D ^o	3/2	0.0003	10ZAP/JOH
3721.6360	26 862.263	740 bl	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ² F ^o	7/2	0.0003	10ZAP/JOH
3723.6036	26 848.069	12	3d ³	b ² D ²	3/2	–	3d ² (¹ D)4p	y ² D ^o	5/2	0.0011	10ZAP/JOH
3724.0848	26 844.600	18	3d ³	b ² D ²	5/2	–	3d ² (¹ D)4p	y ² D ^o	3/2	0.0008	10ZAP/JOH
3739.599	26 733.23	1	3d ³	b ² F	7/2	–	3d ² (¹ G)4p	x ² F ^o	5/2	0.004	01PIC/THO
3741.6384	26 718.664	1700	3d ³	b ² D ²	5/2	–	3d ² (¹ D)4p	y ² D ^o	5/2	0.0003	10ZAP/JOH
3748.0030	26 673.293	122	3d ³	b ² F	5/2	–	3d ² (¹ G)4p	x ² F ^o	5/2	0.0003	10ZAP/JOH
3757.6850	26 604.569	700	3d ³	b ² D ²	3/2	–	3d ² (¹ D)4p	z ² P ^o	3/2	0.0003	10ZAP/JOH
3759.2915	26 593.200	13 700	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ² F ^o	7/2	0.0003	10ZAP/JOH
3761.3202	26 578.857	11 900	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ² F ^o	5/2	0.0003	10ZAP/JOH
3761.8721	26 574.958	173	3d ³	b ² F	7/2	–	3d ² (¹ G)4p	x ² F ^o	7/2	0.0003	10ZAP/JOH
3770.372	26 515.05	1	3d ³	b ² F	5/2	–	3d ² (¹ G)4p	x ² F ^o	7/2	0.004	01PIC/THO
3774.6467	26 485.022	20	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0007	10ZAP/JOH
3776.0533	26 475.156	107	3d ³	b ² D ²	5/2	–	3d ² (¹ D)4p	z ² P ^o	3/2	0.0003	10ZAP/JOH
3786.3229	26 403.350	28	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ F ^o	9/2	0.0006	10ZAP/JOH
3796.8810	26 329.931	25	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0006	10ZAP/JOH
3799.7870	26 309.795	14	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ² F ^o	5/2	0.0010	10ZAP/JOH
3813.3882	26 215.958	104	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0003	10ZAP/JOH
3814.5796	26 207.770	175	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.0003	10ZAP/JOH
3827.1102	26 121.964	17	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ F)4d	f ² F	7/2	0.0009	10ZAP/JOH
3836.0825	26 060.868	89	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0003	10ZAP/JOH
3847.5417	25 983.252	9	3d ² (¹ D)4p	y ² D ^o	5/2	–	3d ² (³ F)4d	⁴ D	7/2	0.0016	10ZAP/JOH
3858.8839	25 906.883	8	3d ² (³ P)4p	x ² D ^o	5/2	–	3d ² (¹ D)5s	² D	3/2	0.0019	10ZAP/JOH
3859.3475	25 903.771	63	3d ² (³ P)4p	x ² D ^o	5/2	–	3d ² (¹ F)5s	² D	5/2	0.0003	10ZAP/JOH
3860.7350	25 894.462	27	3d ² (³ P)4p	x ² D ^o	3/2	–	3d ² (¹ D)5s	² D	3/2	0.0006	10ZAP/JOH
3882.284	25 750.73		3d ³	a ² G	7/2	–	3d ² (³ F)4p	z ² G ^o	9/2	0.005	01PIC/THO
3900.5389	25 630.222	2350	3d ³	a ² G	9/2	–	3d ² (³ F)4p	z ² G ^o	9/2	0.0003	10ZAP/JOH
3913.4614	25 545.591	1960	3d ³	a ² G	7/2	–	3d ² (³ F)4p	z ² G ^o	7/2	0.0003	10ZAP/JOH
3914.1821	25 540.888	10	3d ² (¹ G)4s	b ² G	9/2	–	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.0015	10ZAP/JOH
3916.7377	25 524.223	28	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (³ F)4d	f ² F	7/2	0.0006	10ZAP/JOH
3921.9026	25 490.610	14	3d ² (³ P)4p	z ⁴ P ^o	5/2	–	3d ² (³ F)4d	⁴ P	5/2	0.0011	10ZAP/JOH
3924.9332	25 470.928	10	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (³ F)4d	⁴ D	5/2	0.0015	10ZAP/JOH
3932.0088	25 425.095	120	3d ³	a ² G	9/2	–	3d ² (³ F)4p	z ² G ^o	7/2	0.0003	10ZAP/JOH
3937.8117	25 387.628	19	3d ² (¹ D)4p	y ² F ^o	5/2	–	3d ² (³ F)4d	f ² F	5/2	0.0008	10ZAP/JOH
3938.1415	25 385.502	12	3d ² (¹ D)4p	y ² F ^o	7/2	–	3d ² (³ F)4d	⁴ D	7/2	0.0012	10ZAP/JOH
3981.9901	25 105.970	34	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.0005	10ZAP/JOH
3987.6065	25 070.610	21	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ G ^o	9/2	0.0008	10ZAP/JOH
4012.3836	24 915.798	190	3d ² (³ F)4s	a ² F	5/2	–	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.0003	10ZAP/JOH
4025.1295	24 836.902	82	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.0003	10ZAP/JOH
4028.3384	24 817.118	132	3d ² (¹ G)4s	b ² G	9/2	–	3d ² (¹ D)4p	y ² F ^o	7/2	0.0003	10ZAP/JOH
4029.68	24 808.85	4	3d ² (¹ G)4s	b ² G	7/2	–	3d ² (¹ D)4p	y ² F ^o	7/2	0.02	82HUL/JOH
4053.8210	24 661.119	86	3d ² (¹ G)4s	b ² G	7/2	–	3d ² (¹ D)4p	y ² F ^o	5/2	0.0003	10ZAP/JOH
4056.185	24 646.745	7	3d ² (³ F)4s	a ² F	7/2	–	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.002	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4064.354	24 597.21		3d ³	b ² F	5/2	—	3d ² (³ P)4p	y ² P ^o	3/2	0.005	01PIC/THO
4082.4549	24 488.152	970 bl	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	—	3d ² (³ P)4d	² F	5/2	0.0003	10ZAP/JOH
4129.161	24 211.17	11	3d ² (¹ G)4s	b ² G	7/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.005	01PIC/THO
4158.2783	24 041.636	66	3d ² (¹ G)4p	y ² G ^o	9/2	—	3d ² (³ F)4d	e ² G	9/2	0.0003	10ZAP/JOH
4161.5293	24 022.855	32	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.0005	10ZAP/JOH
4163.6437	24 010.656	398	3d ³	b ² F	7/2	—	3d ² (³ P)4p	x ² D ^o	5/2	0.0003	10ZAP/JOH
4170.8632	23 969.096	18	3d ² (¹ D)4p	y ² D ^o	5/2	—	3d ² (³ F)5s	e ² F	7/2	0.0010	10ZAP/JOH
4171.9038	23 963.117	259	3d ³	b ² F	5/2	—	3d ² (³ P)4p	x ² D ^o	3/2	0.0003	10ZAP/JOH
4173.5332	23 953.762	50	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0003	10ZAP/JOH
4174.0664	23 950.702	13	3d ³	b ² F	5/2	—	3d ² (³ P)4p	x ² D ^o	5/2	0.0017	98ALL/GAR
4176.6856	23 935.683	11	3d ² (¹ D)4p	z ² P ^o	3/2	—	3d ² (³ F)5s	e ² F	5/2	0.0016	10ZAP/JOH
4184.3108	23 892.065	11	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.0016	10ZAP/JOH
4188.9873	23 865.393	37	3d ² (¹ G)4p	y ² G ^o	7/2	—	3d ² (³ F)4d	e ² G	7/2	0.0005	10ZAP/JOH
4190.16	23 858.69	4	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.02	82HUL/JOH
4219.617	23 692.161	8	3d ² (¹ D)4p	y ² D ^o	5/2	—	3d ² (³ F)5s	e ² F	5/2	0.002	10ZAP/JOH
4227.3336	23 648.913	11	3d ³	a ² G	9/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.0016	10ZAP/JOH
4239.6646	23 580.132	32	3d ² (³ P)4p	x ² D ^o	5/2	—	3d ² (³ F)4d	² D	5/2	0.0005	10ZAP/JOH
4242.166	23 566.228	5	3d ² (¹ D)4p	y ² D ^o	3/2	—	3d ² (³ F)5s	e ² F	5/2	0.004	10ZAP/JOH
4250.645	23 519.220	7	3d ² (¹ D)4p	y ² F ^o	5/2	—	3d ² (³ F)5s	e ² F	7/2	0.003	10ZAP/JOH
4263.2537	23 449.663	13	3d ² (³ P)4p	x ² D ^o	3/2	—	3d ² (³ F)4d	² D	3/2	0.0015	10ZAP/JOH
4283.3831	23 339.465	11	3d ² (¹ G)4p	x ² F ^o	7/2	—	3d ² (¹ D)5s	² D	5/2	0.0017	10ZAP/JOH
4287.8734	23 315.024	104	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0004	10ZAP/JOH
4290.2148	23 302.300	499	3d ³	a ⁴ P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0004	10ZAP/JOH
4294.0939	23 281.250	730	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0004	10ZAP/JOH
4300.0421	23 249.046	1270	3d ³	a ⁴ P	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.0004	10ZAP/JOH
4301.2960	23 242.269	30	3d ² (¹ D)4p	y ² F ^o	5/2	—	3d ² (³ F)5s	e ² F	5/2	0.0006	10ZAP/JOH
4301.9225	23 238.884	226	3d ³	a ⁴ P	1/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.0004	10ZAP/JOH
4307.8657	23 206.824	300	3d ³	a ⁴ P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.0004	10ZAP/JOH
4312.054	23 184.285	6	3d ² (¹ G)4p	x ² F ^o	5/2	—	3d ² (¹ D)5s	² D	3/2	0.003	10ZAP/JOH
4312.8600	23 179.951	270	3d ³	a ⁴ P	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0004	10ZAP/JOH
4314.9708	23 168.612	253	3d ³	a ⁴ P	1/2	—	3d ² (³ F)4p	z ⁴ D ^o	1/2	0.0004	10ZAP/JOH
4316.7941	23 158.826	24	3d ² (³ P)4s	b ² P	1/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.0007	10ZAP/JOH
4320.9504	23 136.550	52	3d ³	a ⁴ P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	1/2	0.0004	10ZAP/JOH
4330.2369	23 086.933	29	3d ² (³ P)4s	b ² P	1/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0006	10ZAP/JOH
4330.6976	23 084.477	31	3d ³	a ⁴ P	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.0006	10ZAP/JOH
4337.264	23 049.528	6	3d ² (³ P)4s	b ² P	3/2	—	3d ² (³ F)4p	z ² P ^o	1/2	0.003	10ZAP/JOH
4337.9143	23 046.074	740	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0004	10ZAP/JOH
4341.3560	23 027.804	61	3d ³	a ² G	7/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0004	10ZAP/JOH
4344.2807	23 012.301	81	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0004	10ZAP/JOH
4350.8376	22 977.621	24	3d ² (³ P)4s	b ² P	3/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.0008	10ZAP/JOH
4359.1769	22 933.665	10	3d ² (³ P)4p	y ² P ^o	3/2	—	3d ² (³ F)4d	² D	5/2	0.0019	10ZAP/JOH
4363.5417	22 910.725	10	3d ² (¹ G)4p	z ² H ^o	9/2	—	3d ² (³ F)4d	e ² H	11/2	0.0019	10ZAP/JOH
4367.6521	22 889.164	55	3d ³	b ² F	7/2	—	3d ² (¹ G)4p	y ² G ^o	9/2	0.0004	10ZAP/JOH
4374.8162	22 851.682	38	3d ² (³ P)4s	b ² P	3/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0006	10ZAP/JOH
4386.8466	22 789.015	42	3d ³	b ² F	5/2	—	3d ² (¹ G)4p	y ² G ^o	7/2	0.0004	10ZAP/JOH
4391.0250	22 767.330	18	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0012	10ZAP/JOH
4394.0588	22 751.611	63	3d ³	a ² P	1/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.0004	10ZAP/JOH
4395.0312	22 746.577	2090	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0004	10ZAP/JOH
4395.8390	22 742.397	45	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	7/2	0.0004	10ZAP/JOH
4398.292	22 729.715	7	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.003	10ZAP/JOH
4399.7652	22 722.103	242	3d ³	a ² P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0004	10ZAP/JOH
4407.672	22 681.342	9	3d ³	a ² P	1/2	—	3d ² (³ F)4p	z ⁴ D ^o	1/2	0.002	10ZAP/JOH
4408.7458	22 675.819	38	3d ² (¹ G)4p	z ² H ^o	11/2	—	3d ² (³ F)4d	e ² H	11/2	0.0006	10ZAP/JOH
4409.235	22 673.30	4	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.005	10ZAP/JOH
4409.520	22 671.839	8	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.003	10ZAP/JOH
4411.0724	22 663.859	60	3d4s ²	c ² D	3/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.0004	10ZAP/JOH
4411.929	22 659.458	7	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ F)4p	z ⁴ D ^o	1/2	0.003	10ZAP/JOH
4412.3305	22 657.397	23	3d ² (¹ G)4p	z ² H ^o	9/2	—	3d ² (³ F)4d	e ² H	9/2	0.0008	10ZAP/JOH
4414.241	22 647.59	4	3d ² (³ P)4p	y ⁴ D ^o	7/2	—	3d ² (³ F)5s	e ² F	7/2	0.005	10ZAP/JOH
4417.7137	22 629.788	353	3d ³	a ⁴ P	3/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0004	10ZAP/JOH
4418.3313	22 626.625	37	3d ³	a ² P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.0006	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
4421.9384	22 608.168	32	3d ² (³ P)4s	b ² P	3/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.0006	10ZAP/JOH
4441.7290	22 507.437	29	3d ³	a ⁴ P	5/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0006	10ZAP/JOH
4443.8007	22 496.944	1460	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0004	10ZAP/JOH
4444.5546	22 493.128	38	3d ³	a ² G	7/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0006	10ZAP/JOH
4450.4822	22 463.170	230	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0004	10ZAP/JOH
4456.649	22 432.09	8	3d4s ²	c ² D	5/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.006	01PIC/THO
4464.4486	22 392.898	92	3d ³	a ⁴ P	1/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0004	10ZAP/JOH
4468.4924	22 372.634	1540	3d ³	a ² G	9/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0004	10ZAP/JOH
4469.1500	22 369.342	16	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0012	10ZAP/JOH
4470.8535	22 360.819	11	3d ³	a ⁴ P	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0016	98ALL/GAR
4488.3247	22 273.779	90	3d4s ²	c ² D	5/2	—	3d ² (¹ G)4p	x ² F ^o	7/2	0.0004	10ZAP/JOH
4493.523	22 248.014	7	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.003	10ZAP/JOH
4500.37	22 214.17	5	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.02	82HUL/JOH
4501.2699	22 209.723	1170	3d ³	a ² G	7/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0004	10ZAP/JOH
4506.7398	22 182.767		3d ³	a ² G	9/2	—	3d ² (³ F)4p	z ⁴ F ^o	9/2	0.0016	98ALL/GAR
4518.3316	22 125.858	16	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.0012	10ZAP/JOH
4524.679	22 094.817	8	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.003	10ZAP/JOH
4525.24	22 092.07	5	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.02	82HUL/JOH
4529.4799	22 071.401	58	3d ³	a ² H	9/2	—	3d ² (³ F)4p	z ² G ^o	9/2	0.0004	10ZAP/JOH
4533.9600	22 049.592	1650	3d ³	a ² P	3/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0004	10ZAP/JOH
4544.0164	22 000.795	14	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0014	10ZAP/JOH
4545.1342	21 995.384	12	3d ³	a ² G	9/2	—	3d ² (³ F)4p	z ⁴ F ^o	7/2	0.0017	10ZAP/JOH
4549.6216	21 973.690	2020	3d ³	a ² H	11/2	—	3d ² (³ F)4p	z ² G ^o	9/2	0.0004	10ZAP/JOH
4549.8127	21 972.767	28	3d ³	a ⁴ P	5/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0008	10ZAP/JOH
4552.289	21 960.813	6	3d ³	a ² G	7/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.004	10ZAP/JOH
4562.029	21 913.93	4	3d ² (¹ G)4p	z ² H ^o	11/2	—	3d ² (³ F)4d	e ² G	9/2	0.005	10ZAP/JOH
4563.7575	21 905.629	1050	3d ³	a ² P	1/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0004	10ZAP/JOH
4566.651	21 891.751	10	3d ² (³ P)4p	x ² D ^o	5/2	—	3d ² (³ F)4d	² P	3/2	0.002	10ZAP/JOH
4568.324	21 883.734	10	3d ² (³ P)4s	b ⁴ P	1/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.002	10ZAP/JOH
4571.9713	21 866.275	1700	3d ³	a ² H	9/2	—	3d ² (³ F)4p	z ² G ^o	7/2	0.0004	10ZAP/JOH
4579.711	21 829.32	4	3d ² (³ P)4p	y ⁴ D ^o	5/2	—	3d ² (³ F)5s	e ⁴ F	7/2	0.005	10ZAP/JOH
4580.435	21 825.871	6	3d ² (³ P)4s	b ⁴ P	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.004	10ZAP/JOH
4583.409	21 811.711	10	3d ³	a ⁴ P	3/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.002	10ZAP/JOH
4589.9466	21 780.643	132	3d ³	a ² P	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0004	10ZAP/JOH
4609.2659	21 689.353		3d ³	a ⁴ P	5/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0017	98ALL/GAR
4626.99	21 606.25	5	3d ² (³ P)4p	x ² D ^o	3/2	—	3d ² (³ F)4d	² P	1/2	0.02	82HUL/JOH
4636.3237	21 562.775	6	3d ³	a ⁴ P	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.0017	98ALL/GAR
4637.2321	21 558.551	128 bl	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	—	3d ² (³ P)4d	⁴ P	5/2	0.0004	10ZAP/JOH
4655.777	21 472.680	5	3d ³	a ⁴ P	1/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.004	10ZAP/JOH
4657.2005	21 466.117	33	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0007	10ZAP/JOH
4708.6622	21 231.514	31	3d ³	a ² P	3/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0007	10ZAP/JOH
4719.510	21 182.713	9	3d ² (³ P)4s	b ⁴ P	5/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.002	10ZAP/JOH
4762.778	20 990.281	9	3d ² (¹ D)4s	a ² D	5/2	—	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.002	10ZAP/JOH
4763.8833	20 985.410	21	3d ³	a ² P	1/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.0011	10ZAP/JOH
4764.524	20 982.589	9	3d ³	a ² P	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.002	10ZAP/JOH
4779.9789	20 914.747	109	3d ² (³ P)4s	b ² P	1/2	—	3d ² (³ P)4p	z ² S ^o	1/2	0.0005	10ZAP/JOH
4791.49	20 864.49	5	3d ² (¹ G)4p	x ² F ^o	7/2	—	3d ² (³ F)4d	e ² H	9/2	0.02	82HUL/JOH
4794.819	20 850.016		3d ³	a ² G	9/2	—	3d ² (³ F)4p	z ⁴ G ^o	9/2	0.003	98ALL/GAR
4798.5316	20 833.885	18	3d ² (¹ D)4s	a ² D	3/2	—	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.0014	10ZAP/JOH
4805.0927	20 805.438	216	3d ² (³ P)4s	b ² P	3/2	—	3d ² (³ P)4p	z ² S ^o	1/2	0.0005	10ZAP/JOH
4849.169	20 616.331	7	3d ³	a ² G	9/2	—	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.003	10ZAP/JOH
4855.9053	20 587.731	18	3d4s ²	c ² D	3/2	—	3d ² (³ P)4p	y ² P ^o	3/2	0.0014	10ZAP/JOH
4865.6115	20 546.662	13	3d ³	a ² G	7/2	—	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.0019	10ZAP/JOH
4874.0096	20 511.260	62	3d4s ²	c ² D	3/2	—	3d ² (³ P)4p	y ² P ^o	1/2	0.0005	10ZAP/JOH
4874.598	20 508.786	11 bl	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	—	3d ² (¹ D)4d	² F	7/2	0.002	10ZAP/JOH
4911.1950	20 355.960	109	3d4s ²	c ² D	5/2	—	3d ² (³ P)4p	y ² P ^o	3/2	0.0005	10ZAP/JOH
4981.355	20 069.259		3d ³	b ² D ²	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.002	98ALL/GAR
4983.1554	20 062.009	36	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	3/2	—	3d ² (³ P)4d	⁴ F	5/2	0.0007	10ZAP/JOH
5005.170	19 973.768	10	3d ³	b ² D ²	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	3/2	0.002	98ALL/GAR
5010.2106	19 953.675	17	3d4s ²	c ² D	3/2	—	3d ² (³ P)4p	x ² D ^o	3/2	0.0015	10ZAP/JOH
5013.6862	19 939.843	24	3d ³	b ² D ²	5/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.0010	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
5022.06	19 906.59	5	3d ³	b ² F	7/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.02	82HUL/JOH
5069.092	19 721.900	9	3d4s ²	c ² D	5/2	—	3d ² (³ P)4p	x ² D ^o	3/2	0.003	10ZAP/JOH
5072.2868	19 709.479	43	3d4s ²	c ² D	5/2	—	3d ² (³ P)4p	x ² D ^o	5/2	0.0005	10ZAP/JOH
5083.7408	19 665.073	30	3d ² (¹ G)4p	y ² G ^o	9/2	—	3d ² (³ F)5s	e ² F	7/2	0.0008	10ZAP/JOH
5129.1563	19 490.953	180	3d ² (¹ G)4s	b ² G	9/2	—	3d ² (³ F)4p	z ² G ^o	9/2	0.0005	10ZAP/JOH
5145.6900	19 428.327	21	3d ² (¹ G)4p	y ² G ^o	7/2	—	3d ² (³ F)5s	e ² F	5/2	0.0013	10ZAP/JOH
5154.0682	19 396.746	119	3d ³	b ² D2	3/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0005	10ZAP/JOH
5183.709	19 285.835	8	3d ² (¹ G)4s	b ² G	9/2	—	3d ² (³ F)4p	z ² G ^o	7/2	0.003	10ZAP/JOH
5185.9020	19 277.680	155	3d ² (¹ G)4s	b ² G	7/2	—	3d ² (³ F)4p	z ² G ^o	7/2	0.0005	10ZAP/JOH
5188.6872	19 267.332	550	3d ³	b ² D2	5/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0005	10ZAP/JOH
5211.5305	19 182.880	33	3d ³	b ² F	7/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.0008	10ZAP/JOH
5226.5385	19 127.797	397	3d ³	b ² D2	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0005	10ZAP/JOH
5227.875	19 122.908	12	3d ³	b ² F	5/2	—	3d ² (³ F)4p	y ² F ^o	7/2	0.002	98ALL/GAR
5262.1413	18 998.383	45	3d ³	b ² D2	5/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0006	10ZAP/JOH
5268.6076	18 975.066	22	3d ³	b ² F	5/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.0014	10ZAP/JOH
5336.7860	18 732.659	201	3d ³	b ² D2	5/2	—	3d ² (³ F)4p	z ² F ^o	7/2	0.0006	10ZAP/JOH
5360.12	18 651.12	5	3d ³	b ² F	5/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.02	82HUL/JOH
5379.14	18 585.16	9	3d ³	b ² F	7/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.02	82HUL/JOH
5381.0212	18 578.667	92	3d ³	b ² D2	3/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0006	10ZAP/JOH
5391.2021	18 543.583	16	3d ² (³ P)4p	x ² D ^o	5/2	—	3d ² (³ F)5s	e ² F	7/2	0.0017	10ZAP/JOH
5418.7676	18 449.252	68	3d ³	b ² D2	5/2	—	3d ² (³ F)4p	z ² F ^o	5/2	0.0006	10ZAP/JOH
5454.07	18 329.84	10	3d ³	b ² D2	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.02	82HUL/JOH
5476.667	18 254.210	11	3d ² (³ P)4p	x ² D ^o	3/2	—	3d ² (³ F)5s	e ² F	5/2	0.003	10ZAP/JOH
5490.693	18 207.580	12	3d ³	b ² D2	3/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.002	10ZAP/JOH
5492.882	18 200.323	6	3d ³	b ² D2	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	5/2	0.005	10ZAP/JOH
5529.98	18 078.22	10	3d ³	b ² D2	5/2	—	3d ² (³ F)4p	z ⁴ F ^o	3/2	0.02	82HUL/JOH
5795.082	17 251.228	10	3d(² D)4s4p(³ P ^o)	w ² D ^o	5/2	—	3d ² (¹ D)5s	² D	5/2	0.003	10ZAP/JOH
5846.59	17 099.24	4	3d ² (³ F)4d	e ⁴ G	7/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.02	82HUL/JOH
5861.59	17 055.48	4	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	² F ^o	7/2	0.02	82HUL/JOH
5862.89	17 051.72	5	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	⁴ F ^o	9/2	0.02	82HUL/JOH
5867.55	17 038.17	4	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	⁴ D ^o	7/2	0.02	82HUL/JOH
5878.229	17 007.214	12	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	⁴ G ^o	11/2	0.003	10ZAP/JOH
5879.14	17 004.57	4	3d ² (³ F)4d	f ² F	5/2	—	3d ² (³ F)4f	² D ^o	5/2	0.02	82HUL/JOH
5886.753	16 982.586	18	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.002	10ZAP/JOH
5887.24	16 981.19	4	3d ² (³ F)4d	e ⁴ G	5/2	—	3d ² (³ F)4f	⁴ F ^o	3/2	0.02	82HUL/JOH
5888.89	16 976.42	4	3d ³	b ² D2	5/2	—	3d ² (³ F)4p	z ⁴ G ^o	7/2	0.02	82HUL/JOH
5889.60	16 974.38	5	3d ² (³ F)4d	e ⁴ G	5/2	—	3d ² (³ F)4f	⁴ G ^o	7/2	0.02	82HUL/JOH
5890.29	16 972.40	4	3d ² (³ F)4d	⁴ D	5/2	—	3d ² (³ F)4f	⁴ S ^o	3/2	0.02	82HUL/JOH
5901.63	16 939.78	5	3d ² (³ F)4d	e ⁴ G	11/2	—	3d ² (³ F)4f	² H ^o	11/2	0.02	82HUL/JOH
5903.725	16 933.766	17	3d ² (³ F)4d	e ⁴ G	7/2	—	3d ² (³ F)4f	⁴ F ^o	7/2	0.002	10ZAP/JOH
5910.08	16 915.55	5	3d ³	b ² D2	3/2	—	3d ² (³ F)4p	z ⁴ G ^o	5/2	0.02	82HUL/JOH
5913.7265	16 905.127	75 bl	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	² I ^o	11/2	0.0007	10ZAP/JOH
5914.0928	16 904.080	19	3d ² (³ F)4d	e ⁴ G	11/2	—	3d ² (³ F)4f	⁴ F ^o	9/2	0.0017	10ZAP/JOH
5919.91	16 887.48	5	3d ² (³ F)4d	e ⁴ G	5/2	—	3d ² (³ F)4f	⁴ D ^o	5/2	0.02	82HUL/JOH
5921.9181	16 881.743	32	3d ² (³ F)4d	e ⁴ G	7/2	—	3d ² (³ F)4f	⁴ G ^o	7/2	0.0011	10ZAP/JOH
5924.271	16 875.037	12	3d ² (³ F)4d	e ⁴ H	9/2	—	3d ² (³ F)4f	² H ^o	11/2	0.003	10ZAP/JOH
5928.5133	16 862.963	26	3d ² (³ F)4d	e ⁴ G	7/2	—	3d ² (³ F)4f	² G ^o	9/2	0.0014	10ZAP/JOH
5929.7106	16 859.558	83	3d ² (³ F)4d	e ⁴ G	11/2	—	3d ² (³ F)4f	⁴ G ^o	11/2	0.0007	10ZAP/JOH
5929.943	16 858.897	8	3d ² (³ F)4d	⁴ D	7/2	—	3d ² (³ F)4f	² D ^o	5/2	0.005	10ZAP/JOH
5930.8511	16 856.316	22	3d ² (³ F)4d	⁴ D	7/2	—	3d ² (³ P)5p	⁴ D ^o	7/2	0.0018	10ZAP/JOH
5933.507	16 848.772	15	3d ² (³ F)4d	⁴ D	5/2	—	3d ² (³ F)4f	⁴ P ^o	5/2	0.002	10ZAP/JOH
5937.3086	16 837.983	23	3d ² (³ F)4d	e ⁴ H	11/2	—	3d ² (³ F)4f	² I ^o	13/2	0.0014	10ZAP/JOH
5937.4218	16 837.662	44	3d ² (³ F)4d	e ⁴ G	5/2	—	3d ² (³ F)4f	⁴ G ^o	5/2	0.0007	10ZAP/JOH
5937.658	16 836.992	8*	3d ² (³ F)4d	f ² F	5/2	—	3d ² (³ F)4f	² F ^o	7/2	0.005	10ZAP/JOH
5937.658	16 836.992	8*	3d ² (³ F)4d	⁴ D	3/2	—	3d ² (³ P)5p	⁴ D ^o	5/2	0.005	10ZAP/JOH
5940.3430	16 829.382	101	3d ² (³ F)4d	e ⁴ G	11/2	—	3d ² (³ F)4f	⁴ H ^o	13/2	0.0007	10ZAP/JOH
5940.7758	16 828.156	29	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	² H ^o	9/2	0.0011	10ZAP/JOH
5950.99	16 799.28	6	3d ² (³ F)4d	e ⁴ G	5/2	—	3d ² (³ F)4f	² G ^o	7/2	0.02	82HUL/JOH
5952.589	16 794.761	14	3d ² (³ F)4d	e ⁴ H	9/2	—	3d ² (³ F)4f	⁴ G ^o	11/2	0.002	10ZAP/JOH
5953.0009	16 793.598	27	3d ² (³ F)4d	e ⁴ G	9/2	—	3d ² (³ F)4f	⁴ I ^o	11/2	0.0014	10ZAP/JOH
5953.98	16 790.84	5	3d ² (³ F)4d	⁴ D	3/2	—	3d ² (³ F)4f	² P ^o	1/2	0.02	82HUL/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
5955.5738	16 786.343	22	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)4f	⁴ P ^o	5/2	0.0018	10ZAP/JOH
5961.333	16 770.127	12	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)4f	⁴ G ^o	9/2	0.003	10ZAP/JOH
5965.289	16 759.006	12	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)4f	⁴ I ^o	9/2	0.003	10ZAP/JOH
5965.8278	16 757.491	6100 bl	3d ² (³ F)4d	e ⁴ G	11/2	–	3d ² (³ F)4f	² I ^o	11/2	0.0007	10ZAP/JOH
5967.18	16 753.70	4	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)4f	² F ^o	7/2	0.02	82HUL/JOH
5969.824	16 746.275	10	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)4f	² G ^o	9/2	0.004	10ZAP/JOH
5971.6465	16 741.163	156	3d ² (³ F)4d	e ⁴ G	5/2	–	3d ² (³ F)4f	⁴ H ^o	7/2	0.0007	10ZAP/JOH
5973.041	16 737.254	11	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)4f	² H ^o	9/2	0.003	10ZAP/JOH
5973.33	16 736.44	4	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)4f	⁴ D ^o	7/2	0.02	82HUL/JOH
5979.143	16 720.174	16	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)4f	² D ^o	5/2	0.002	10ZAP/JOH
5980.0627	16 717.602	36	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ P)5p	⁴ D ^o	7/2	0.0011	10ZAP/JOH
5983.96	16 706.72	5	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)4f	² G ^o	7/2	0.02	82HUL/JOH
5985.91	16 701.28	6	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)4f	⁴ F ^o	9/2	0.02	82HUL/JOH
5987.3840	16 697.160	185	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)4f	⁴ H ^o	9/2	0.0007	10ZAP/JOH
5988.9924	16 692.676	26	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)4f	² I ^o	11/2	0.0014	10ZAP/JOH
5989.4893	16 691.291	36	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)4f	² F ^o	7/2	0.0011	10ZAP/JOH
5990.8375	16 687.535	32	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)4f	⁴ F ^o	9/2	0.0011	10ZAP/JOH
5992.62	16 682.56	5	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)4f	² F ^o	5/2	0.02	82HUL/JOH
5994.9602	16 676.059	245	3d ² (³ F)4d	e ⁴ G	11/2	–	3d ² (³ F)4f	⁴ I ^o	13/2	0.0007	10ZAP/JOH
6001.4000	16 658.165	210	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)4f	⁴ H ^o	11/2	0.0007	10ZAP/JOH
6001.8904	16 656.804	39	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)4f	⁴ G ^o	11/2	0.0011	10ZAP/JOH
6002.4046	16 655.377	74	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)4f	² G ^o	9/2	0.0007	10ZAP/JOH
6003.7520	16 651.639	20	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ P)5p	⁴ D ^o	5/2	0.0018	10ZAP/JOH
6005.200	16 647.625	14	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)4f	⁴ P ^o	5/2	0.003	10ZAP/JOH
6005.805	16 645.947	16	3d ² (³ F)4d	e ⁴ G	11/2	–	3d ² (³ F)4f	⁴ I ^o	11/2	0.002	10ZAP/JOH
6007.116	16 642.313	11	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)4f	⁴ I ^o	9/2	0.003	10ZAP/JOH
6010.79	16 632.14	4	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)4f	⁴ G ^o	9/2	0.02	82HUL/JOH
6011.939	16 628.964	7	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)4f	⁴ F ^o	5/2	0.005	10ZAP/JOH
6012.7827	16 626.630	223	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)4f	⁴ H ^o	13/2	0.0007	10ZAP/JOH
6015.763	16 618.393	15	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)4f	⁴ G ^o	9/2	0.003	10ZAP/JOH
6020.73	16 604.69	4	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)4f	⁴ F ^o	7/2	0.02	82HUL/JOH
6022.696	16 599.264	14	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)4f	² F ^o	5/2	0.003	10ZAP/JOH
6022.90	16 598.69	4*	3d ² (³ F)4d	e ⁴ G	11/2	–	3d ² (³ F)4f	² G ^o	9/2	0.02	82HUL/JOH
6022.90	16 598.69	4*	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)4f	⁴ F ^o	7/2	0.02	82HUL/JOH
6024.9507	16 593.051	33	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)4f	⁴ F ^o	3/2	0.0011	10ZAP/JOH
6029.2780	16 581.142	174	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)4f	⁴ I ^o	11/2	0.0007	10ZAP/JOH
6032.0283	16 573.582	473	3d ² (³ F)4d	e ⁴ H	13/2	–	3d ² (³ F)4f	⁴ I ^o	15/2	0.0007	10ZAP/JOH
6037.9298	16 557.383	50	3d ² (³ F)4d	⁴ D	1/2	–	3d ² (³ F)4f	⁴ D ^o	3/2	0.0007	10ZAP/JOH
6039.6866	16 552.567	28	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)4f	² F ^o	7/2	0.0015	10ZAP/JOH
6040.1048	16 551.421	146	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)4f	⁴ I ^o	9/2	0.0007	10ZAP/JOH
6041.0559	16 548.815	45	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)4f	⁴ F ^o	9/2	0.0007	10ZAP/JOH
6041.877	16 546.566	7	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)4f	⁴ G ^o	7/2	0.005	10ZAP/JOH
6042.2024	16 545.675	61	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)4f	⁴ F ^o	5/2	0.0007	10ZAP/JOH
6045.25	16 537.33	7	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)4f	⁴ G ^o	5/2	0.02	82HUL/JOH
6046.0068	16 535.264	64	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)4f	⁴ D ^o	7/2	0.0007	10ZAP/JOH
6046.5388	16 533.809	39	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)4f	² G ^o	9/2	0.0011	10ZAP/JOH
6053.3124	16 515.308	35	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)4f	⁴ F ^o	7/2	0.0011	10ZAP/JOH
6054.190	16 512.914	11	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ P)5p	⁴ D ^o	5/2	0.003	10ZAP/JOH
6054.271	16 512.693	9	3d ² (³ F)4d	e ⁴ H	13/2	–	3d ² (³ F)4f	⁴ G ^o	11/2	0.004	10ZAP/JOH
6059.1730	16 499.334	38	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)4f	⁴ D ^o	5/2	0.0011	10ZAP/JOH
6062.761	16 489.569	11	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)4f	⁴ H ^o	9/2	0.003	10ZAP/JOH
6065.3549	16 482.518	83	3d ² (³ F)4d	e ⁴ H	13/2	–	3d ² (³ F)4f	⁴ H ^o	13/2	0.0007	10ZAP/JOH
6066.4031	16 479.670	49	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)4f	⁴ G ^o	9/2	0.0007	10ZAP/JOH
6068.7463	16 473.307	121	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)4f	⁴ I ^o	13/2	0.0007	10ZAP/JOH
6072.4388	16 463.290	55	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)4f	⁴ G ^o	7/2	0.0007	10ZAP/JOH
6073.7648	16 459.696	34	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)4f	⁴ D ^o	5/2	0.0011	10ZAP/JOH
6076.2832	16 452.874	41	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)4f	⁴ F ^o	7/2	0.0007	10ZAP/JOH
6077.5284	16 449.503	20	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)4f	⁴ G ^o	5/2	0.0018	10ZAP/JOH
6078.9328	16 445.703	55	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)4f	⁴ H ^o	11/2	0.0007	10ZAP/JOH
6079.8596	16 443.196	39	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)4f	⁴ I ^o	11/2	0.0011	10ZAP/JOH
6080.6857	16 440.962	35	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)4f	⁴ H ^o	7/2	0.0011	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
6102.5443	16382.073	48	3d ² (³ F)4d	⁴ D	7/2	—	3d ² (³ F)4f	² G ^o	9/2	0.0007	10ZAP/JOH
6103.5391	16379.403	58 bl	3d(² D)4s4p(³ P ^o)	⁴ F ^o	7/2	—	3d ² (³ F)4d	f ⁴ F	9/2	0.0007	10ZAP/JOH
6106.4784	16371.519	86	3d ² (³ F)4d	f ² F	5/2	—	3d ² (³ F)4f	² G ^o	7/2	0.0007	10ZAP/JOH
6107.790	16368.004	18	3d ² (³ F)4d	e ⁴ H	9/2	—	3d ² (³ F)4f	⁴ H ^o	9/2	0.002	10ZAP/JOH
6122.307	16329.193	8	3d ² (³ F)4d	e ⁴ H	13/2	—	3d ² (³ F)4f	⁴ I ^o	13/2	0.005	10ZAP/JOH
6123.790	16325.237	10	3d ² (³ F)4d	f ² F	7/2	—	3d ² (³ F)4f	² H ^o	9/2	0.004	10ZAP/JOH
6128.244	16313.373	10	3d ² (³ F)4d	f ² F	5/2	—	3d ² (³ F)4f	⁴ H ^o	7/2	0.004	10ZAP/JOH
6130.357	16307.750	8	3d ² (³ F)4d	e ⁴ H	11/2	—	3d ² (³ F)4f	⁴ H ^o	11/2	0.005	10ZAP/JOH
6133.51	16299.37	6	3d ² (³ F)4d	e ⁴ H	13/2	—	3d ² (³ F)4f	⁴ I ^o	11/2	0.02	82HUL/JOH
6141.517	16278.116	16	3d ² (³ F)4d	⁴ D	7/2	—	3d ² (³ F)4f	⁴ I ^o	9/2	0.002	10ZAP/JOH
6154.664	16243.345	13	3d ² (³ F)4d	f ² F	7/2	—	3d ² (³ F)4f	² G ^o	9/2	0.003	10ZAP/JOH
6164.939	16216.272	11	3d ² (³ F)4d	⁴ D	7/2	—	3d ² (³ F)4f	⁴ H ^o	9/2	0.003	10ZAP/JOH
6165.112	16215.819	6	3d(² D)4s4p(³ P ^o)	⁴ D ^o	5/2	—	3d ² (³ F)4d	f ⁴ F	5/2	0.006	10ZAP/JOH
6194.34	16139.31	6	3d ² (³ F)4d	f ² F	7/2	—	3d ² (³ F)4f	⁴ I ^o	9/2	0.02	82HUL/JOH
6219.92	16072.92	5	3d ² (³ P)4s	b ² P	3/2	—	3d ² (³ F)4p	z ⁴ D ^o	5/2	0.02	82HUL/JOH
6406.21	15605.54	6	3d4s ²	c ² D	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	7/2	0.02	82HUL/JOH
6418.3574	15576.005	23	3d ² (³ F)4d	² P	3/2	—	3d ² (³ F)4f	⁴ S ^o	3/2	0.0016	10ZAP/JOH
6431.394	15544.433	15	3d ² (³ F)4d	² P	1/2	—	3d ² (³ F)4f	² P ^o	1/2	0.003	10ZAP/JOH
6439.500	15524.865	21	3d ² (³ F)4d	² P	3/2	—	3d ² (³ F)4f	² D ^o	5/2	0.002	10ZAP/JOH
6491.5665	15400.347	61	3d ² (³ P)4s	b ² P	3/2	—	3d ² (³ F)4p	z ² D ^o	5/2	0.0008	10ZAP/JOH
6496.50	15388.66	6	3d4s ²	c ² D	5/2	—	3d ² (³ P)4p	y ⁴ D ^o	5/2	0.02	82HUL/JOH
6513.044	15349.564	8	3d ³	d ² D1	3/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.006	10ZAP/JOH
6514.28	15346.66	6	3d ² (³ F)4d	² P	1/2	—	3d ² (³ F)4f	⁴ F ^o	3/2	0.02	82HUL/JOH
6537.50	15292.15	7	3d ³	d ² D1	5/2	—	3d ² (¹ G)4p	x ² F ^o	5/2	0.02	82HUL/JOH
6559.5673	15240.698	47	3d ² (³ P)4s	b ² P	1/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.0009	10ZAP/JOH
6575.91	15202.83	6	3d ² (³ F)4d	² P	3/2	—	3d ² (³ F)4f	² F ^o	5/2	0.02	82HUL/JOH
6605.881	15133.847	10	3d ³	d ² D1	5/2	—	3d ² (¹ G)4p	x ² F ^o	7/2	0.004	10ZAP/JOH
6606.956	15131.385	7	3d ² (³ P)4s	b ² P	3/2	—	3d ² (³ F)4p	z ² D ^o	3/2	0.003	98ALL/GAR
6673.74	14979.97	5	3d ² (³ F)4d	² P	3/2	—	3d ² (³ F)4f	⁴ D ^o	5/2	0.02	82HUL/JOH
6680.129	14965.639	7	3d4s ²	c ² D	3/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.006	10ZAP/JOH
6717.81	14881.70	14	3d4s ²	c ² D	5/2	—	3d ² (¹ D)4p	y ² F ^o	7/2	0.02	82HUL/JOH
6743.1868	14825.691	260 bl	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	—	3d ² (¹ D)4d	² P	3/2	0.0009	10ZAP/JOH
6745.335	14820.969	14	3d ² (³ F)4d	⁴ P	3/2	—	3d ² (³ F)4f	⁴ S ^o	3/2	0.003	10ZAP/JOH
6785.22	14733.85	5	3d4s ²	c ² D	5/2	—	3d ² (¹ D)4p	y ² F ^o	5/2	0.02	82HUL/JOH
6794.53	14713.65	4	3d4s ²	c ² D	3/2	—	3d ² (¹ D)4p	z ² P ^o	1/2	0.02	82HUL/JOH
6814.391	14670.777	20	3d ² (³ F)4d	⁴ P	5/2	—	3d ² (³ F)4f	⁴ S ^o	3/2	0.002	10ZAP/JOH
6827.95	14641.64	6	3d4s ²	c ² D	3/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.02	82HUL/JOH
6872.340	14547.070	18	3d ² (³ F)4d	⁴ P	5/2	—	3d ² (³ F)4f	⁴ P ^o	5/2	0.003	10ZAP/JOH
6907.797	14472.402	19	3d ² (³ F)4d	e ² G	7/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.002	10ZAP/JOH
6919.583	14447.752	17	3d ² (³ F)4d	⁴ P	3/2	—	3d ² (³ F)4f	² F ^o	5/2	0.003	10ZAP/JOH
6925.834	14434.713	10	3d ² (³ F)4d	⁴ P	5/2	—	3d ² (³ F)4f	⁴ D ^o	7/2	0.005	10ZAP/JOH
6927.928	14430.350	12	3d ² (³ F)4d	⁴ P	1/2	—	3d ² (³ F)4f	⁴ F ^o	3/2	0.004	10ZAP/JOH
6936.5740	14412.363	24	3d ² (³ F)4d	⁴ P	5/2	—	3d ² (³ P)5p	⁴ D ^o	5/2	0.0019	10ZAP/JOH
6937.69	14410.05	7	3d4s ²	c ² D	5/2	—	3d ² (¹ D)4p	y ² D ^o	3/2	0.02	82HUL/JOH
6945.350	14394.153	10	3d ² (³ F)4d	⁴ P	3/2	—	3d ² (³ F)4f	⁴ F ^o	5/2	0.005	10ZAP/JOH
6961.4395	14360.884	71	3d ² (³ F)4d	e ² G	9/2	—	3d ² (³ F)4f	² H ^o	11/2	0.0010	10ZAP/JOH
6974.481	14334.031	8	3d ² (³ F)4d	⁴ P	1/2	—	3d ² (³ F)4f	⁴ D ^o	3/2	0.006	10ZAP/JOH
6976.990	14328.876	8	3d ² (³ F)4d	e ² G	9/2	—	3d ² (³ F)4f	² F ^o	7/2	0.006	10ZAP/JOH
6982.3075	14317.964	41	3d ² (³ F)4d	e ² G	7/2	—	3d ² (³ F)4f	² H ^o	9/2	0.0010	10ZAP/JOH
6998.9305	14283.958	37	3d4s ²	c ² D	5/2	—	3d ² (¹ D)4p	y ² D ^o	5/2	0.0015	10ZAP/JOH
7004.687	14272.220	16	3d4s ²	c ² D	3/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.003	10ZAP/JOH
7012.6761	14255.960	26	3d ² (³ F)4d	e ² G	9/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.0020	10ZAP/JOH
7013.215	14254.865	11	3d ² (³ F)4d	e ² G	7/2	—	3d ² (³ F)4f	⁴ G ^o	7/2	0.004	10ZAP/JOH
7027.987	14224.903	11	3d ² (³ F)4d	⁴ P	3/2	—	3d ² (³ F)4f	⁴ D ^o	5/2	0.004	10ZAP/JOH
7033.573	14213.606	9	3d ² (³ F)4d	⁴ P	5/2	—	3d ² (³ F)4f	⁴ F ^o	7/2	0.005	10ZAP/JOH
7050.977	14178.523	18	3d ² (³ F)4d	e ² G	9/2	—	3d ² (³ F)4f	² I ^o	11/2	0.003	10ZAP/JOH
7074.126	14132.126	25	3d ² (³ F)4d	e ² G	7/2	—	3d ² (³ F)4f	⁴ I ^o	9/2	0.002	10ZAP/JOH
7100.408	14079.816	14	3d ² (³ F)4d	e ² G	7/2	—	3d ² (³ F)4f	² G ^o	7/2	0.004	10ZAP/JOH
7105.220	14070.280	10	3d ² (³ F)4d	e ² G	7/2	—	3d ² (³ F)4f	⁴ H ^o	9/2	0.005	10ZAP/JOH
7106.89	14066.98	4	3d ² (³ F)4d	e ² G	9/2	—	3d ² (³ F)4f	⁴ I ^o	11/2	0.02	82HUL/JOH
7118.4684	14044.094	56	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	—	3d ² (¹ G)4d	² D	3/2	0.0010	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
7120.33	14 040.42	4	3d4s ²	c ² D	5/2	—	3d ² (¹ D)4p	z ² P ^o	3/2	0.02	82HUL/JOH
7129.89	14 021.60	4	3d ² (³ F)4d	e ² G	7/2	—	3d ² (³ F)4f	⁴ H ^o	7/2	0.02	82HUL/JOH
7130.96	14 019.49	9	3d ² (³ F)4d	e ² G	9/2	—	3d ² (³ F)4f	² G ^o	9/2	0.02	82HUL/JOH
7138.09	14 005.48	5	3d ² (³ F)4d	² D	3/2	—	3d ² (³ F)4f	⁴ S ^o	3/2	0.02	82HUL/JOH
7198.657	13 887.653	8	3d ² (³ F)4d	² D	5/2	—	3d ² (³ F)4f	⁴ S ^o	3/2	0.007	10ZAP/JOH
7214.729	13 856.716	23	3d ³	b ² F	7/2	—	3d ² (³ F)4p	z ² G ^o	9/2	0.002	10ZAP/JOH
7217.024	13 852.309	13	3d ² (³ F)4d	e ² H	9/2	—	3d ² (³ F)4f	² H ^o	11/2	0.004	10ZAP/JOH
7225.2747	13 836.491	31	3d ² (³ F)4d	² D	5/2	—	3d ² (³ F)4f	² D ^o	5/2	0.0016	10ZAP/JOH
7264.90	13 761.02	6	3d ² (¹ S)4s	a ² S	1/2	—	3d ² (³ P)4p	y ² P ^o	3/2	0.02	82HUL/JOH
7272.10	13 747.39	4	3d ² (³ F)4d	e ² H	9/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.02	82HUL/JOH
7296.675	13 701.098	9	3d ² (³ F)4d	² D	3/2	—	3d ² (³ F)4f	² P ^o	1/2	0.006	10ZAP/JOH
7297.3186	13 699.889	121	3d ² (³ F)4d	e ² H	11/2	—	3d ² (³ F)4f	² I ^o	13/2	0.0011	10ZAP/JOH
7305.51	13 684.52	5	3d ² (¹ S)4s	a ² S	1/2	—	3d ² (³ P)4p	y ² P ^o	1/2	0.02	82HUL/JOH
7313.3018	13 669.948	71	3d ² (³ F)4d	e ² H	9/2	—	3d ² (³ F)4f	² I ^o	11/2	0.0011	10ZAP/JOH
7313.871	13 668.885	17	3d ² (³ F)4d	² D	5/2	—	3d ² (³ F)4f	² F ^o	7/2	0.003	10ZAP/JOH
7323.15	13 651.56	5	3d ² (³ F)4d	² D	5/2	—	3d ² (³ F)4f	⁴ D ^o	7/2	0.02	82HUL/JOH
7351.460	13 598.993	19	3d ² (³ F)4d	e ² H	11/2	—	3d ² (³ F)4f	² H ^o	11/2	0.003	10ZAP/JOH
7354.713	13 592.979	8	3d ² (³ F)4d	e ² H	9/2	—	3d ² (³ F)4f	² H ^o	9/2	0.007	10ZAP/JOH
7355.448	13 591.621	16	3d ³	b ² F	5/2	—	3d ² (³ F)4p	z ² G ^o	7/2	0.003	10ZAP/JOH
7362.354	13 578.871	10	3d ² (³ F)4d	² D	3/2	—	3d ² (³ F)4f	⁴ F ^o	5/2	0.005	10ZAP/JOH
7373.458	13 558.422	13	3d ² (³ F)4d	e ² H	9/2	—	3d ² (³ F)4f	⁴ I ^o	11/2	0.004	10ZAP/JOH
7397.49	13 514.38	5	3d ² (³ F)4d	² D	5/2	—	3d ² (³ F)4f	² F ^o	5/2	0.02	82HUL/JOH
7403.52	13 503.36	3	3d ² (³ F)4d	² D	3/2	—	3d ² (³ F)4f	⁴ F ^o	3/2	0.02	82HUL/JOH
7411.64	13 488.58	3	3d ² (³ F)4d	e ² H	11/2	—	3d ² (³ F)4f	⁴ H ^o	13/2	0.02	82HUL/JOH
7443.705	13 430.471	8	3d ² (³ F)4d	² D	5/2	—	3d ² (³ F)4f	⁴ F ^o	7/2	0.007	10ZAP/JOH
7447.858	13 422.983	13	3d ² (³ F)4d	e ² H	9/2	—	3d ² (³ F)4f	⁴ H ^o	11/2	0.004	10ZAP/JOH
7451.32	13 416.75	3	3d ² (³ F)4d	e ² H	11/2	—	3d ² (³ F)4f	² I ^o	11/2	0.02	82HUL/JOH
7455.28	13 409.62	4	3d ² (³ F)4d	² D	3/2	—	3d ² (³ F)4f	⁴ D ^o	5/2	0.02	82HUL/JOH
7456.65	13 407.16	4	3d ² (³ F)4d	e ² H	9/2	—	3d ² (³ F)4f	⁴ I ^o	9/2	0.02	82HUL/JOH
7519.898	13 294.392	10	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	⁴ P ^o	5/2	0.006	10ZAP/JOH
7531.77	13 273.44	6	3d ³	d ² D1	3/2	—	3d ² (³ P)4p	y ² P ^o	3/2	0.02	82HUL/JOH
7555.436	13 231.860	10	3d ² (³ F)4d	f ⁴ F	9/2	—	3d ² (³ P)5p	⁴ D ^o	7/2	0.006	10ZAP/JOH
7557.82	13 227.69	5	3d ² (³ F)4d	f ⁴ F	3/2	—	3d ² (³ F)4f	² F ^o	5/2	0.02	82HUL/JOH
7564.492	13 216.020	11	3d ³	d ² D1	5/2	—	3d ² (³ P)4p	y ² P ^o	3/2	0.005	10ZAP/JOH
7574.055	13 199.333	10	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	² F ^o	7/2	0.006	10ZAP/JOH
7575.41	13 196.97	8	3d ³	d ² D1	3/2	—	3d ² (³ P)4p	y ² P ^o	1/2	0.02	82HUL/JOH
7576.23	13 195.54	4	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	⁴ F ^o	9/2	0.02	82HUL/JOH
7584.01	13 182.01	4	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	⁴ D ^o	7/2	0.02	82HUL/JOH
7588.61	13 174.02	3	3d ² (³ F)4d	f ⁴ F	3/2	—	3d ² (³ F)4f	⁴ F ^o	5/2	0.02	82HUL/JOH
7616.119	13 126.433	8	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.008	10ZAP/JOH
7653.0588	13 063.075	38	3d ² (³ F)4d	f ⁴ F	9/2	—	3d ² (³ F)4f	⁴ F ^o	9/2	0.0018	10ZAP/JOH
7661.00	13 049.53	4	3d ² (³ F)4d	f ⁴ F	9/2	—	3d ² (³ F)4f	⁴ D ^o	7/2	0.02	82HUL/JOH
7677.69	13 021.16	3	3d ² (³ F)4d	f ⁴ F	5/2	—	3d ² (³ F)4f	⁴ F ^o	3/2	0.02	82HUL/JOH
7679.2292	13 018.557	42	3d ² (³ F)4d	f ⁴ F	9/2	—	3d ² (³ F)4f	⁴ G ^o	11/2	0.0012	10ZAP/JOH
7681.721	13 014.334	18	3d ² (³ F)4d	f ⁴ F	5/2	—	3d ² (³ F)4f	⁴ G ^o	7/2	0.004	10ZAP/JOH
7688.880	13 002.217	7	3d ² (³ F)4d	f ⁴ F	3/2	—	3d ² (³ F)4f	⁴ D ^o	3/2	0.008	10ZAP/JOH
7693.74	12 994.00	4	3d ² (³ F)4d	f ⁴ F	9/2	—	3d ² (³ F)4f	⁴ G ^o	9/2	0.02	82HUL/JOH
7706.791	12 971.999	19	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	² H ^o	9/2	0.003	10ZAP/JOH
7713.381	12 960.916	15	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	⁴ F ^o	7/2	0.004	10ZAP/JOH
7716.909	12 954.991	23	3d ² (³ F)4d	f ⁴ F	3/2	—	3d ² (³ F)4f	⁴ G ^o	5/2	0.002	10ZAP/JOH
7733.33	12 927.48	4	3d ² (³ F)4d	f ⁴ F	5/2	—	3d ² (³ F)4f	⁴ D ^o	5/2	0.02	82HUL/JOH
7746.967	12 904.726	13	3d ² (³ F)5p	⁴ G ^o	7/2	—	3d ² (³ F)5d	⁴ G	9/2	0.005	10ZAP/JOH
7750.577	12 898.715	13	3d ² (³ F)5p	⁴ G ^o	5/2	—	3d ² (³ F)5d	⁴ G	7/2	0.005	10ZAP/JOH
7755.74	12 890.13	4	3d ² (³ F)4d	f ⁴ F	7/2	—	3d ² (³ F)4f	² G ^o	9/2	0.02	82HUL/JOH
7759.080	12 884.581	18	3d ² (³ F)5p	⁴ G ^o	9/2	—	3d ² (³ F)5d	⁴ H	11/2	0.004	10ZAP/JOH
7786.450	12 839.290	15	3d ² (³ F)4d	f ⁴ F	5/2	—	3d ² (³ F)4f	² G ^o	7/2	0.004	10ZAP/JOH
7805.9735	12 807.178	29	3d ² (³ F)5p	⁴ G ^o	5/2	—	3d ² (³ F)5d	⁴ G	5/2	0.0018	10ZAP/JOH
7820.3537	12 783.628	40	3d ² (³ F)5p	⁴ G ^o	7/2	—	3d ² (³ F)5d	⁴ H	7/2	0.0018	10ZAP/JOH
7824.9017	12 776.198	86	3d ² (³ F)5p	⁴ G ^o	11/2	—	3d ² (³ F)5d	⁴ H	13/2	0.0012	10ZAP/JOH
7826.093	12 774.253	14	3d ² (³ F)5p	⁴ G ^o	7/2	—	3d ² (³ F)5d	⁴ G	7/2	0.004	10ZAP/JOH
7831.6887	12 765.126	52	3d ² (³ F)5p	⁴ G ^o	9/2	—	3d ² (³ F)5d	⁴ H	9/2	0.0012	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
7845.098	12 743.308	20	3d ² (³ F)5p	⁴ G ^o	9/2	–	3d ² (³ F)5d	⁴ G	9/2	0.003	10ZAP/JOH
7856.80	12 724.33	5	3d ² (³ F)4d	f ⁴ F	7/2	–	3d ² (³ F)4f	⁴ H ^o	9/2	0.02	82HUL/JOH
7880.434	12 686.167	24	3d ² (³ F)5p	⁴ G ^o	11/2	–	3d ² (³ F)5d	⁴ H	11/2	0.002	10ZAP/JOH
7909.62	12 639.36	8*	3d ³	d ² D1	3/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.02	82HUL/JOH
7909.62	12 639.36	8*	3d(² D)4s4p(¹ P ^o)	v ² F ^o	5/2	–	3d ² (³ F)6s	² F	5/2	0.02	82HUL/JOH
7945.68	12 581.99	5	3d ³	d ² D1	5/2	–	3d ² (³ P)4p	x ² D ^o	3/2	0.02	82HUL/JOH
7953.55	12 569.55	9	3d ³	d ² D1	5/2	–	3d ² (³ P)4p	x ² D ^o	5/2	0.02	82HUL/JOH
7975.776	12 534.518	12	3d ² (³ F)5p	⁴ F ^o	5/2	–	3d ² (³ F)5d	⁴ G	7/2	0.005	10ZAP/JOH
7978.305	12 530.544	18	3d ² (³ F)5p	⁴ F ^o	7/2	–	3d ² (³ F)5d	⁴ G	9/2	0.004	10ZAP/JOH
7981.494	12 525.537	14	3d ² (³ F)5p	⁴ F ^o	9/2	–	3d ² (³ F)5d	⁴ D	7/2	0.004	10ZAP/JOH
7994.387	12 505.337	25	3d ² (³ F)5p	⁴ F ^o	9/2	–	3d ² (³ F)5d	⁴ H	11/2	0.003	10ZAP/JOH
8028.256	12 452.581	5	3d(² D)4s4p(¹ P ^o)	v ² F ^o	5/2	–	3d ² (³ F)6s	⁴ F	7/2	0.013	10ZAP/JOH
8034.453	12 442.976	11	3d ² (³ F)5p	⁴ F ^o	5/2	–	3d ² (³ F)5d	⁴ G	5/2	0.006	10ZAP/JOH
8056.158	12 409.452	10	3d ² (³ F)5p	⁴ F ^o	7/2	–	3d ² (³ F)5d	⁴ H	7/2	0.006	10ZAP/JOH
8071.489	12 385.882	15	3d ² (³ F)5p	⁴ F ^o	9/2	–	3d ² (³ F)5d	⁴ H	9/2	0.005	10ZAP/JOH
8193.962	12 200.754	8	3d ² (³ F)5p	⁴ D ^o	5/2	–	3d ² (³ F)5d	⁴ D	7/2	0.009	10ZAP/JOH
8300.975	12 043.468	22	3d ² (³ F)5p	⁴ D ^o	7/2	–	3d ² (³ F)5d	⁴ D	7/2	0.003	10ZAP/JOH
8605.7778	11 616.909	182 bl	3d(² D)4s4p(³ P ^o)	w ² D ^o	3/2	–	3d ² (³ F)4d	⁴ D	1/2	0.0015	10ZAP/JOH
8648.99	11 558.87	1	3d ² (³ F)5p	⁴ F ^o	7/2	–	3d ² (³ F)6s	² F	7/2	0.02	82HUL/JOH
8714.29	11 472.25	1	3d ² (³ F)5p	⁴ G ^o	7/2	–	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH
8729.34	11 452.47	1	3d ² (³ F)5p	⁴ G ^o	5/2	–	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH
8753.116	11 421.367	7*	3d ² (³ F)4d	f ⁴ F	5/2	–	3d ² (¹ D)5p	² F ^o	7/2	0.011	10ZAP/JOH
8753.116	11 421.367	7*	3d(² D)4s4p(³ P ^o)	² P ^o	3/2	–	3d ² (¹ D)5s	² D	3/2	0.011	10ZAP/JOH
8786.826	11 377.549	15	3d ² (³ F)5p	⁴ G ^o	5/2	–	3d ² (³ F)6s	⁴ F	3/2	0.005	10ZAP/JOH
8825.217	11 328.055	21	3d ² (³ F)5p	⁴ G ^o	7/2	–	3d ² (³ F)6s	⁴ F	5/2	0.004	10ZAP/JOH
8838.394	11 311.167	37	3d ² (³ F)5p	⁴ G ^o	11/2	–	3d ² (³ F)6s	⁴ F	9/2	0.002	10ZAP/JOH
8838.624	11 310.872	27	3d ² (³ F)5p	⁴ G ^o	9/2	–	3d ² (³ F)6s	⁴ F	7/2	0.003	10ZAP/JOH
8918.455	11 209.627	23	3d ² (³ F)5s	e ² F	5/2	–	3d(² D)4s4p(¹ P ^o)	² P ^o	3/2	0.003	10ZAP/JOH
8926.777	11 199.177	39	3d ² (³ F)5s	e ² F	7/2	–	3d ² (³ F)5p	² D ^o	5/2	0.002	10ZAP/JOH
8979.193	11 133.802	21	3d ³	b ² F	7/2	–	3d ² (³ F)4p	z ² D ^o	5/2	0.004	10ZAP/JOH
8981.988	11 130.337	35	3d ² (³ F)5p	⁴ F ^o	9/2	–	3d ² (³ F)6s	⁴ F	9/2	0.002	10ZAP/JOH
9008.078	11 098.101	24	3d ² (³ F)5p	⁴ F ^o	7/2	–	3d ² (³ F)6s	⁴ F	7/2	0.003	10ZAP/JOH
9016.034	11 088.307	13	3d ² (³ F)5p	⁴ F ^o	5/2	–	3d ² (³ F)6s	⁴ F	5/2	0.007	10ZAP/JOH
9027.82	11 073.83	0	3d ³	b ² F	5/2	–	3d ² (³ F)4p	z ² D ^o	5/2	0.02	82HUL/JOH
9126.73	10 953.82	0	3d ² (³ F)5p	⁴ F ^o	7/2	–	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH
9145.21	10 931.68	1	3d ² (³ F)5p	⁴ F ^o	9/2	–	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH
9252.535	10 804.884	19	3d ³	b ² F	5/2	–	3d ² (³ F)4p	z ² D ^o	3/2	0.004	10ZAP/JOH
9388.615	10 648.277	30	3d ² (³ F)5p	⁴ D ^o	7/2	–	3d ² (³ F)6s	⁴ F	9/2	0.003	10ZAP/JOH
9403.30	10 631.65	0	3d ² (³ F)5s	e ² F	5/2	–	3d ² (³ F)5p	² F ^o	7/2	0.02	82HUL/JOH
9425.289	10 606.844	18	3d ² (³ F)5p	⁴ D ^o	5/2	–	3d ² (³ F)6s	⁴ F	7/2	0.005	10ZAP/JOH
9432.150	10 599.129	21	3d ³	b ² F	7/2	–	3d ² (³ F)4p	z ² F ^o	7/2	0.004	10ZAP/JOH
9452.689	10 576.099	10	3d ² (³ F)5p	⁴ D ^o	3/2	–	3d ² (³ F)6s	⁴ F	5/2	0.009	10ZAP/JOH
9520.22	10 501.08	0	3d ² (³ F)5p	⁴ D ^o	3/2	–	3d ² (³ F)6s	⁴ F	3/2	0.02	82HUL/JOH
9550.106	10 468.216	36 bl	3d ² (³ F)5p	² F ^o	7/2	–	3d ² (³ F)5d	⁴ G	5/2	0.003	10ZAP/JOH
9555.27	10 462.56	0	3d ² (³ F)5p	⁴ D ^o	5/2	–	3d ² (³ F)6s	⁴ F	5/2	0.02	82HUL/JOH
9567.28	10 449.43	1	3d ² (³ F)5p	⁴ D ^o	7/2	–	3d ² (³ F)6s	⁴ F	7/2	0.02	82HUL/JOH
9625.876	10 385.816	30	3d ² (³ F)5p	² G ^o	9/2	–	3d ² (³ F)6s	² F	7/2	0.003	10ZAP/JOH
9649.126	10 360.791	22	3d ² (³ F)5p	² G ^o	7/2	–	3d ² (³ F)6s	² F	5/2	0.005	10ZAP/JOH
9654.7612	10 354.744	42	3d ² (³ F)5s	e ² F	7/2	–	3d ² (³ F)5p	² F ^o	7/2	0.0019	10ZAP/JOH
9655.634	10 353.808	32	3d ² (³ F)5s	e ² F	5/2	–	3d ² (³ F)5p	² F ^o	5/2	0.003	10ZAP/JOH
9685.428	10 321.958	5	3d(² D)4s4p(³ P ^o)	⁴ D ^o	7/2	–	3d ² (³ F)5s	e ² F	5/2	0.019	10ZAP/JOH
9803.1455	10 198.011	48	3d ² (³ F)5s	e ⁴ F	7/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.0019	10ZAP/JOH
9821.1575	10 179.308	70	3d ² (³ F)5s	e ⁴ F	5/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.0019	10ZAP/JOH
9841.9479	10 157.805	62	3d ² (³ F)5s	e ⁴ F	3/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.0019	10ZAP/JOH
9907.9369	10 090.152	282	3d ² (³ F)5s	e ⁴ F	3/2	–	3d ² (³ F)5p	⁴ D ^o	1/2	0.0020	10ZAP/JOH
9931.8883	10 065.819	441	3d ² (³ F)5s	e ⁴ F	5/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.0020	10ZAP/JOH
9956.7015	10 040.734	610	3d ² (³ F)5s	e ⁴ F	7/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.0020	10ZAP/JOH
9983.4730	10 013.809	790	3d ² (³ F)5s	e ⁴ F	9/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.0020	10ZAP/JOH
10 286.729	9718.600	12	3d ² (³ F)5p	² F ^o	7/2	–	3d ² (³ F)6s	² F	7/2	0.008	10ZAP/JOH
10 289.534	9715.950	87	3d ² (³ F)5s	e ⁴ F	7/2	–	3d ² (³ F)5p	⁴ F ^o	9/2	0.002	10ZAP/JOH
10 290.083	9715.432	590	3d ² (³ F)5s	e ² F	5/2	–	3d ² (³ F)5p	² G ^o	7/2	0.002	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
10 319.171	9688.046	120	3d ² (³ F)5s	e ⁴ F	5/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.002	10ZAP/JOH
10 319.728	9687.523	680	3d ² (³ F)5s	e ² F	7/2	–	3d ² (³ F)5p	² G ^o	9/2	0.002	10ZAP/JOH
10 364.592	9645.590	97	3d ² (³ F)5s	e ⁴ F	3/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.002	10ZAP/JOH
10 429.396	9585.656	15	3d ² (³ P)5s	⁴ P	3/2	–	3d ² (³ F)4f	⁴ P ^o	5/2	0.008	10ZAP/JOH
10 463.094	9554.784	51	3d ² (³ P)5s	⁴ P	5/2	–	3d ² (³ P)5p	⁴ D ^o	7/2	0.002	10ZAP/JOH
10 464.388	9553.603	610	3d ² (³ F)5s	e ⁴ F	5/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.002	10ZAP/JOH
10 468.916	9549.471	910	3d ² (³ F)5s	e ⁴ F	7/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.002	10ZAP/JOH
10 470.423	9548.096	441	3d ² (³ F)5s	e ⁴ F	3/2	–	3d ² (³ F)5p	⁴ F ^o	3/2	0.002	10ZAP/JOH
10 488.381	9531.748	1350	3d ² (³ F)5s	e ⁴ F	9/2	–	3d ² (³ F)5p	⁴ F ^o	9/2	0.002	10ZAP/JOH
10 565.856	9461.856	99	3d ² (¹ D)5s	² D	5/2	–	3d ² (¹ D)5p	² F ^o	7/2	0.002	10ZAP/JOH
10 572.279	9456.108	95	3d ² (³ F)5s	e ⁴ F	5/2	–	3d ² (³ F)5p	⁴ F ^o	3/2	0.002	10ZAP/JOH
10 578.052	9450.947	14	3d ² (³ P)5s	⁴ P	3/2	–	3d ² (³ P)5p	⁴ D ^o	5/2	0.008	10ZAP/JOH
10 592.004	9438.498	16	3d ² (³ F)5s	e ² F	7/2	–	3d ² (³ F)5p	² G ^o	7/2	0.007	10ZAP/JOH
10 618.408	9415.028	126	3d ² (³ F)5s	e ⁴ F	7/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.002	10ZAP/JOH
10 659.215	9378.984	64	3d ² (¹ D)5s	² D	3/2	–	3d ² (¹ D)5p	² F ^o	5/2	0.002	10ZAP/JOH
10 666.650	9372.447	13	3d ² (³ P)5s	⁴ P	5/2	–	3d ² (³ F)4f	⁴ D ^o	7/2	0.009	10ZAP/JOH
10 674.827	9365.268	95	3d ² (³ F)5s	e ⁴ F	9/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.002	10ZAP/JOH
10 691.211	9350.916	1420	3d ² (³ F)5s	e ⁴ F	9/2	–	3d ² (³ F)5p	⁴ G ^o	11/2	0.002	10ZAP/JOH
10 692.141	9350.102	12	3d ² (³ P)5s	⁴ P	5/2	–	3d ² (³ P)5p	⁴ D ^o	5/2	0.009	10ZAP/JOH
10 707.482	9336.706	1140	3d ² (³ F)5s	e ⁴ F	7/2	–	3d ² (³ F)5p	⁴ G ^o	9/2	0.002	10ZAP/JOH
10 733.743	9313.863	820	3d ² (³ F)5s	e ⁴ F	5/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.002	10ZAP/JOH
10 771.295	9281.392	530	3d ² (³ F)5s	e ⁴ F	3/2	–	3d ² (³ F)5p	⁴ G ^o	5/2	0.002	10ZAP/JOH
10 781.343	9272.742	63 bl	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	–	3d ² (³ F)4d	f ² F	7/2	0.002	10ZAP/JOH
10 879.117	9189.405	63	3d ² (³ F)5s	e ⁴ F	5/2	–	3d ² (³ F)5p	⁴ G ^o	5/2	0.002	10ZAP/JOH
10 895.856	9175.288	87	3d ² (³ F)5s	e ⁴ F	7/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.002	10ZAP/JOH
10 922.981	9152.503	65	3d ² (³ F)5s	e ⁴ F	9/2	–	3d ² (³ F)5p	⁴ G ^o	9/2	0.002	10ZAP/JOH
11 741.585	8514.407	12	3d ² (³ F)5s	e ² F	7/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.011	10ZAP/JOH
12 648.949	7903.633	11	3d ² (³ F)5p	² G ^o	7/2	–	3d ² (³ G)4d	² H	9/2	0.014	10ZAP/JOH
12 990.011	7696.118	21	3d ² (³ F)5p	² G ^o	9/2	–	3d ² (¹ G)4d	² H	11/2	0.008	10ZAP/JOH
13 206.316	7570.064	20	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)5p	² G ^o	7/2	0.009	10ZAP/JOH
13 268.381	7534.654	22	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)5p	² G ^o	9/2	0.009	10ZAP/JOH
13 353.225	7486.780	17	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)5p	² G ^o	7/2	0.011	10ZAP/JOH
13 425.296	7446.589	131	3d ² (³ F)5s	e ² F	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.004	10ZAP/JOH
13 442.863	7436.858	84	3d ² (³ F)5s	e ² F	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	5/2	0.004	10ZAP/JOH
13 863.458	7211.236	25	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.008	10ZAP/JOH
13 929.837	7176.873	53	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.004	10ZAP/JOH
13 984.531	7148.804	135	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.004	10ZAP/JOH
14 007.197	7137.236	37	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.006	10ZAP/JOH
14 033.156	7124.033	49	3d ² (³ F)4d	⁴ D	1/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.004	10ZAP/JOH
14 153.657	7063.381	83	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.004	10ZAP/JOH
14 167.699	7056.380	54	3d ² (³ F)4d	⁴ D	1/2	–	3d ² (³ F)5p	⁴ D ^o	1/2	0.004	10ZAP/JOH
14 172.564	7053.958	111	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.004	10ZAP/JOH
14 218.964	7030.939	48	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)5p	⁴ F ^o	9/2	0.004	10ZAP/JOH
14 233.528	7023.745	27	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.008	10ZAP/JOH
14 254.848	7013.240	15	3d ² (¹ D)4d	² G	7/2	–	3d ² (³ F)4f	² H ^o	9/2	0.014	10ZAP/JOH
14 261.270	7010.082	116	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.004	10ZAP/JOH
14 290.536	6995.726	57	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)5p	⁴ D ^o	1/2	0.004	10ZAP/JOH
14 299.118	6991.527	42	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.004	10ZAP/JOH
14 320.367	6981.153	65	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.004	10ZAP/JOH
14 404.317	6940.466	56	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.004	10ZAP/JOH
14 406.692	6939.322	52	3d ² (³ F)4d	e ⁴ G	5/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.004	10ZAP/JOH
14 523.979	6883.284	590	3d ² (³ F)4d	e ⁴ G	11/2	–	3d ² (³ F)5p	⁴ F ^o	9/2	0.004	10ZAP/JOH
14 563.810	6864.459	441	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.004	10ZAP/JOH
14 588.586	6852.801	25	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.009	10ZAP/JOH
14 594.317	6850.110	15	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)5p	⁴ G ^o	11/2	0.015	10ZAP/JOH
14 601.562	6846.711	350	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.004	10ZAP/JOH
14 611.981	6841.829	266	3d ² (³ F)4d	e ⁴ G	5/2	–	3d ² (³ F)5p	⁴ F ^o	3/2	0.004	10ZAP/JOH
14 631.645	6832.634	48	3d4s ²	c ² D	5/2	–	3d ² (³ F)4p	z ² D ^o	5/2	0.004	10ZAP/JOH
14 711.704	6795.452	26	3d4s ²	c ² D	3/2	–	3d ² (³ F)4p	z ² D ^o	3/2	0.009	10ZAP/JOH
14 770.530	6768.388	25	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)5p	⁴ G ^o	9/2	0.009	10ZAP/JOH
14 877.413	6719.762	23	3d ² (¹ D)4d	² G	9/2	–	3d ² (³ F)4f	⁴ H ^o	7/2	0.009	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed air wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
14 915.834	6702.453	261	3d ² (³ F)4d	e ⁴ G	11/2	–	3d ² (³ F)5p	⁴ G ^o	11/2	0.004	10ZAP/JOH
14 922.217	6699.586	21	3d ² (³ F)4d	e ⁴ G	5/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.011	10ZAP/JOH
14 964.780	6680.531	86	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)5p	⁴ F ^o	9/2	0.004	10ZAP/JOH
14 995.730	6666.743	130	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)5p	⁴ F ^o	9/2	0.004	10ZAP/JOH
15 028.970	6651.998	66	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.005	10ZAP/JOH
15 029.655	6651.695	175	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)5p	⁴ G ^o	9/2	0.005	10ZAP/JOH
15 042.599	6645.971	45	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.005	10ZAP/JOH
15 058.115	6639.123	29	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.007	10ZAP/JOH
15 131.394	6606.971	137	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.005	10ZAP/JOH
15 204.684	6575.124	130	3d ² (³ F)4d	e ⁴ G	5/2	–	3d ² (³ F)5p	⁴ G ^o	5/2	0.005	10ZAP/JOH
15 233.482	6562.694	88	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.005	10ZAP/JOH
15 260.288	6551.166	81	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.005	10ZAP/JOH
15 314.396	6528.020	73	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)5p	⁴ F ^o	9/2	0.005	10ZAP/JOH
15 346.591	6514.325	50	3d ² (³ F)4d	⁴ D	1/2	–	3d ² (³ F)5p	⁴ F ^o	3/2	0.005	10ZAP/JOH
15 353.129	6511.551	1830 bl	3d ² (³ F)4d	f ² F	5/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.005	10ZAP/JOH
15 370.861	6504.039	215	3d ² (³ F)4d	e ⁴ G	11/2	–	3d ² (³ F)5p	⁴ G ^o	9/2	0.005	10ZAP/JOH
15 379.788	6500.264	19 bl	3d ² (³ F)4d	⁴ D	7/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.012	10ZAP/JOH
15 381.108	6499.706	358 bl	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)5p	⁴ G ^o	11/2	0.005	10ZAP/JOH
15 403.454	6490.277	189	3d ² (³ F)4d	e ⁴ G	9/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.005	10ZAP/JOH
15 421.905	6482.512	95	3d ² (³ F)4d	e ⁴ G	7/2	–	3d ² (³ F)5p	⁴ G ^o	5/2	0.005	10ZAP/JOH
15 490.824	6453.671	28	3d ² (³ F)4d	⁴ D	3/2	–	3d ² (³ F)5p	⁴ F ^o	3/2	0.010	10ZAP/JOH
15 525.558	6439.233	164	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)5p	⁴ G ^o	9/2	0.005	10ZAP/JOH
15 552.079	6428.252	36	3d ² (³ F)4d	⁴ D	5/2	–	3d ² (³ F)5p	⁴ F ^o	5/2	0.007	10ZAP/JOH
15 622.235	6399.384	100	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.005	10ZAP/JOH
15 715.168	6361.541	14	3d ² (³ F)4d	f ² F	7/2	–	3d ² (³ F)5p	⁴ F ^o	7/2	0.017	10ZAP/JOH
15 729.885	6355.589	1180	3d ² (³ F)4d	e ⁴ H	13/2	–	3d ² (³ F)5p	⁴ G ^o	11/2	0.005	10ZAP/JOH
15 865.442	6301.286	800	3d ² (³ F)4d	e ⁴ H	11/2	–	3d ² (³ F)5p	⁴ G ^o	9/2	0.005	10ZAP/JOH
15 873.835	6297.954	31	3d4s ²	c ² D	5/2	–	3d ² (³ F)4p	z ² F ^o	7/2	0.008	10ZAP/JOH
15 924.758	6277.815	580	3d ² (³ F)4d	e ⁴ H	9/2	–	3d ² (³ F)5p	⁴ G ^o	7/2	0.005	10ZAP/JOH
15 932.093	6274.925	442	3d ² (³ F)4d	e ⁴ H	7/2	–	3d ² (³ F)5p	⁴ G ^o	5/2	0.005	10ZAP/JOH
16 005.046	6246.323	19	3d4s ²	c ² D	3/2	–	3d ² (³ F)4p	z ² F ^o	5/2	0.013	10ZAP/JOH
16 091.652	6212.705	16	3d ² (¹ D)4d	² F	5/2	–	3d ² (¹ D)5p	² F ^o	5/2	0.016	10ZAP/JOH
16 113.467	6204.294	21	3d ² (¹ D)4d	² F	7/2	–	3d ² (¹ D)5p	² F ^o	7/2	0.013	10ZAP/JOH
16 186.575	6176.272	50	3d ² (³ F)5s	e ² F	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	5/2	0.005	10ZAP/JOH
16 222.399	6162.633	18	3d ² (³ F)4d	² D	5/2	–	3d ² (³ F)5p	² D ^o	5/2	0.016	10ZAP/JOH
16 233.517	6158.412	24	3d ² (³ F)5s	e ² F	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² D ^o	3/2	0.011	10ZAP/JOH
16 429.889	6084.806	27 bl	3d(² D)4s4p(³ P ^o)	y ⁴ P ^o	5/2	–	3d ² (³ F)5s	e ⁴ F	7/2	0.011	10ZAP/JOH
16 722.917	5978.185	21	3d ² (³ F)4d	e ² G	9/2	–	3d ² (³ F)5p	² F ^o	7/2	0.014	10ZAP/JOH
16 896.592	5916.737	20	3d ² (³ F)4d	e ² G	7/2	–	3d ² (³ F)5p	² F ^o	5/2	0.014	10ZAP/JOH
17 117.982	5840.215	44 bl	3d ² (³ P)4d	⁴ F	5/2	–	3d ² (³ F)4f	² F ^o	7/2	0.006	10ZAP/JOH
17 176.636	5820.272	28	3d ² (³ P)4d	⁴ F	9/2	–	3d ² (³ P)5p	⁴ D ^o	7/2	0.012	10ZAP/JOH
17 388.512	5749.353	520 bl	3d ² (³ F)4d	² P	1/2	–	3d ² (³ F)5p	⁴ D ^o	1/2	0.006	10ZAP/JOH
17 630.33	5670.495	12	3d ² (³ P)4d	⁴ F	7/2	–	3d ² (³ P)5p	⁴ D ^o	5/2	0.02	10ZAP/JOH
17 732.14	5637.937	13	3d ² (³ P)4d	⁴ F	9/2	–	3d ² (³ F)4f	⁴ D ^o	7/2	0.03	10ZAP/JOH
18 124.69	5515.829	15	3d ² (³ P)4d	⁴ D	7/2	–	3d ² (³ F)4f	⁴ G ^o	7/2	0.02	10ZAP/JOH
18 193.815	5494.873	18 bl	3d ² (³ F)4d	⁴ D	5/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.020	10ZAP/JOH
18 402.90	5432.443	16	3d ² (³ F)4d	⁴ D	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	10ZAP/JOH
18 651.578	5360.013	53	3d ² (¹ D)4d	² G	9/2	–	3d ² (¹ D)5p	² F ^o	7/2	0.007	10ZAP/JOH
18 823.834	5310.964	95	3d ² (³ F)4d	e ² G	9/2	–	3d ² (³ F)5p	² G ^o	9/2	0.007	10ZAP/JOH
18 885.15	5293.721	18	3d ² (³ F)4d	f ² F	7/2	–	3d(² D)4s4p(¹ P ^o)	v ² F ^o	7/2	0.02	10ZAP/JOH
18 940.111	5278.359	81	3d ² (³ F)4d	e ² G	7/2	–	3d ² (³ F)5p	² G ^o	7/2	0.007	10ZAP/JOH
18 943.369	5277.451	38	3d ² (¹ D)4d	² G	7/2	–	3d ² (¹ D)5p	² F ^o	5/2	0.011	10ZAP/JOH
Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
Configuration	Term	J	Configuration	Term	J	Configuration	Term	J			
20 368.549	4909.530	154	3d ² (³ F)4d	⁴ P	5/2	–	3d ² (³ F)5p	⁴ D ^o	7/2	0.008	10ZAP/JOH
20 397.994	4902.443	88	3d ² (³ F)4d	⁴ P	3/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.008	10ZAP/JOH
20 405.344	4900.677	39	3d ² (³ F)4d	⁴ P	1/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.012	10ZAP/JOH

TABLE 6. Spectral lines of Ti II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm ⁻¹)	Intensity and comment	Classification						Uncertainty of observed wavelength (Å)	Source of line	
			Configuration	Term	J	Configuration	Term	J			
20 690.988	4833.022	36	3d ² (³ F)4d	⁴ P	1/2	–	3d ² (³ F)5p	⁴ D ^o	1/2	0.013	10ZAP/JOH
20 881.395	4788.952	40	3d ² (³ F)4d	⁴ P	3/2	–	3d ² (³ F)5p	⁴ D ^o	3/2	0.013	10ZAP/JOH
21 042.651	4752.253	29	3d ² (³ F)4d	⁴ P	5/2	–	3d ² (³ F)5p	⁴ D ^o	5/2	0.013	10ZAP/JOH
21 961.794	4553.362	86	3d ² (³ F)4d	e ² H	9/2	–	3d ² (³ F)5p	² G ^o	7/2	0.010	10ZAP/JOH
21 982.525	4549.068	85	3d ² (³ F)4d	e ² H	11/2	–	3d ² (³ F)5p	² G ^o	9/2	0.010	10ZAP/JOH

The data of Zapadlik *et al.* [10ZAP/JOH] have not yet been published and were kindly provided by U. Litzén. This work has been available by private communication to others [01PIC/THO], [03MOR] for some time. Pickering *et al.* [01PIC/THO] list the wavelengths from this work in their oscillator strength paper for all lines observed by both groups.

The intensity reported for the line from Kiess [28KIE] is taken from King [24KIN]. Lines from Pickering *et al.* [01PIC/THO] and Allende Prieto and García López [98ALL/GAR] do not provide intensities, so intensities from Huldt *et al.* [82HUL/JOH] were used when available. Aldenius [09ALD] also did not provide intensities, and values from Zapadlik *et al.* [10ZAP/JOH] were used for their lines when available.

The priority in our choice of lines which appear in more than one reference is in general specified as follows:

[09ALD] over [10ZAP/JOH] over [01PIC/THO] over [98ALL/GAR] over [28KIE] over {[82HUL/JOH], [82HUL/JOH2]}.

Lines from two other references [91GIA/MON], [64GIU/THE] were superseded by those from the above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Ti II levels. Only classifiable lines are included in our compilation. Other lines are listed in the references but are not included since we cannot be sure that they are from Ti II when they do not fit the known levels.

Transition probability calculations using the Cowan codes [81COW] were used to help resolve choices between multiple possible classifications of lines.

Intensities have been taken from the stated sources and therefore are not on a common scale.

The intensity codes given in the Ti II line table are taken from the specified sources. Their meaning is stated below:

Code	Definition
bl	Blended
*	Multiply classified line (two or more classifications of this line share the same intensity)

Once the classified line list was complete, a least squares adjustment of the energy levels was made using a modified version of the level optimization program ELCALC [69RAD]. This is an iterative procedure that minimizes the differences between the observed wave numbers and those predicted from the optimized level values. In the first itera-

tion, the lines are weighted according to the inverse square of the uncertainties of their wave numbers. For succeeding iterations, the weight assigned to each line in determining a given level is recalculated based on both the uncertainty of the wave number and the uncertainty determined for the combining level of opposite parity in the previous iteration. None of the lines with Ritz wavelength values from Huldt *et al.* [82HUL/JOH2] were included in the fit. Also, all lines indicated as blended were removed as were the 1999.905 Å line and one classification of the 3272.076 Å line.

The values of g_j included in the level table were compiled by Sugar and Corliss [85SUG/COR]. The values of the leading percentages included in the level table were those calculated by Huldt *et al.* [82HUL/JOH].

The ionization energy was obtained by Huldt *et al.* [82HUL/JOH] from the three members of the 3d²(³F)*ns* series with extrapolated corrections taken from Johansson [78JOH].

Collection of lines and levels was completed in March 2010.

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