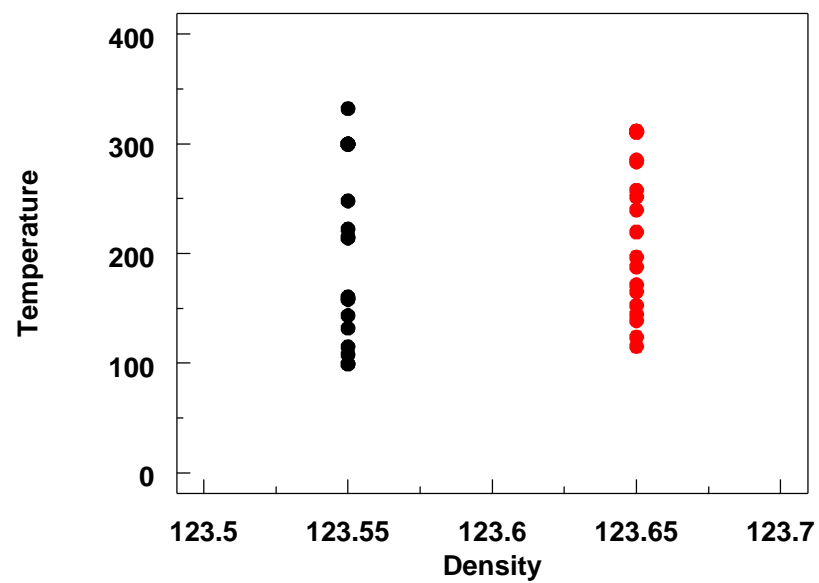
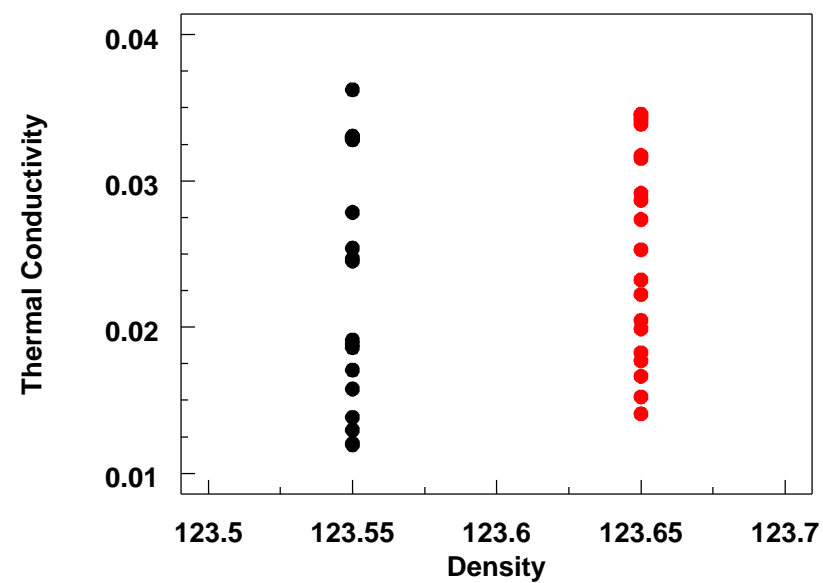
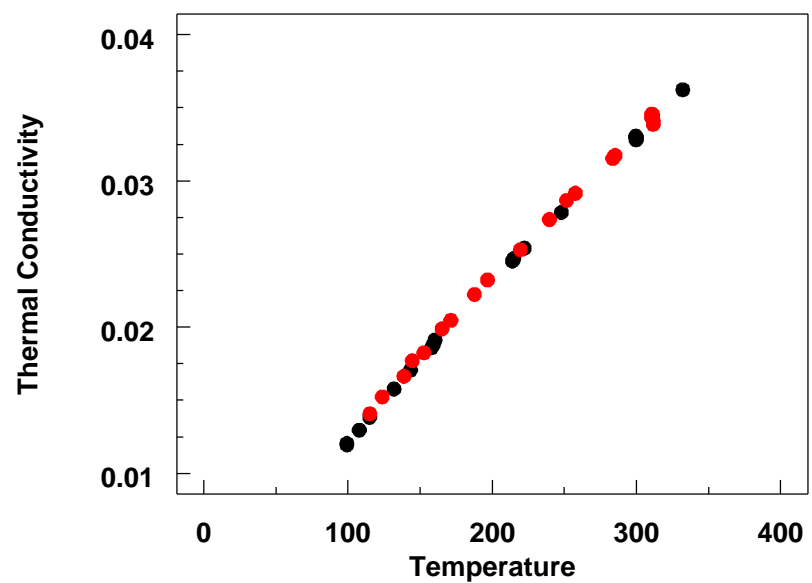


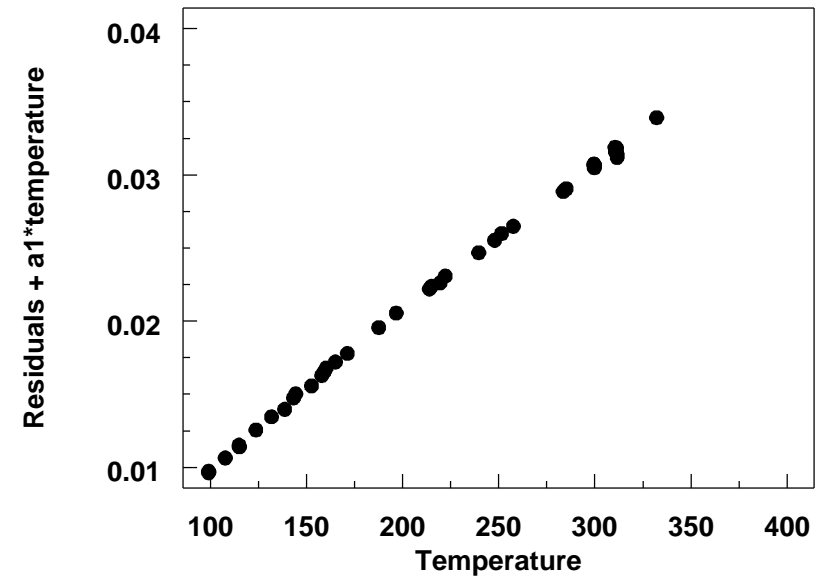
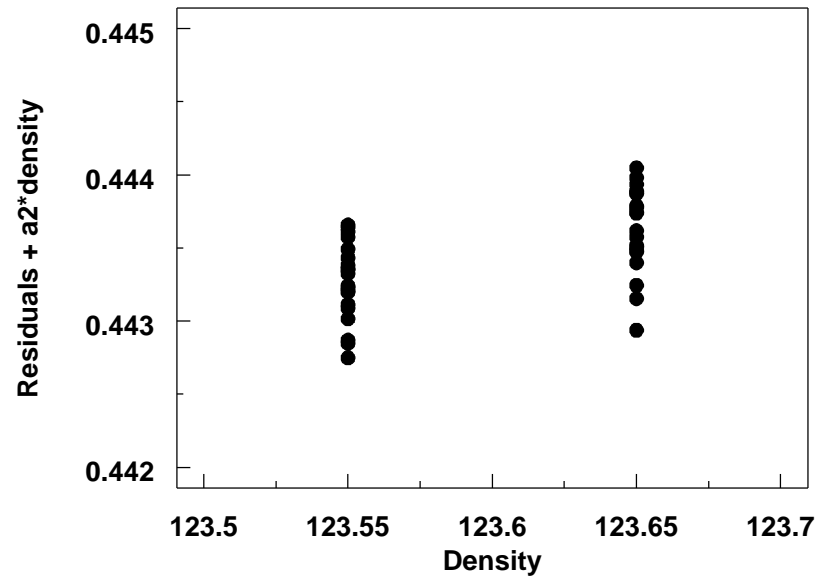
Dataset 1970 Boulder: Raw Data



● - Density < 123.6

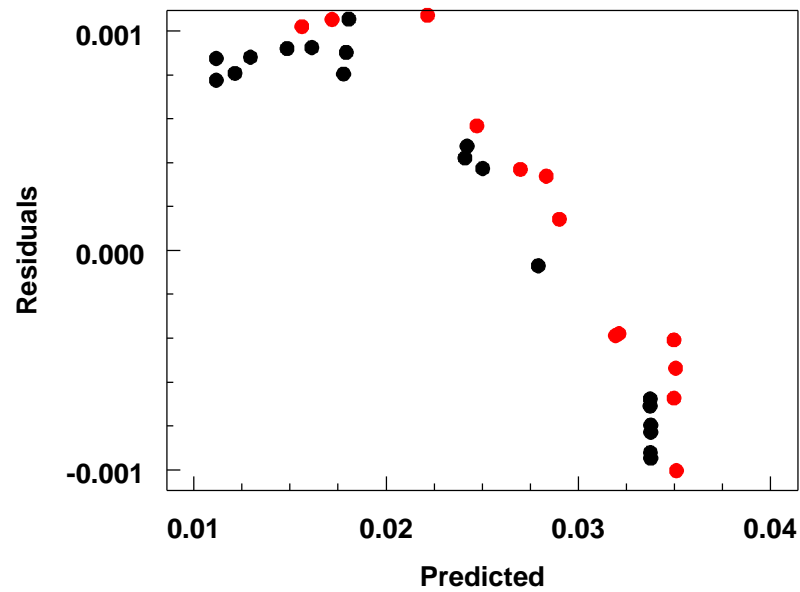
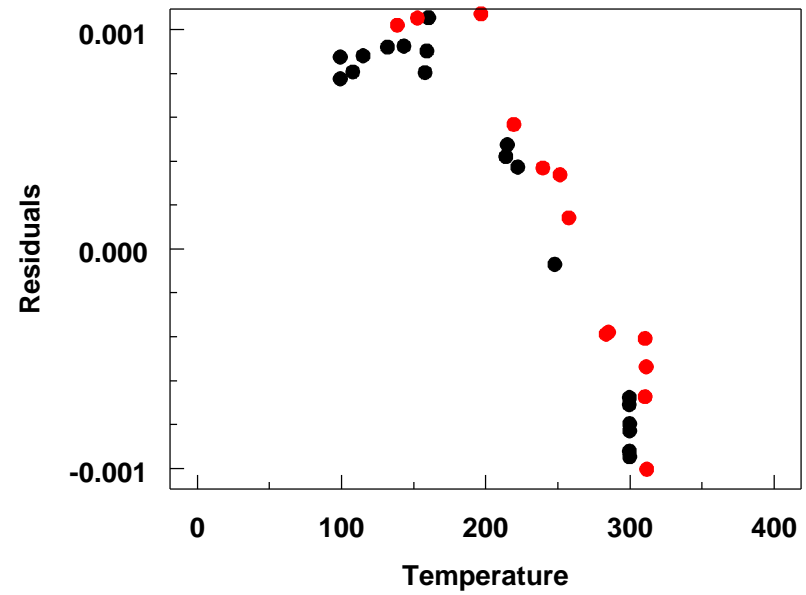
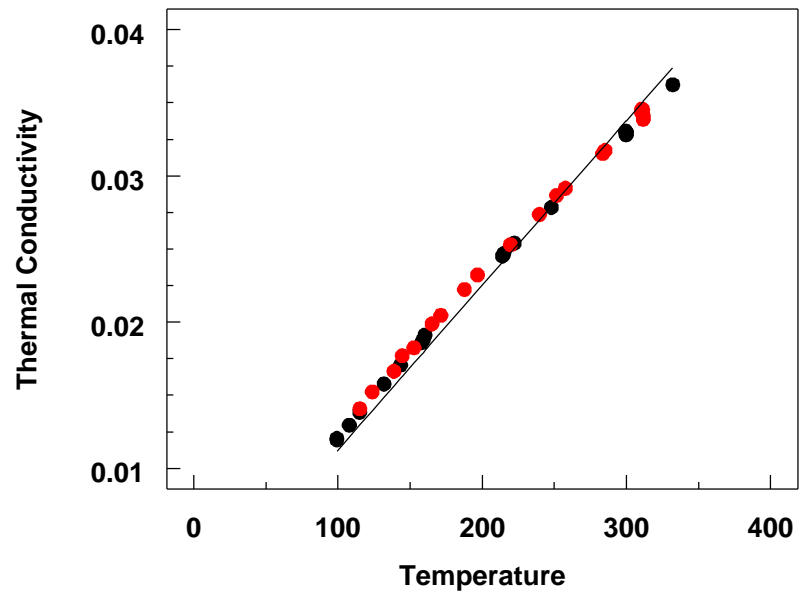
● - Density > 123.6

Dataset 1970 Boulder: Partial Residual Plots



1970 Boulder Dataset Model 1:  $k = 0.0001126166 \cdot t$

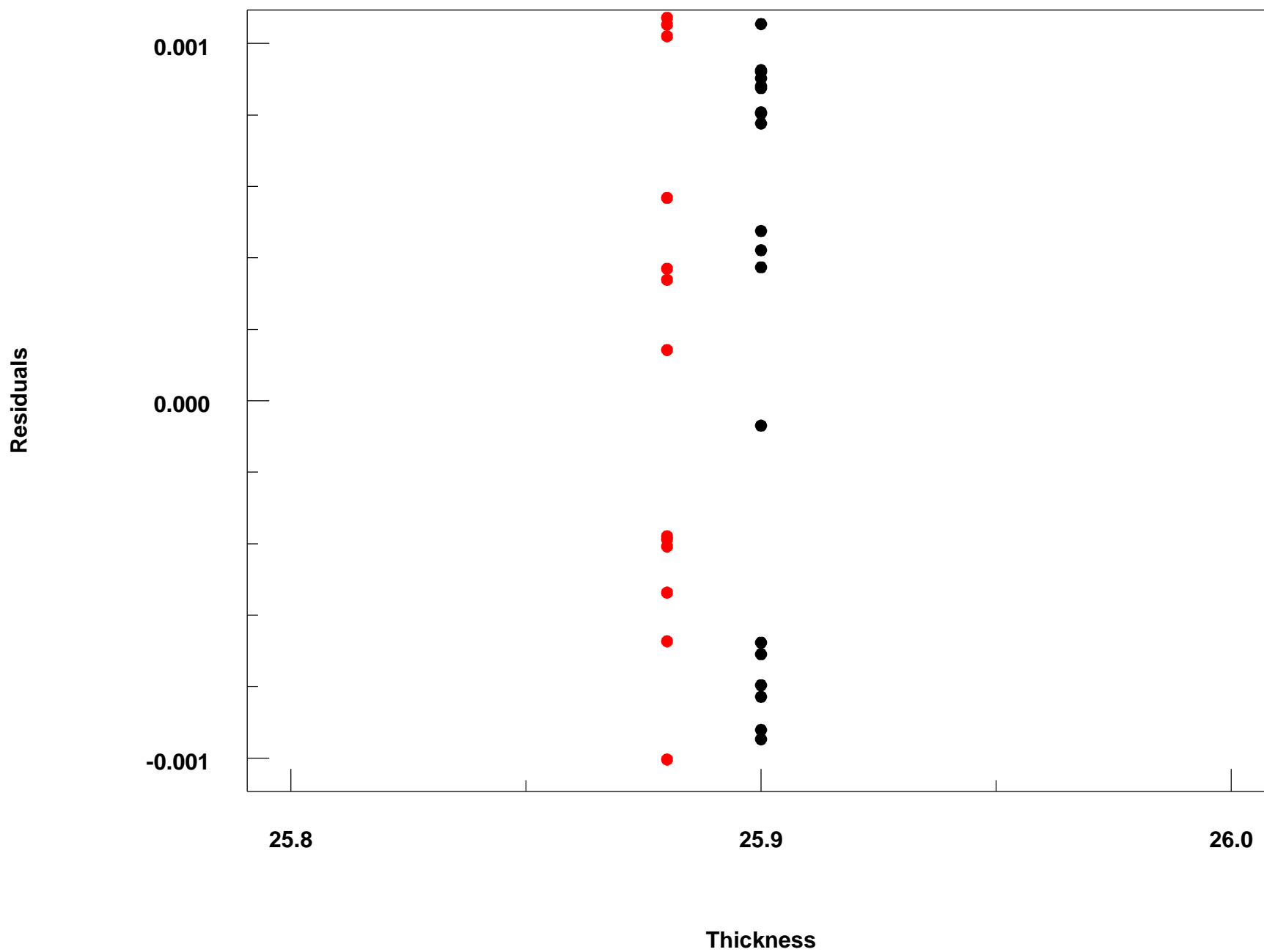
RESSD: 0.000874064, BIC: -564.5472443



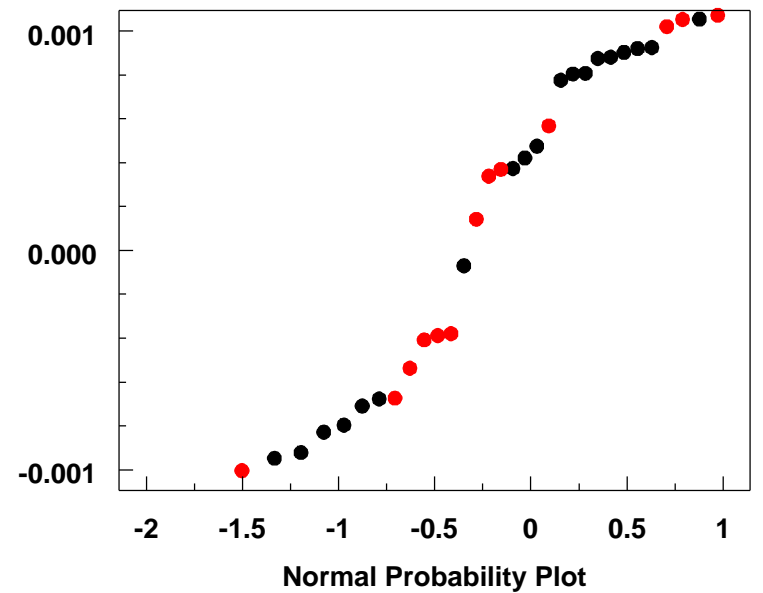
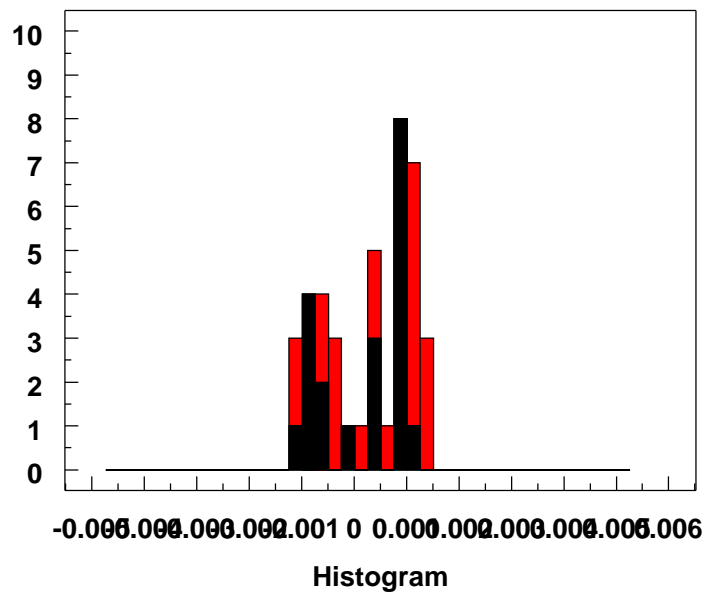
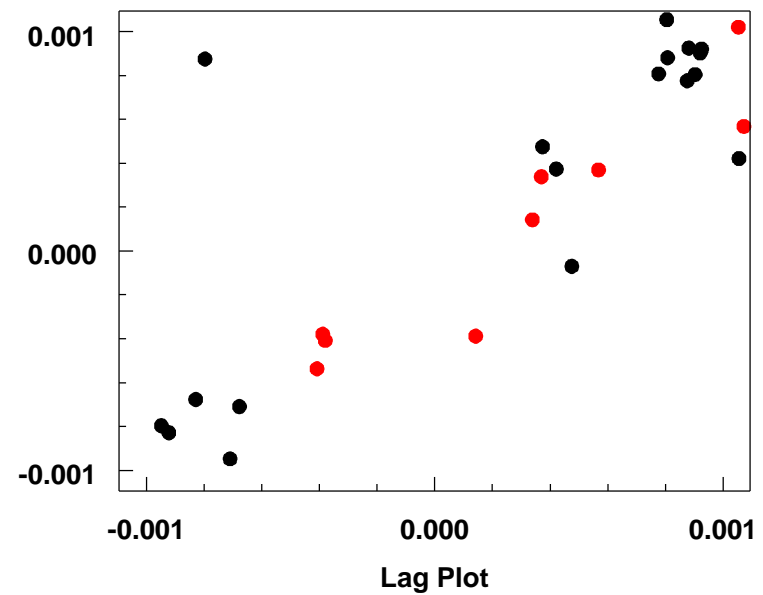
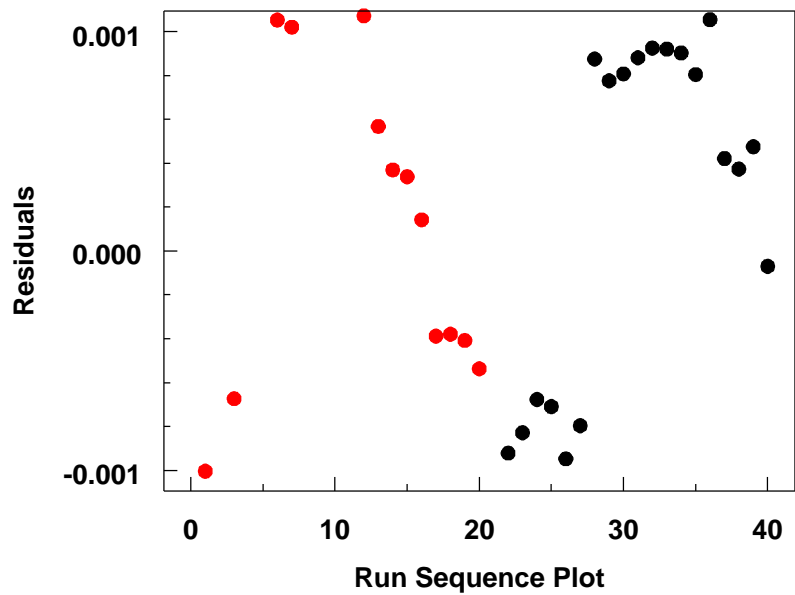
● - Density < 123.6

● - Density > 123.6

1970 Boulder Dataset Model 1: Nuisance Factors Versus Residuals



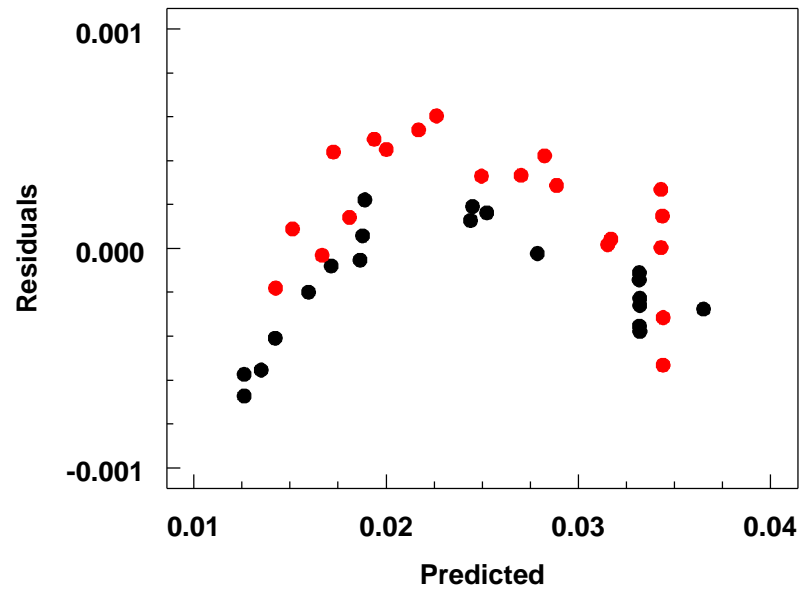
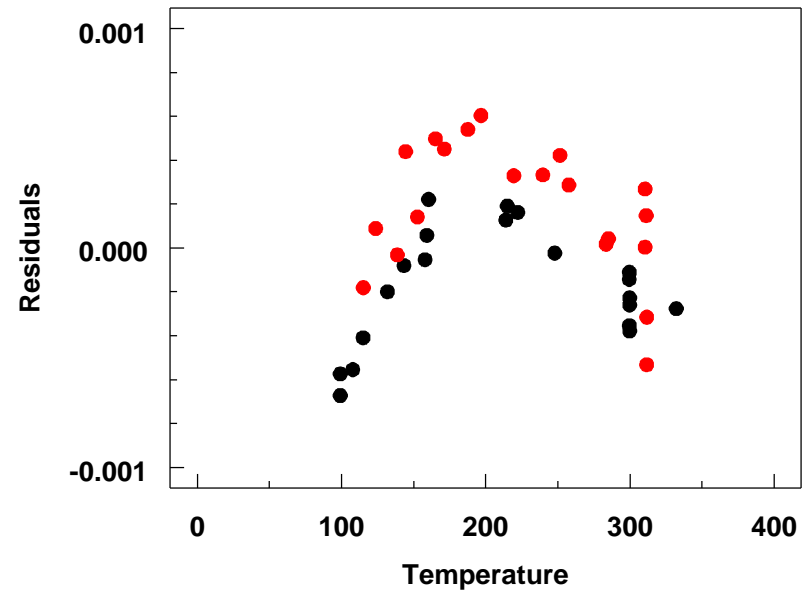
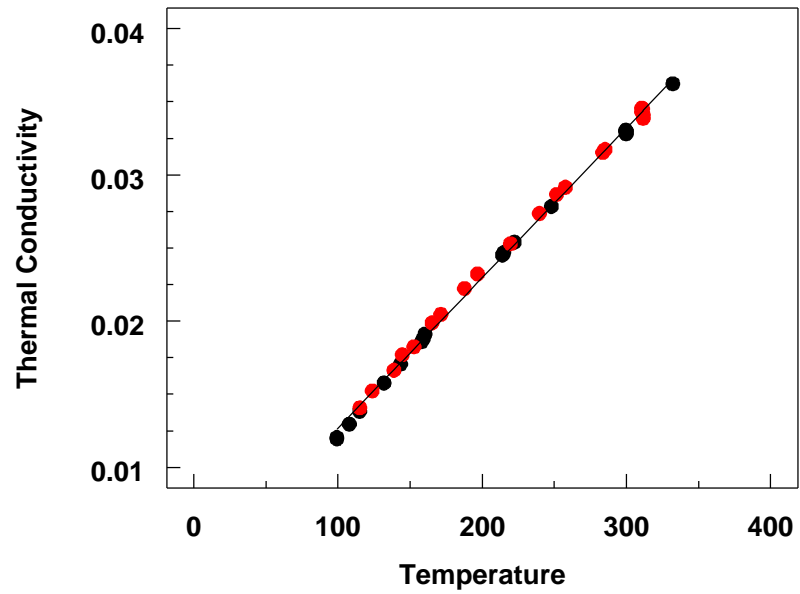
1970 Boulder Dataset Model 1: 4-Plot of the Residuals



PPCC = 0.9548

1970 Boulder Dataset Model 2:  $k = 0.002446662 + 0.0001025565 \cdot t$

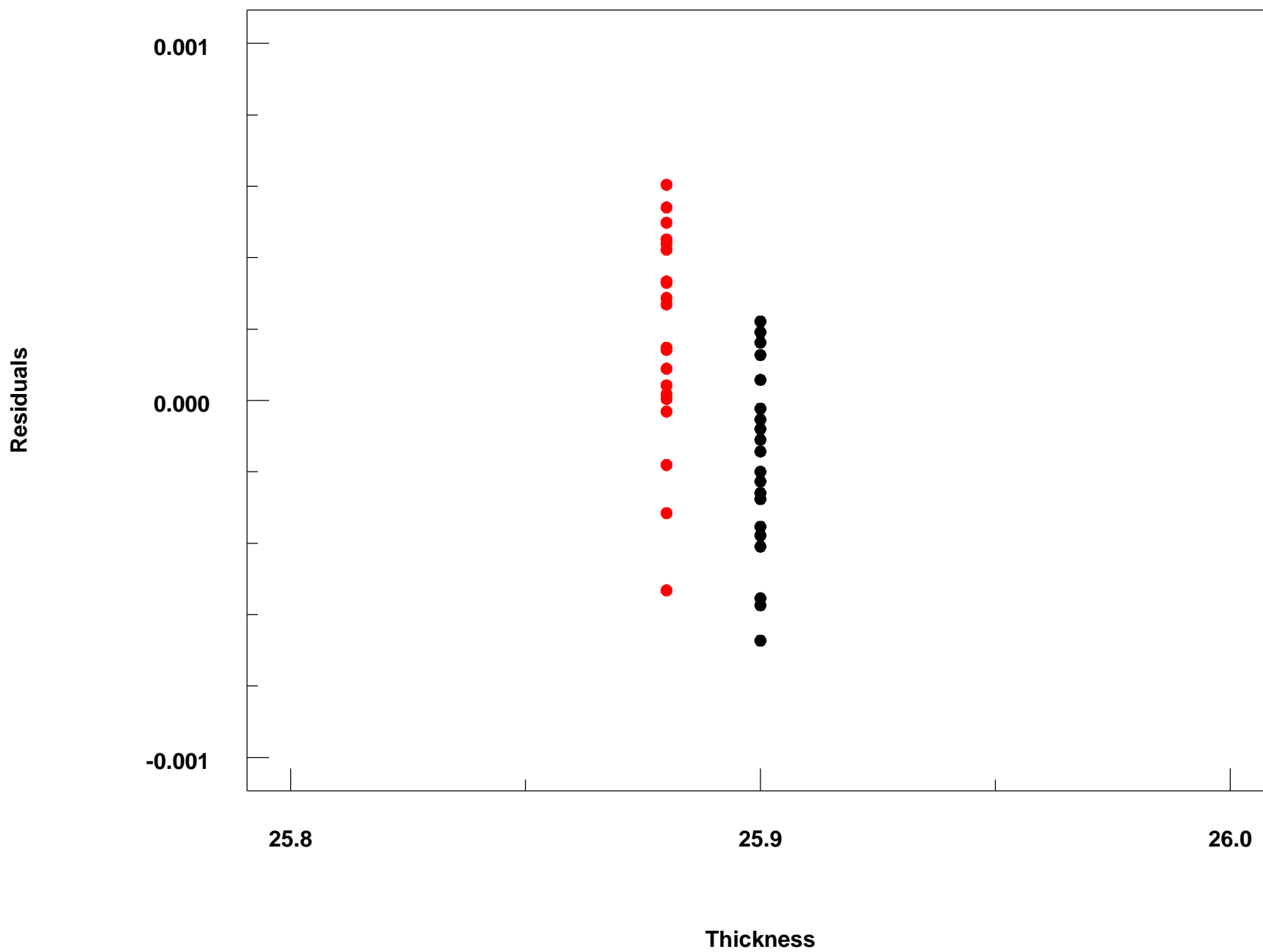
RESSD: 0.0003346993, BIC: -634.8562198



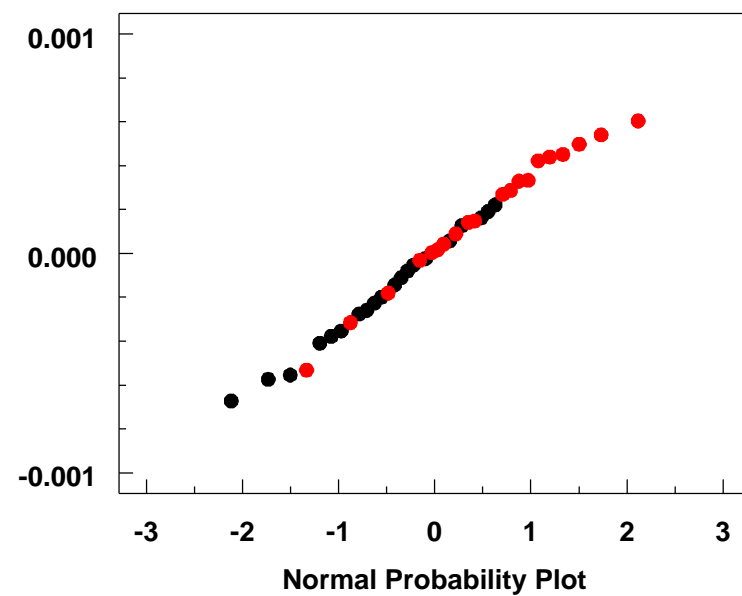
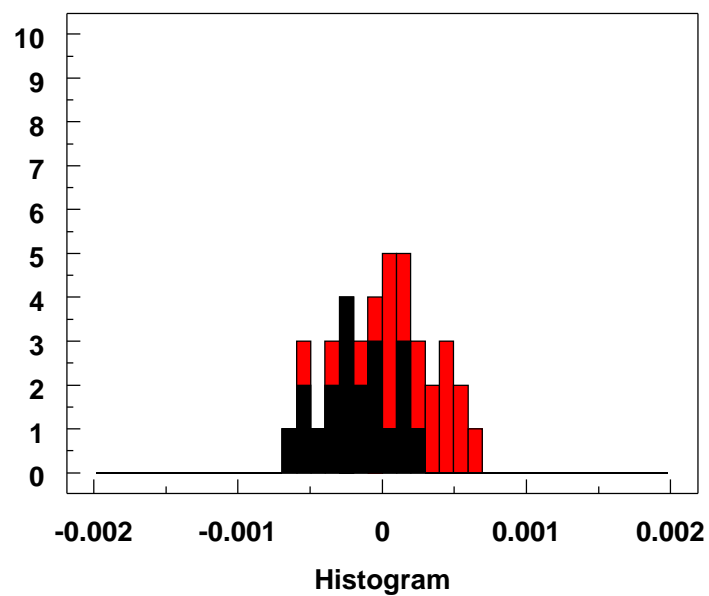
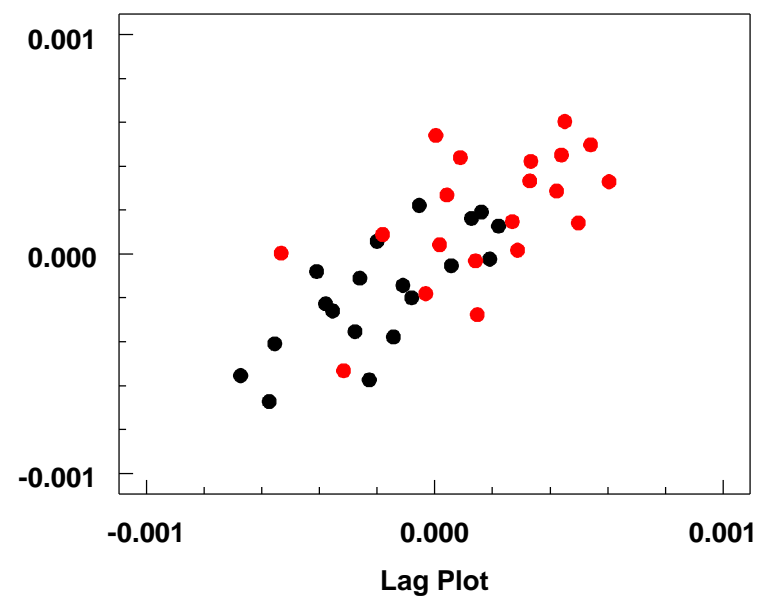
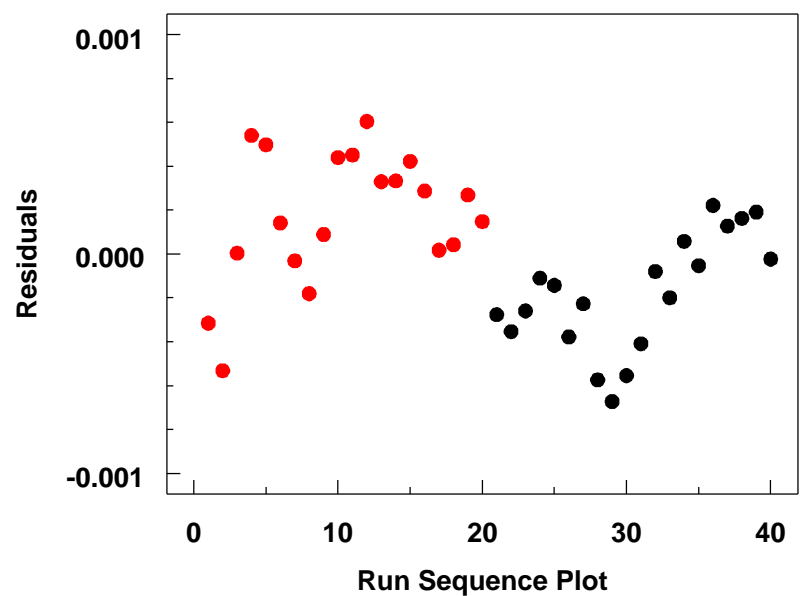
● - Density < 123.6

● - Density > 123.6

1970 Boulder Dataset Model 2: Nuisance Factors Versus Residuals



### 1970 Boulder Dataset Model 2: 4-Plot of the Residuals

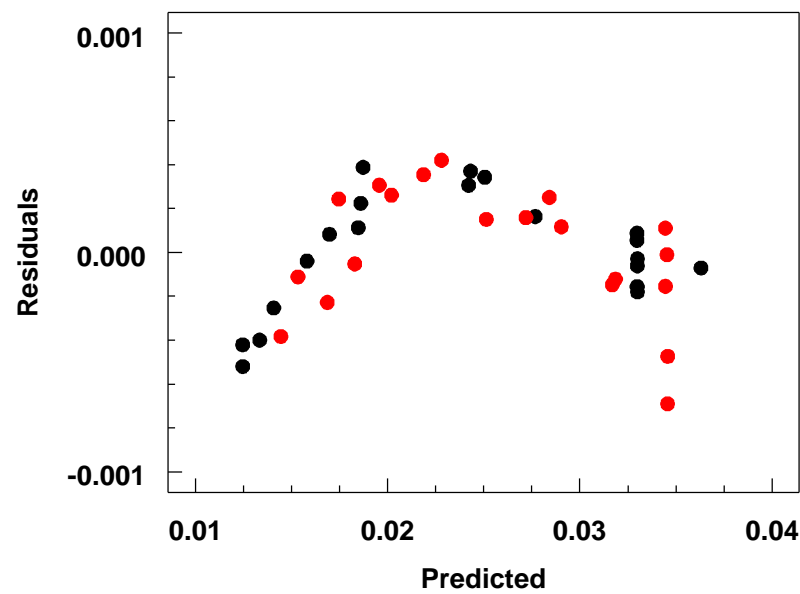
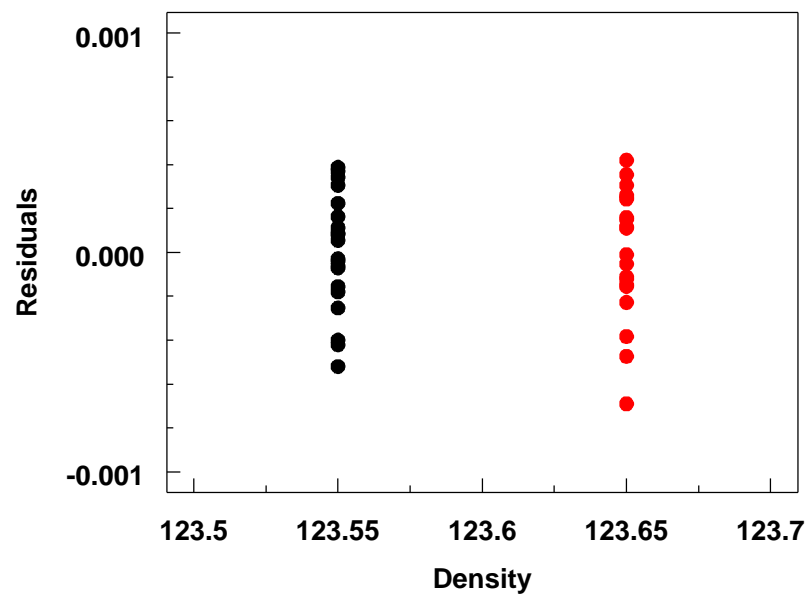
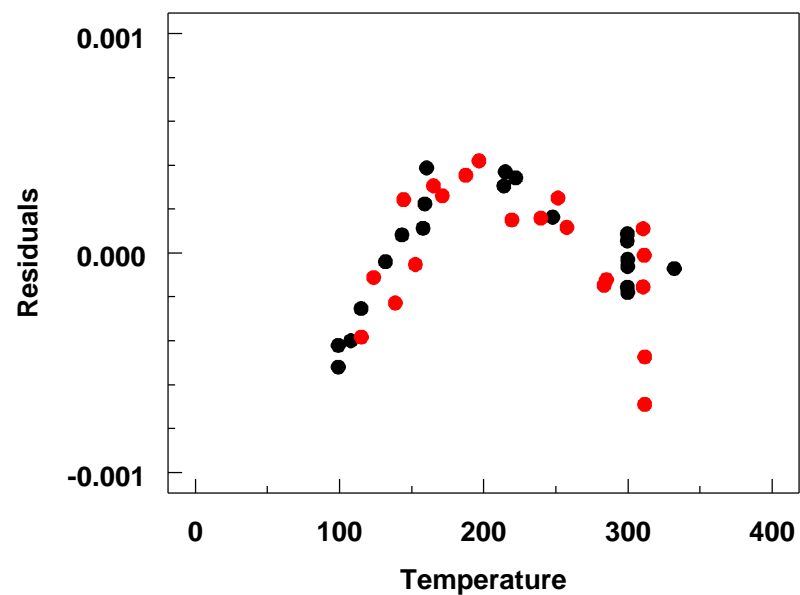
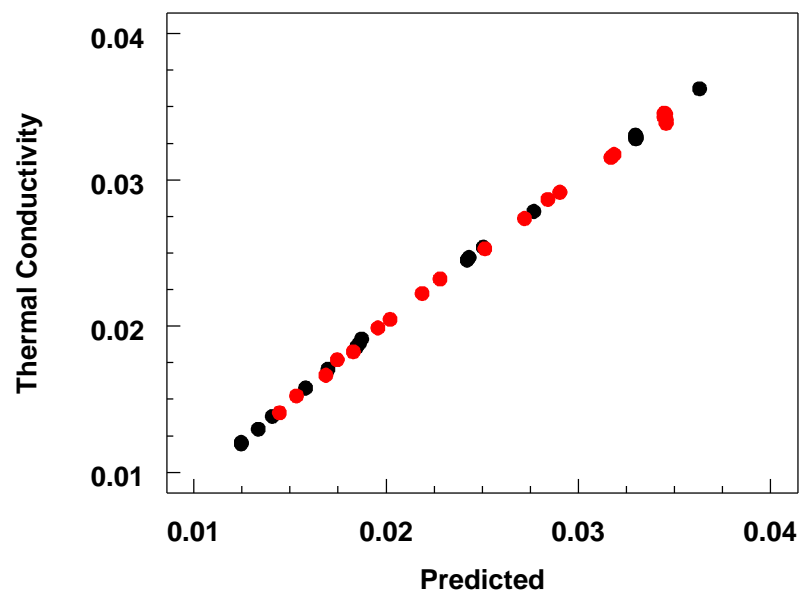


PPCC = 0.9955



1970 Boulder Dataset Model 3:  $k = -0.440952517 + 0.0001023299 \cdot t + 0.0035877704 \cdot d$

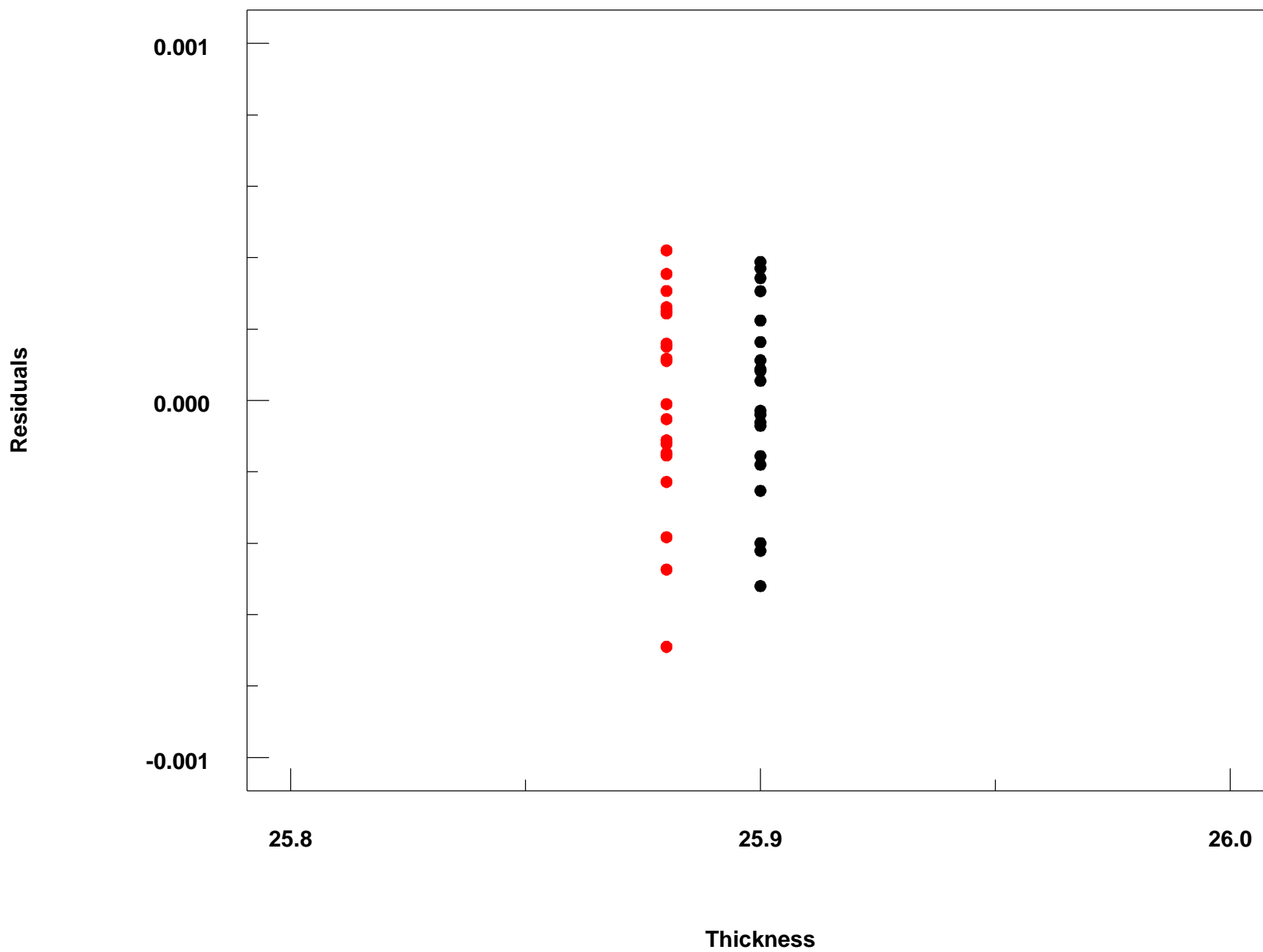
RESSD: 0.0002838571, BIC: -645.4149857



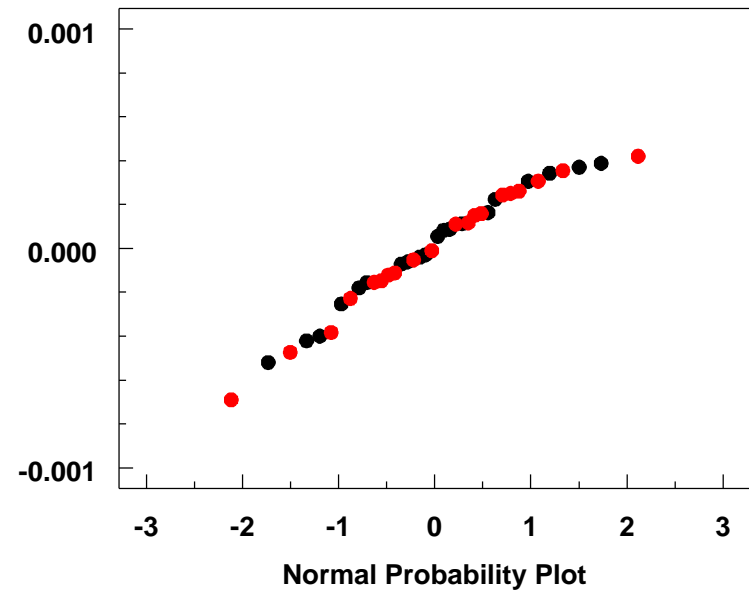
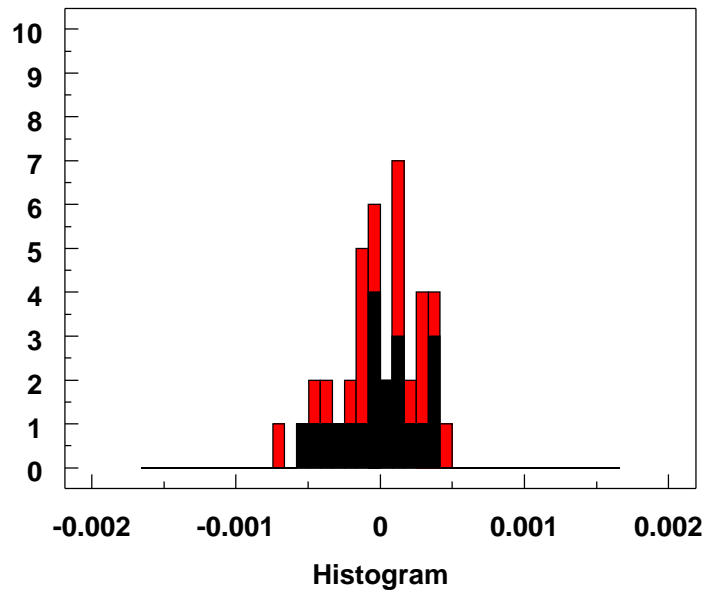
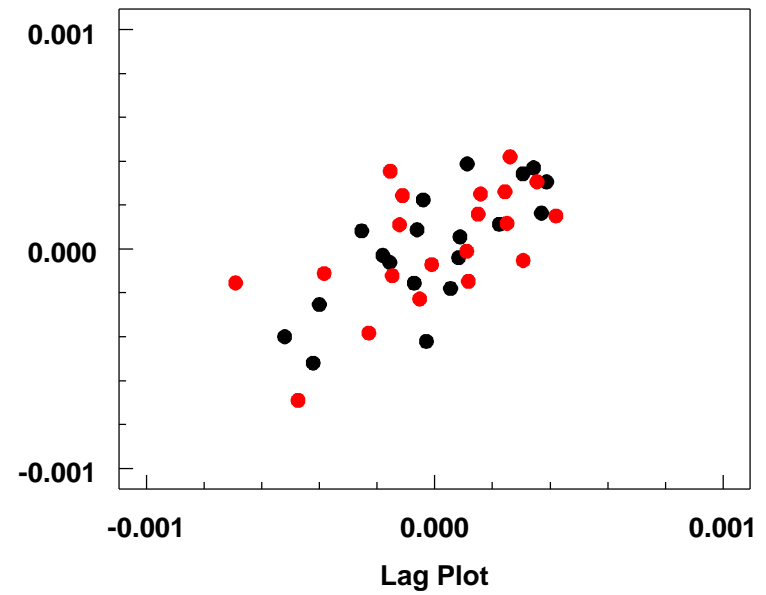
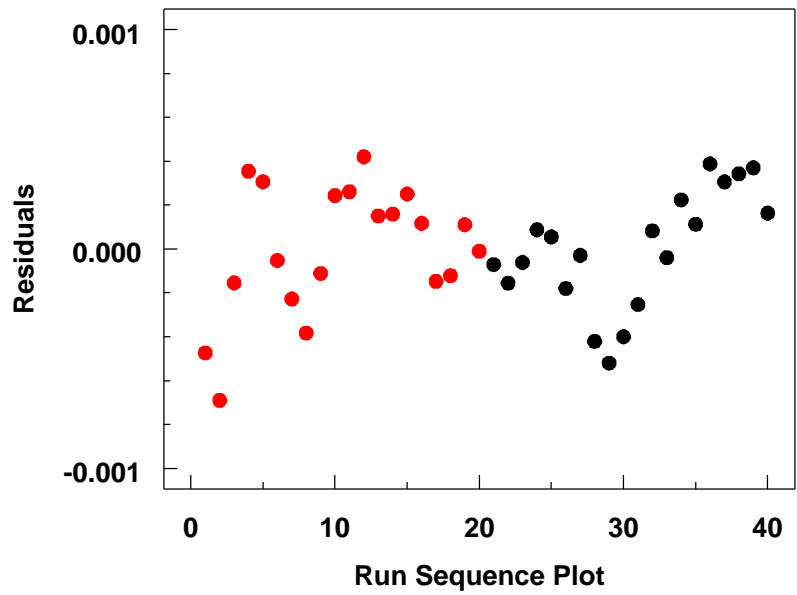
● - Density < 123.6

● - Density > 123.6

1970 Boulder Dataset Model 3: Nuisance Factors Versus Residuals



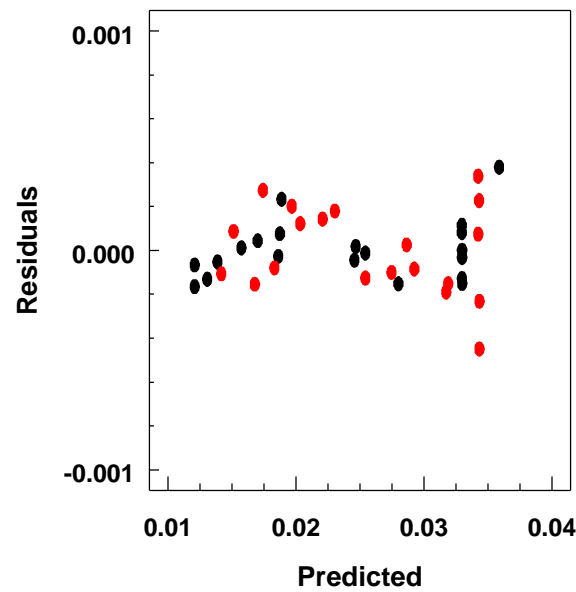
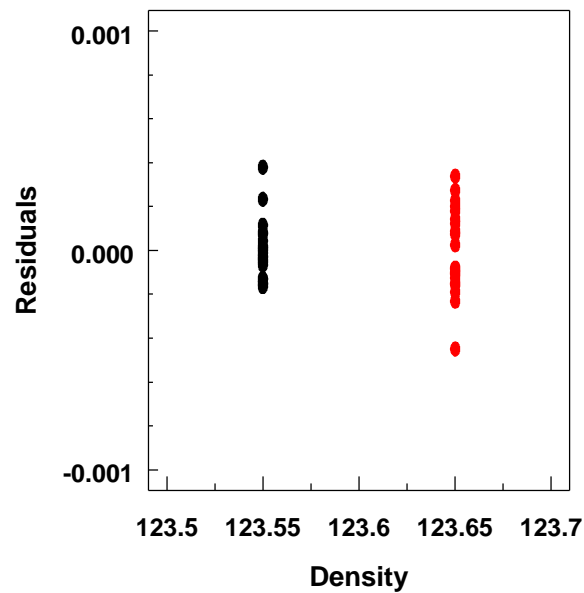
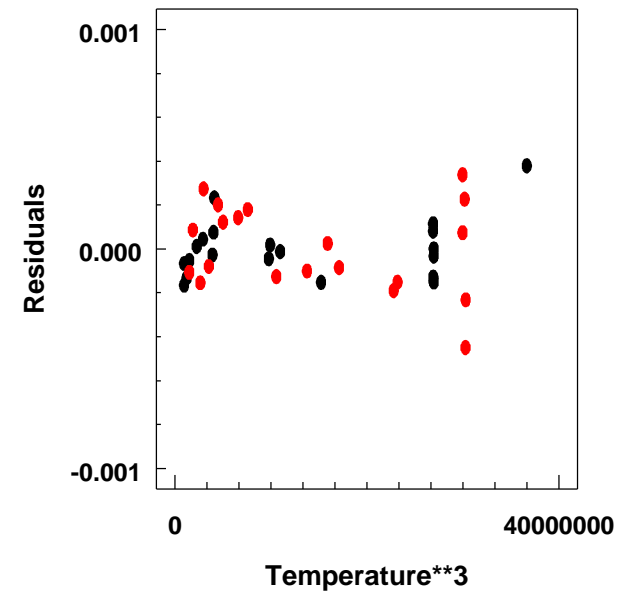
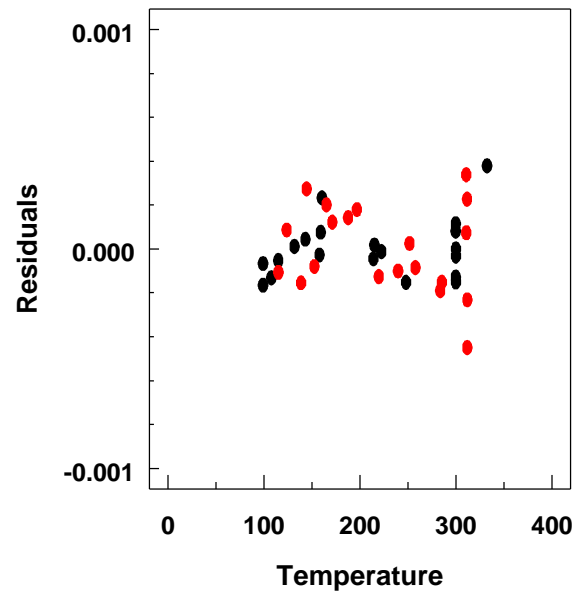
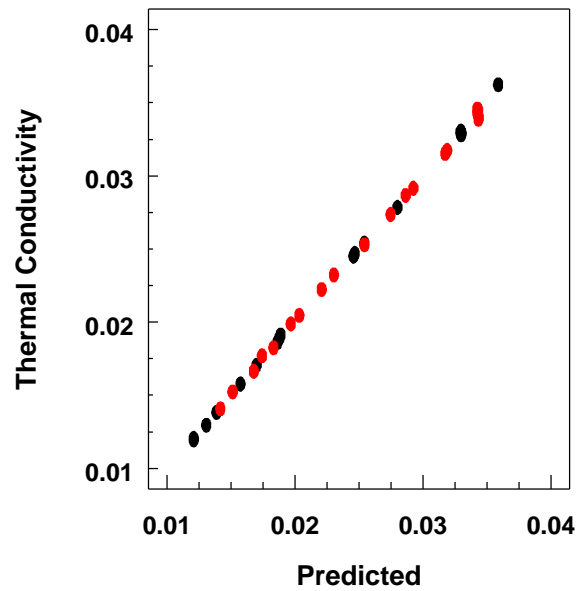
### 1970 Boulder Dataset Model 3: 4-Plot of the Residuals



PPCC = 0.984

1970 Boulder Dataset Model 4:  $k = 0.02472865 + 0.0001025565 \cdot t + 0.0035877704 \cdot d + 0 \cdot t^3$

RESSD: 0.0001745045, BIC: -681.7437105

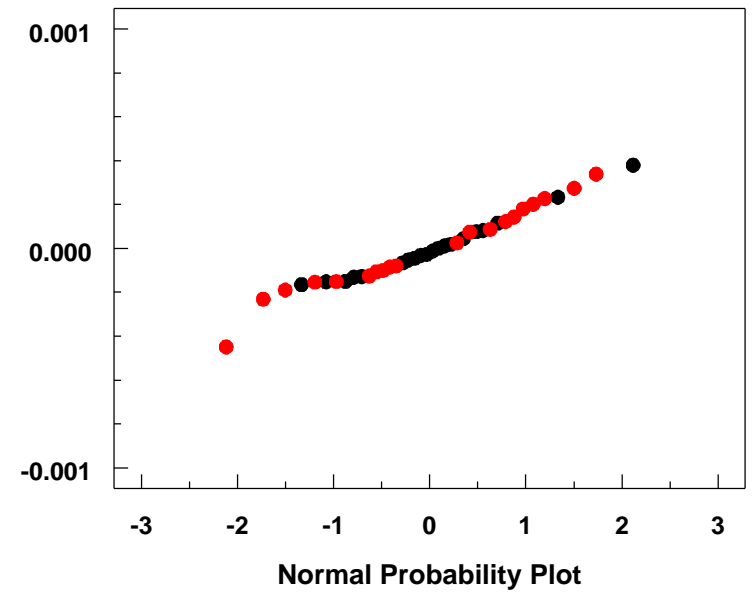
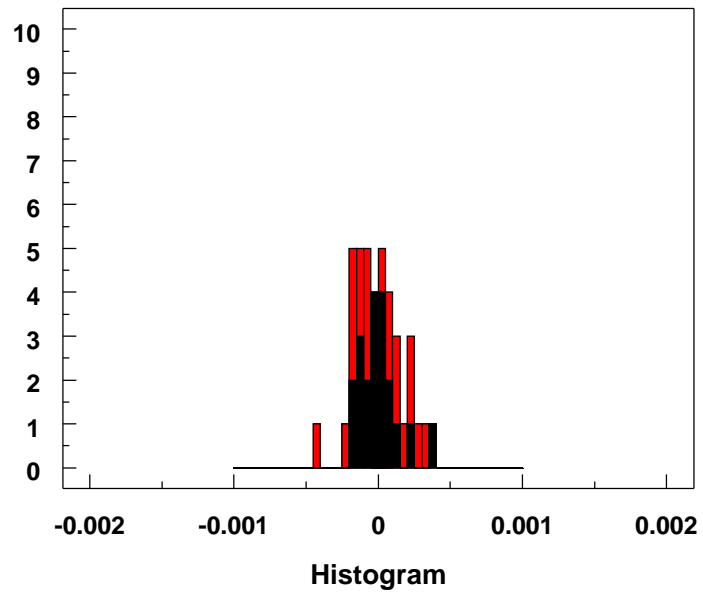
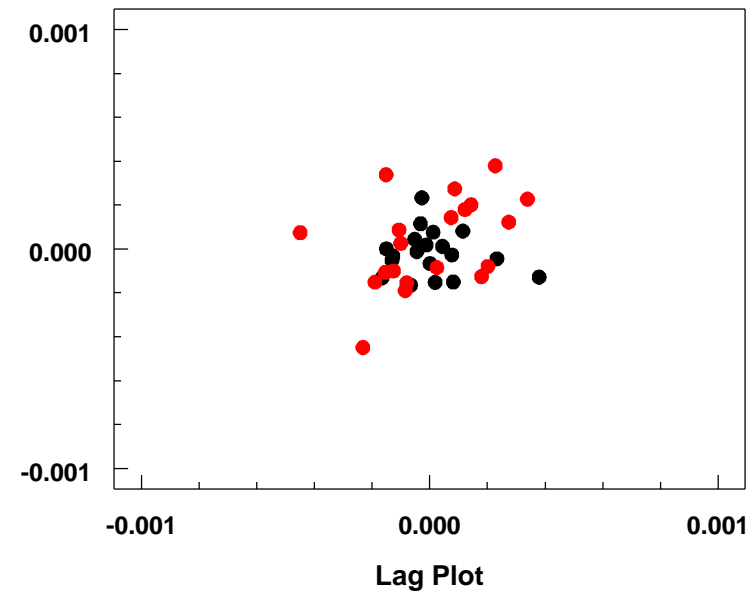
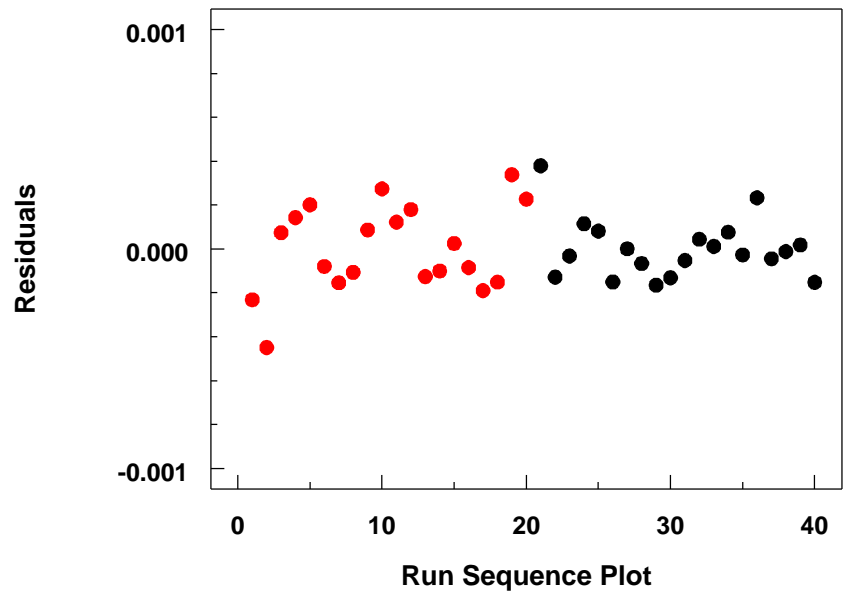


● - Density < 123.6

● - Density > 123.6

A scatter plot showing the relationship between Thickness and a response variable. The x-axis is labeled 'Thickness' and ranges from 25.8 to 26.0. The y-axis ranges from -0.001 to 0.001. Two groups of data points are shown: red points at Thickness ≈ 25.87 and black points at Thickness ≈ 25.90. The red points are more spread out vertically than the black points.

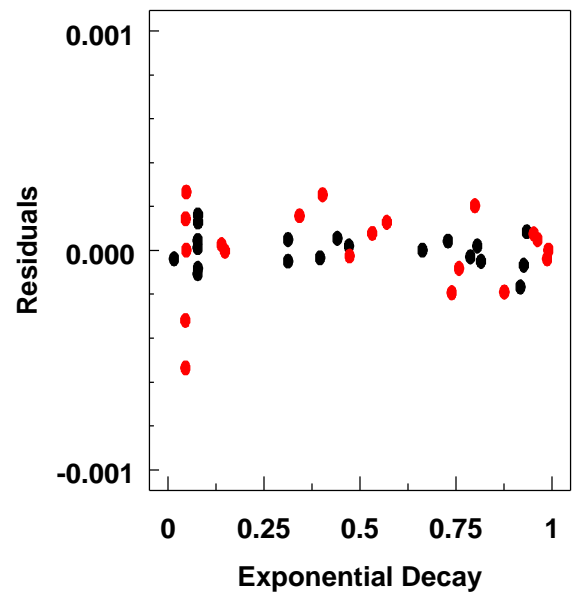
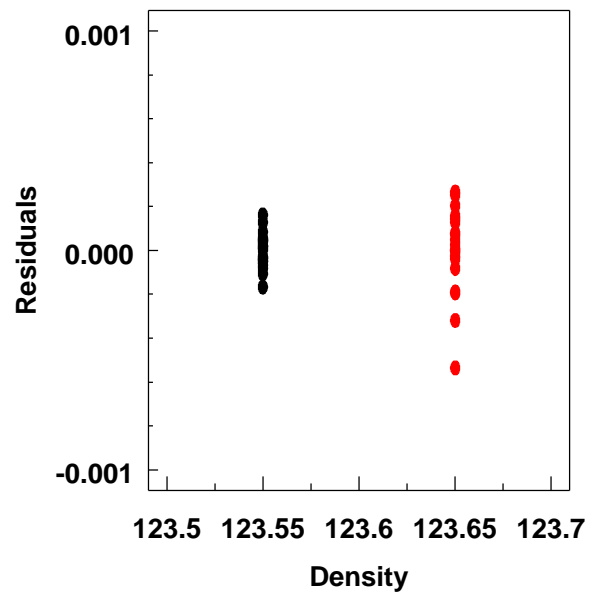
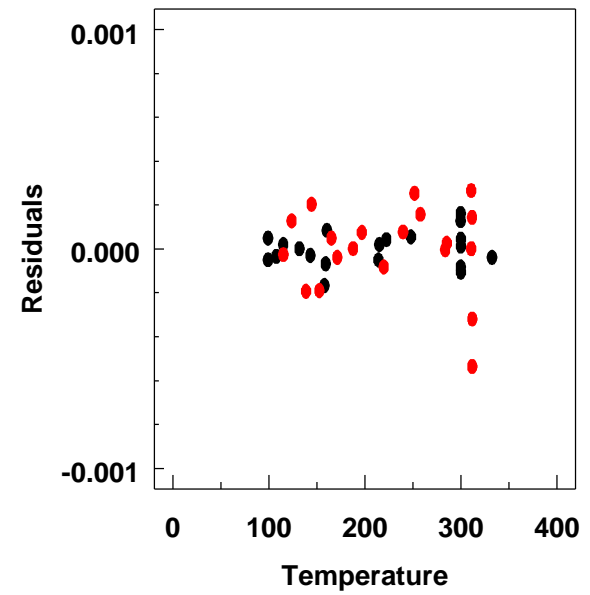
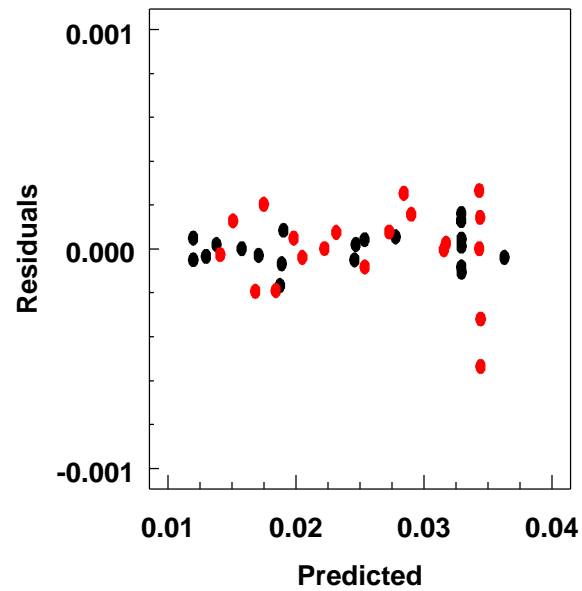
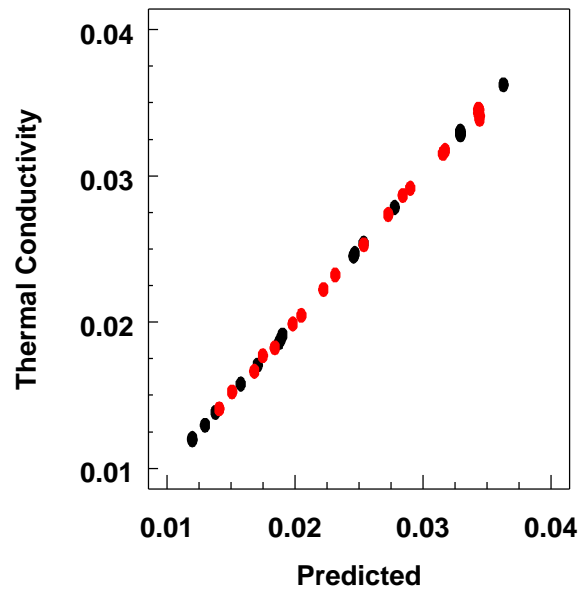
# 1970 Boulder Dataset Model 4: 4-Plot of the Residuals



PPCC = 0.9847

1970 Boulder Dataset Model 5:  $k = -0.3348078 + 0.0001054142*t + 0.0027199694*d + 0.0009426155*e1$

RESSD: 0.0001531623, BIC: -692.1798961



● - Density < 123.6

● - Density > 123.6

A scatter plot showing the relationship between Thickness (x-axis) and a variable ranging from -0.001 to 0.001 (y-axis). The x-axis is labeled 'Thickness' and has major ticks at 25.8, 25.9, and 26.0. The y-axis has major ticks at -0.001, 0.000, and 0.001. The data points are clustered at two thickness values: approximately 25.87 (red dots) and 25.90 (black dots). The red dots show a wider spread of values than the black dots.

Thickness	Value
25.87	-0.0005
25.87	-0.0003
25.87	-0.0001
25.87	0.0000
25.87	0.0001
25.87	0.0002
25.87	0.0003
25.87	0.0004
25.87	0.0005
25.90	-0.0001
25.90	-0.00005
25.90	0.0000
25.90	0.00005
25.90	0.0001
25.90	0.00015

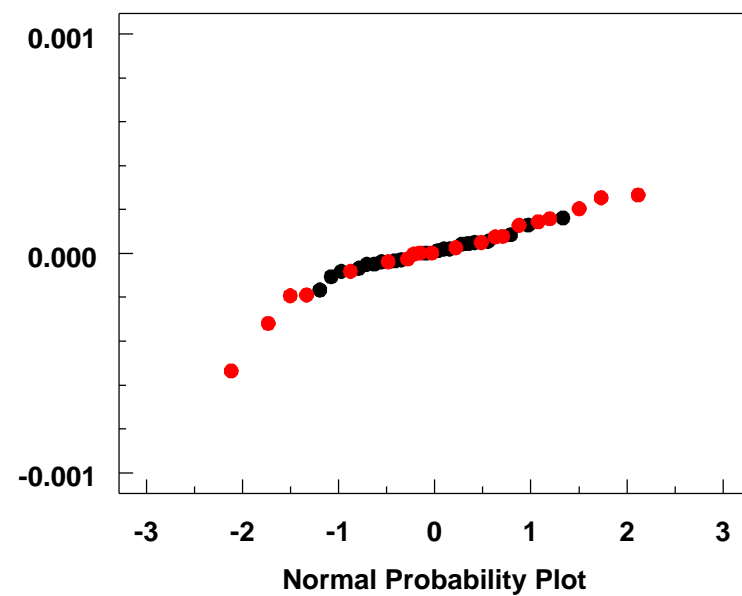
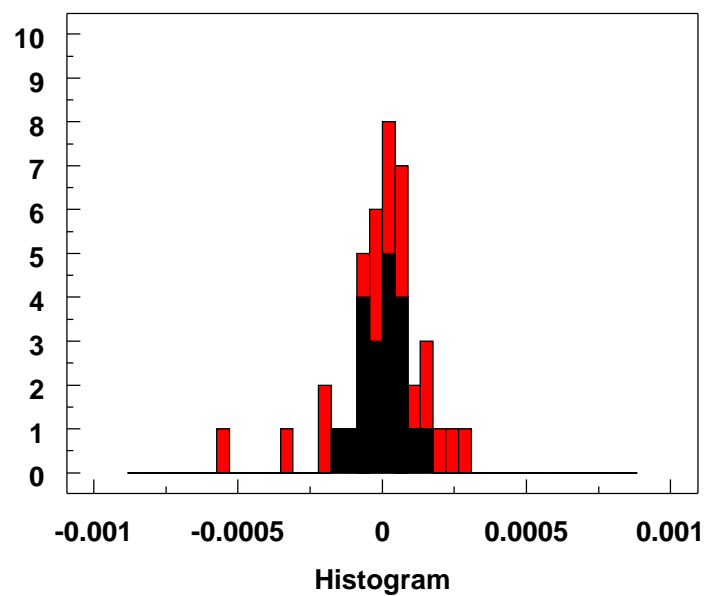
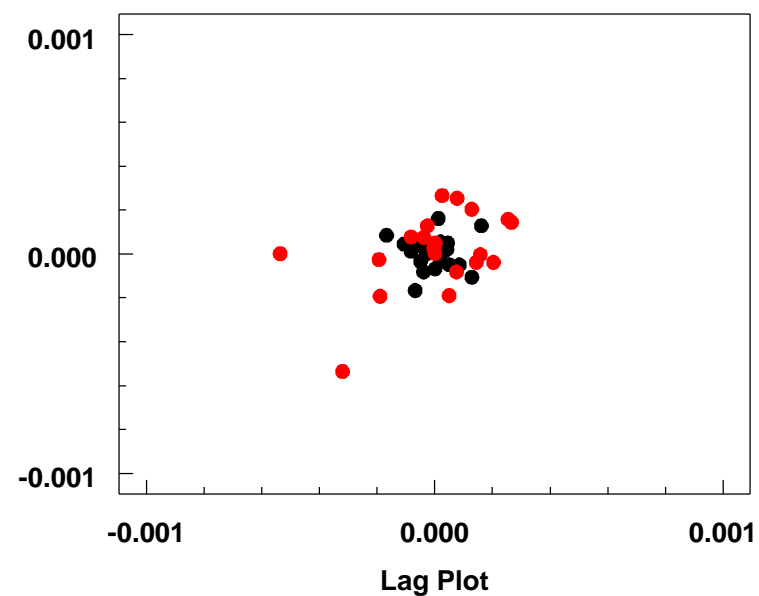
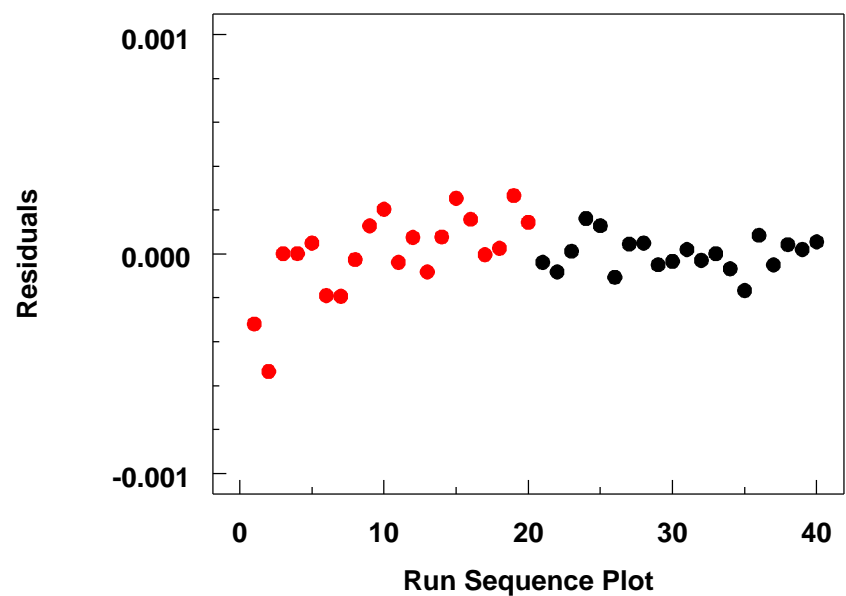
**0.000**

**-0.001**

## 26.0

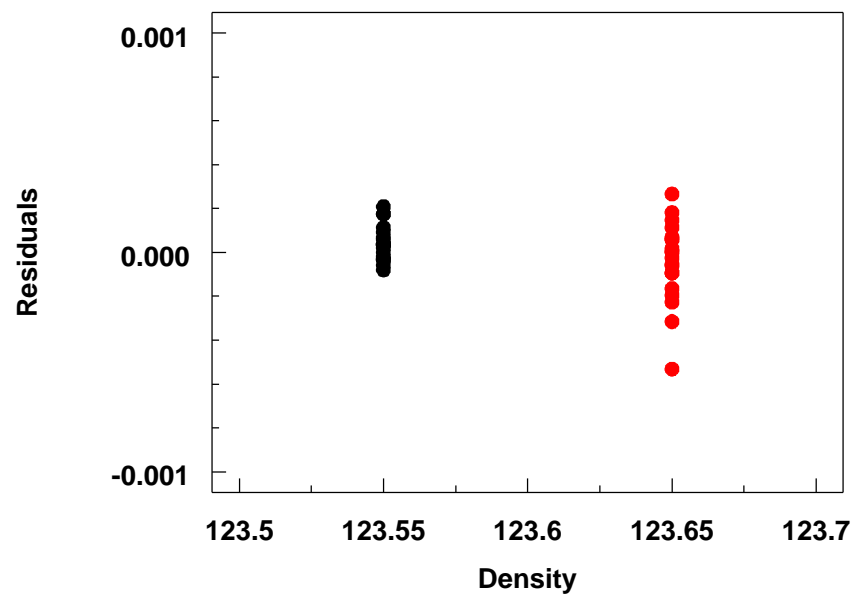
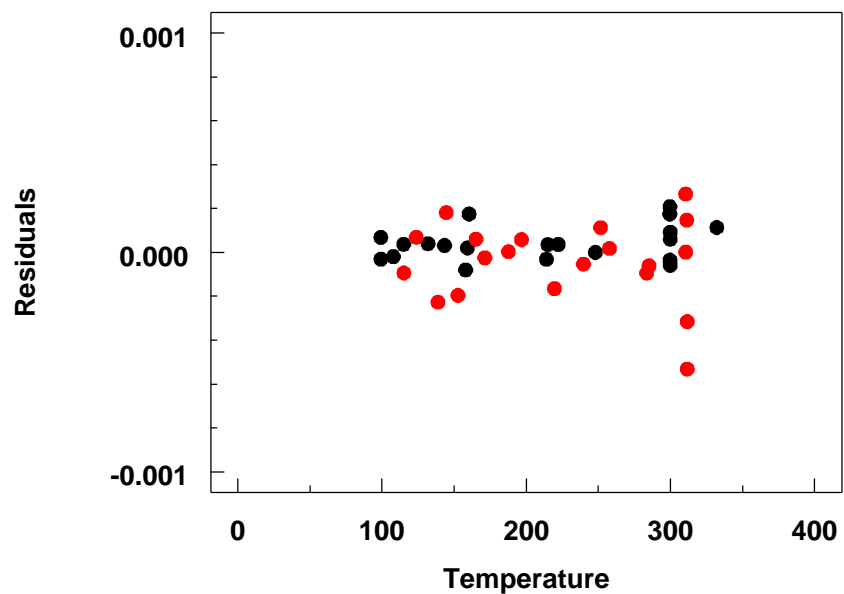
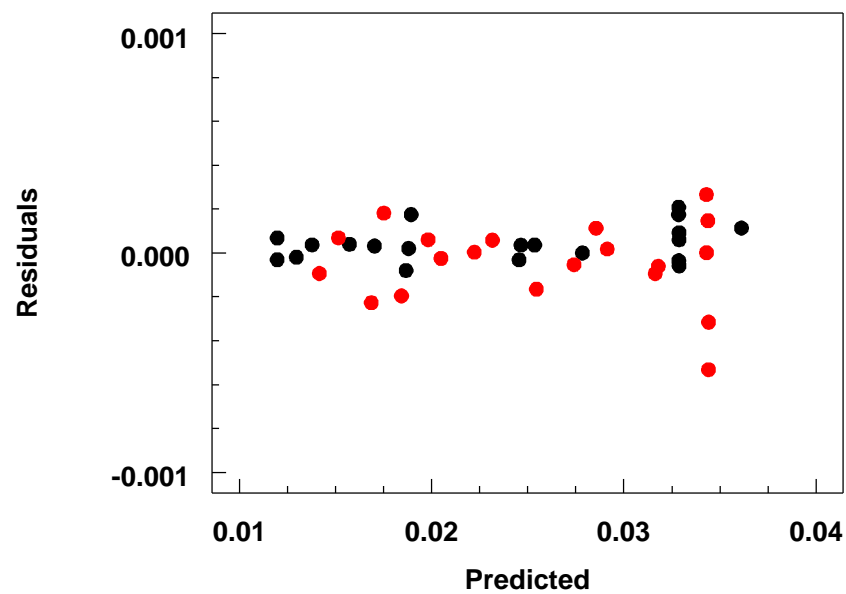
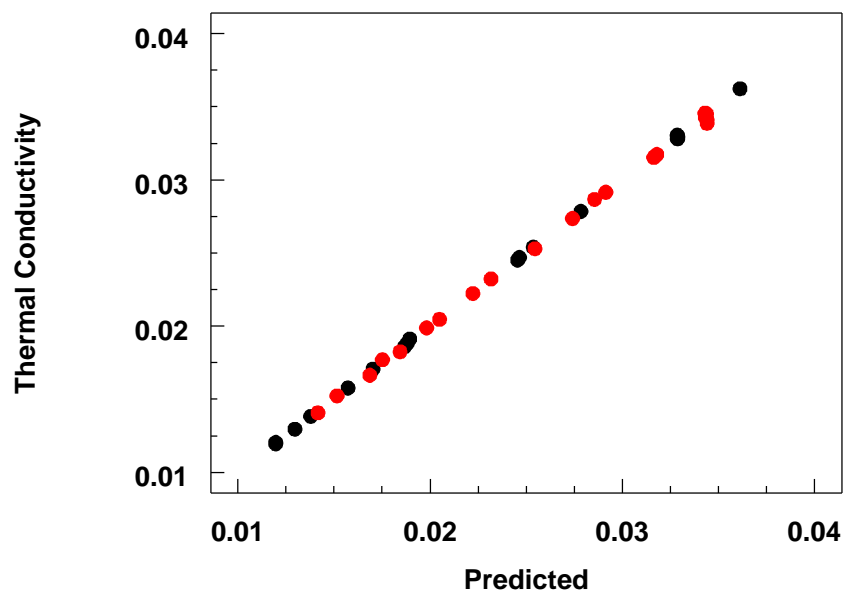


### 1970 Boulder Dataset Model 5: 4-Plot of the Residuals



PPCC = 0.9485

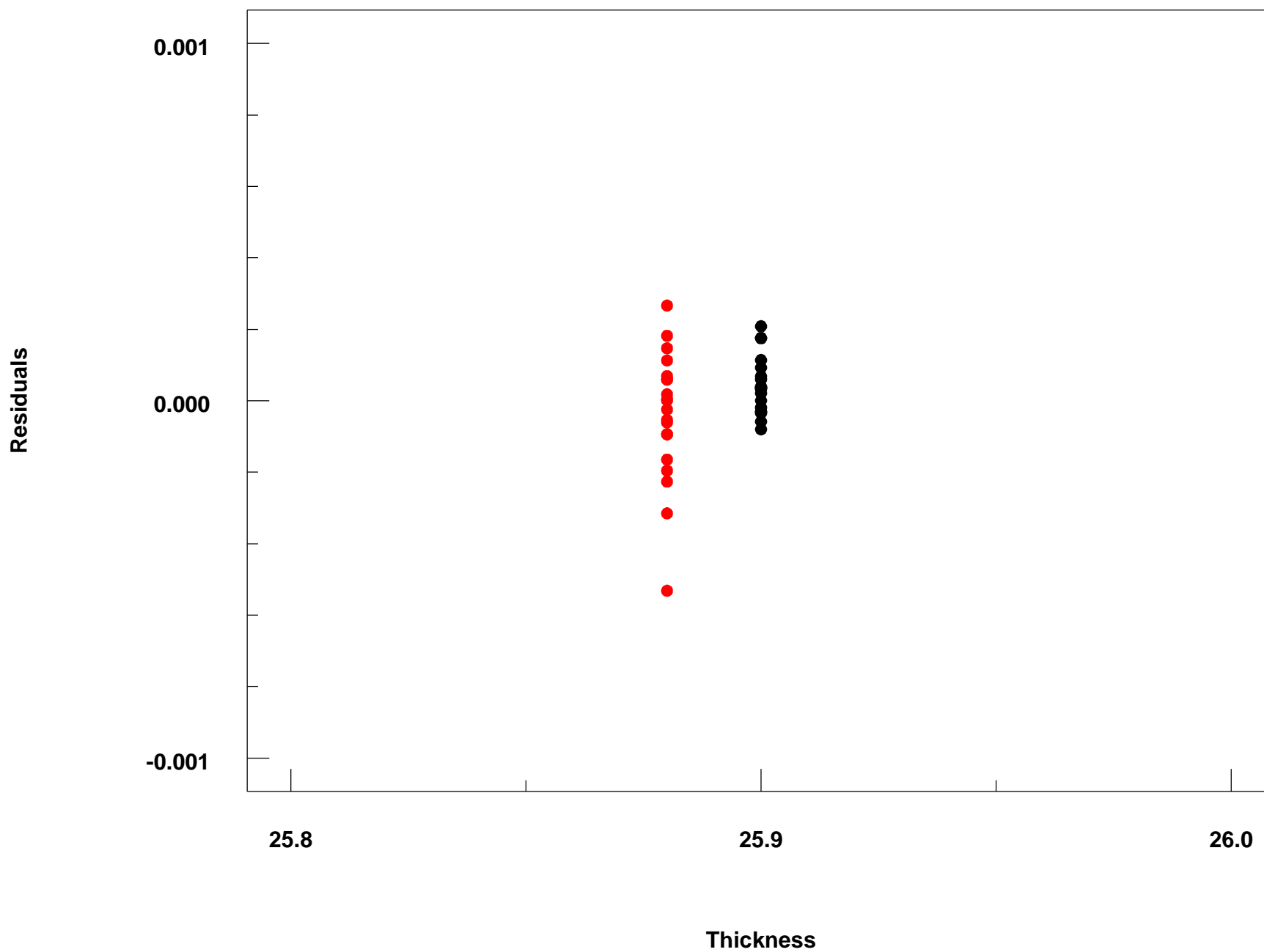
1970 Boulder Dataset Model 5a:  $k = -0.439841418 + 0.0001054905 \cdot t + 0.0035677968 \cdot d + 0.0011186856 \cdot \text{EXP}(-((t-183.13517646)/100.10655112)^2)$  (RESSD: 0.0001562217, BIC: -685.5062453)



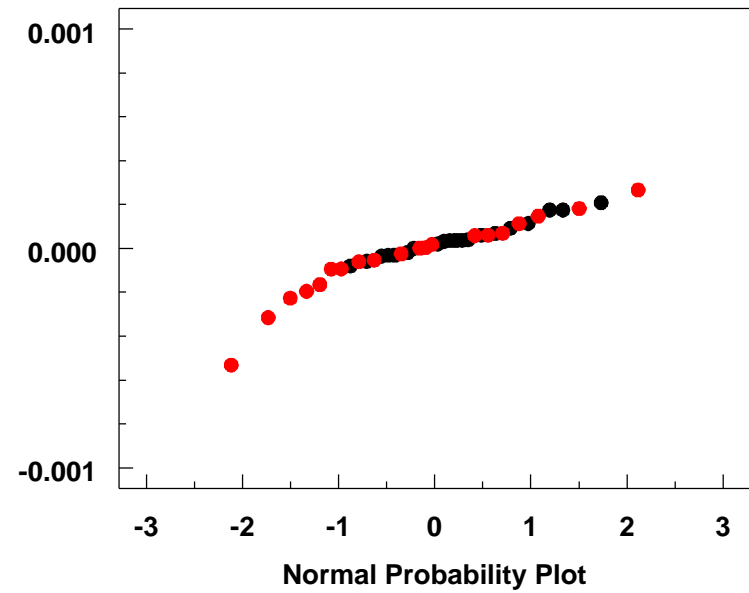
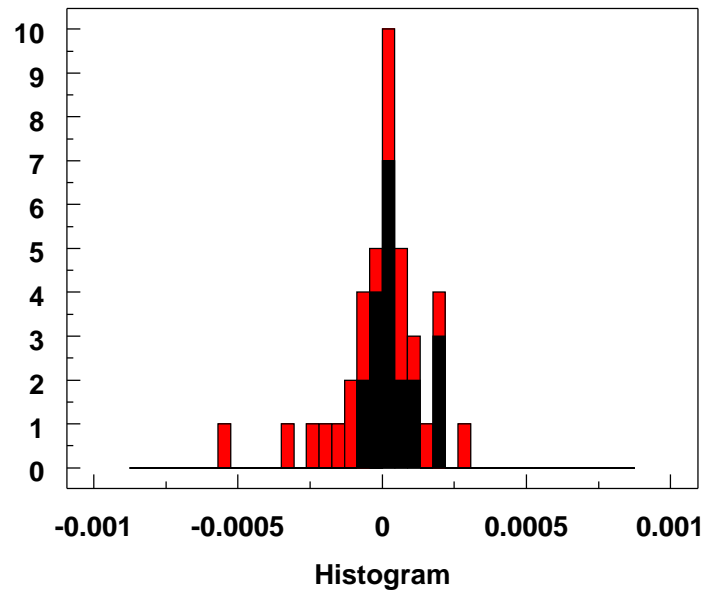
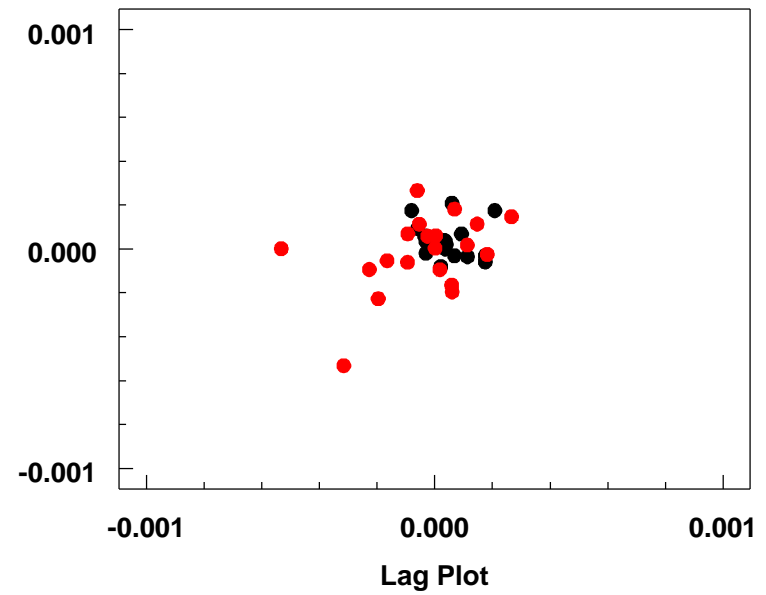
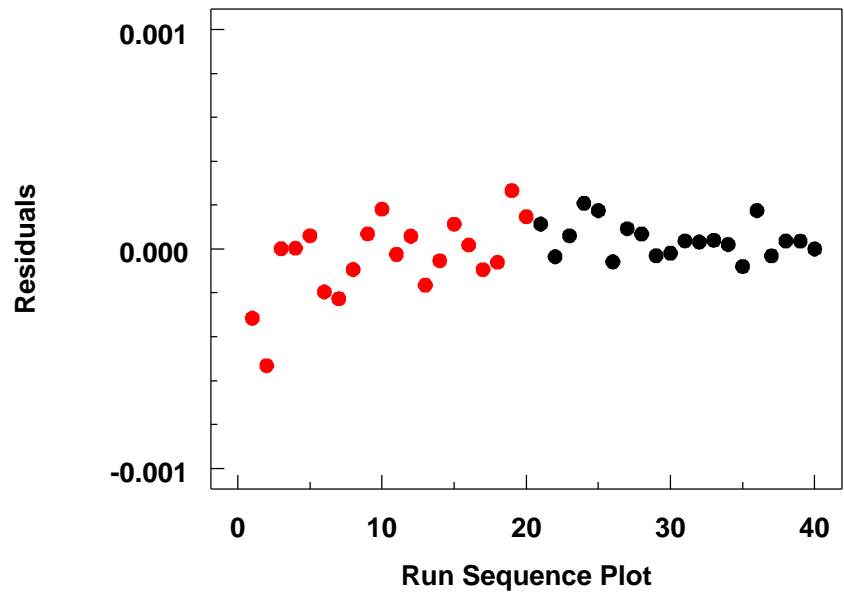
● - Density < 123.6

● - Density > 123.6

1970 Boulder Dataset Model 5a: Nuisance Factors Versus Residuals



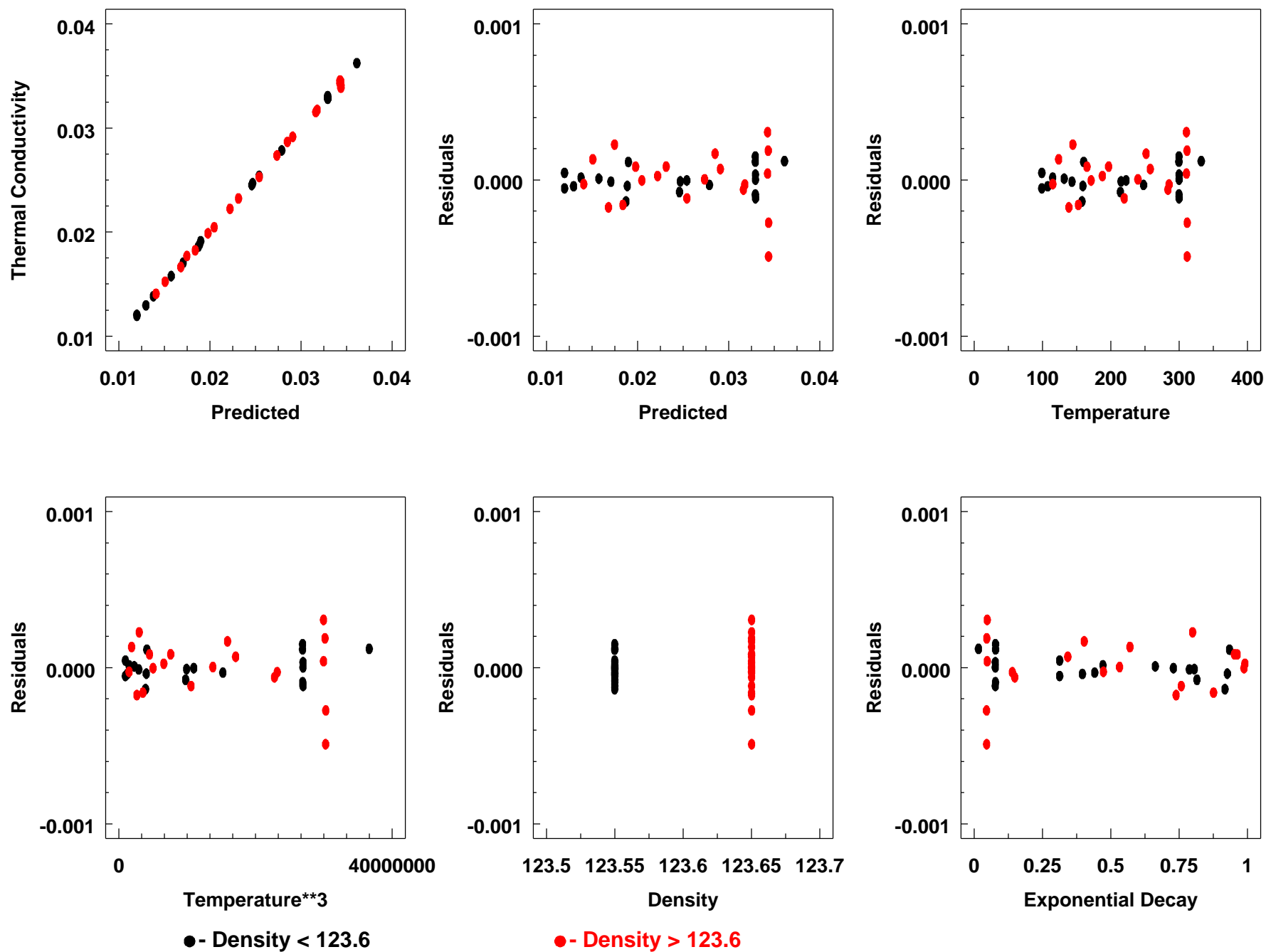
# 1970 Boulder Dataset Model 5a: 4-Plot of the Residuals



PPCC = 0.9462

1970 Boulder Dataset Model 6:  $k = 0.02472865 + 0.0001025565 \cdot t + 0.0035877704 \cdot d + 0 \cdot t^{**3} + 0.0006673573 \cdot e1$

RESSD: 0.0001475283, BIC: -692.6161201



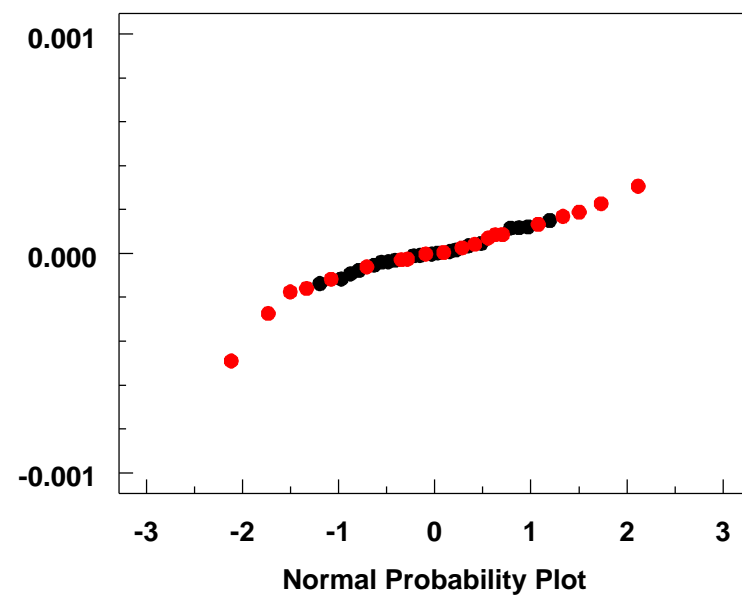
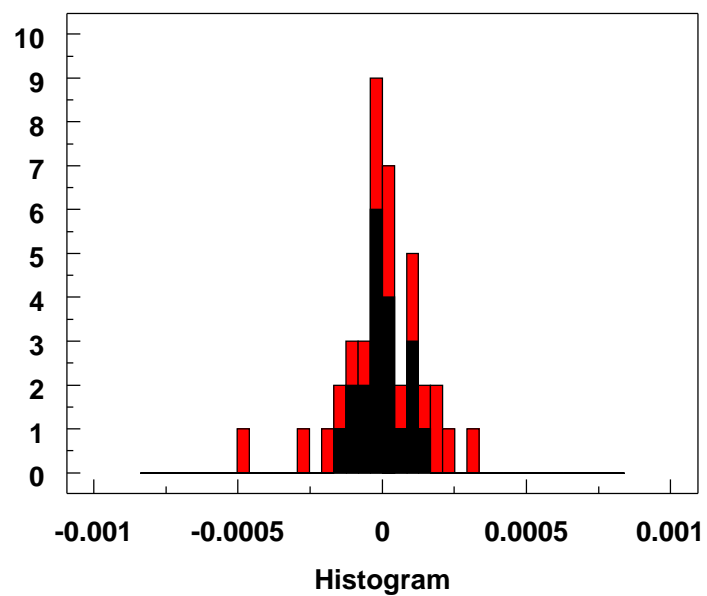
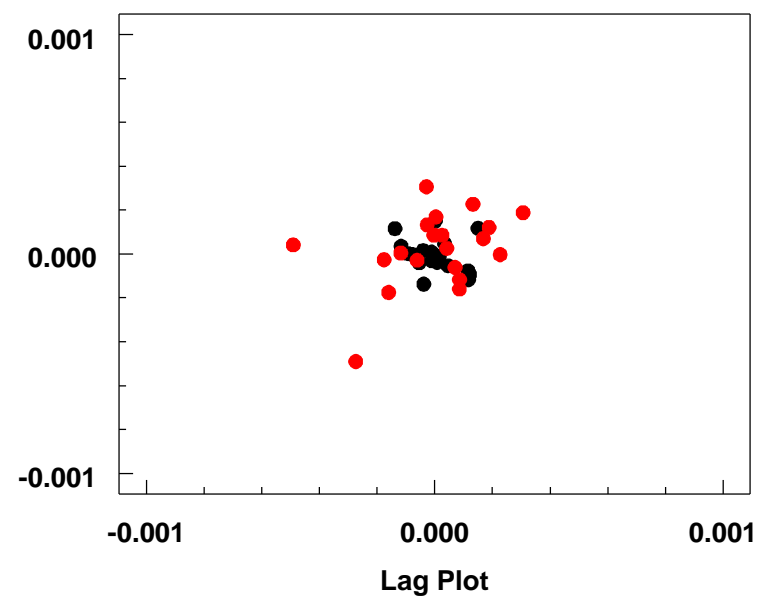
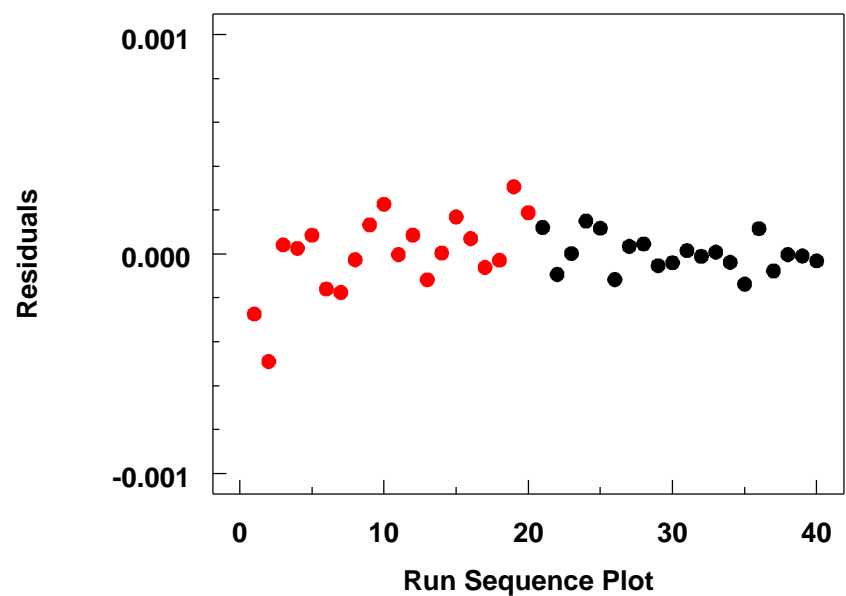
A scatter plot showing the relationship between Thickness (x-axis) and a variable ranging from -0.001 to 0.001 (y-axis). The x-axis is labeled 'Thickness' and ranges from 25.8 to 26.0. The y-axis ranges from -0.001 to 0.001. Red dots are clustered around Thickness 25.88, and black dots are clustered around Thickness 25.9.

**0.000**

**-0.001**

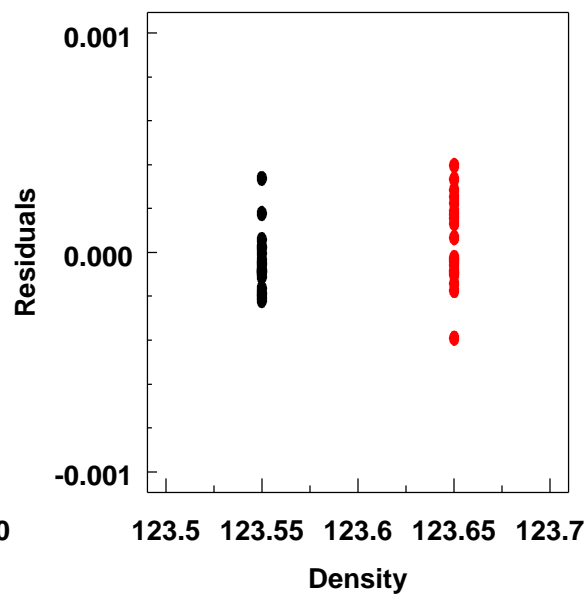
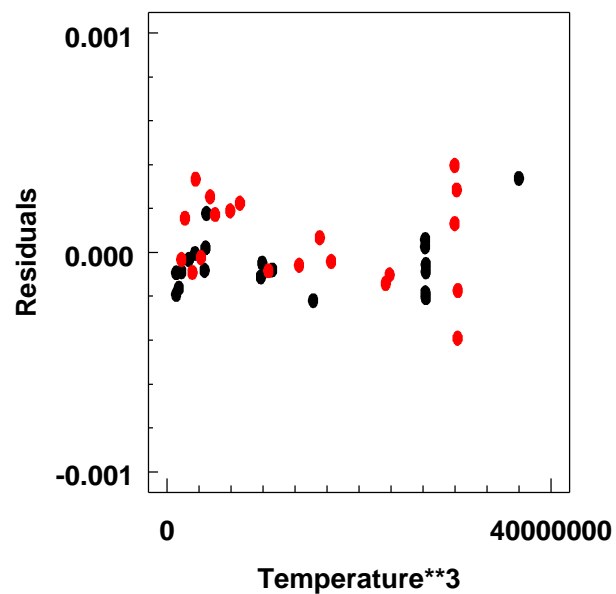
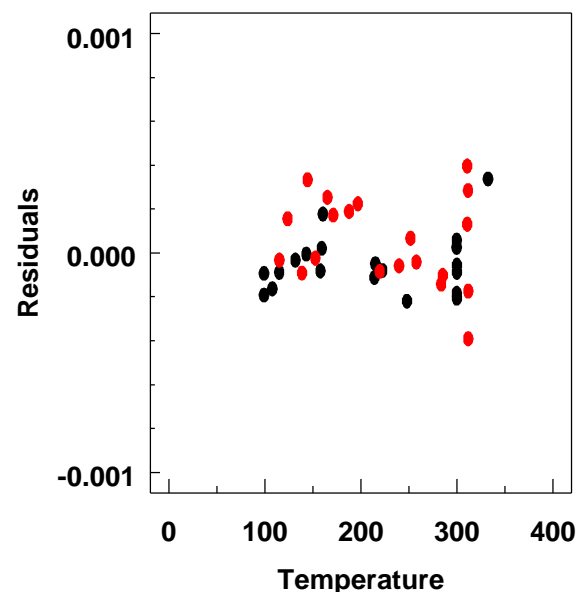
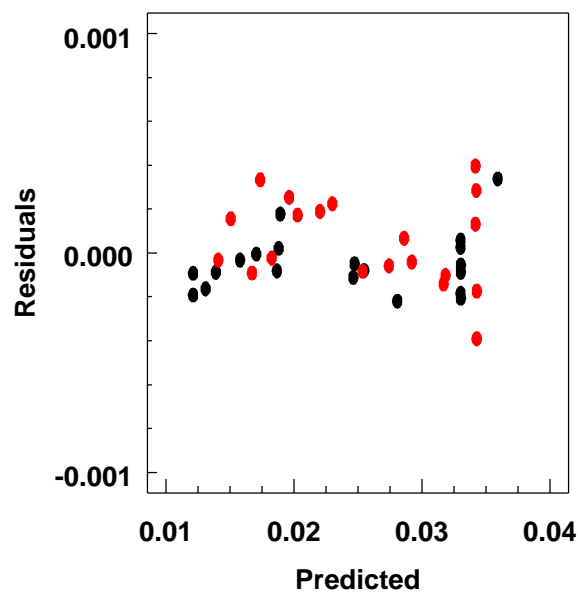
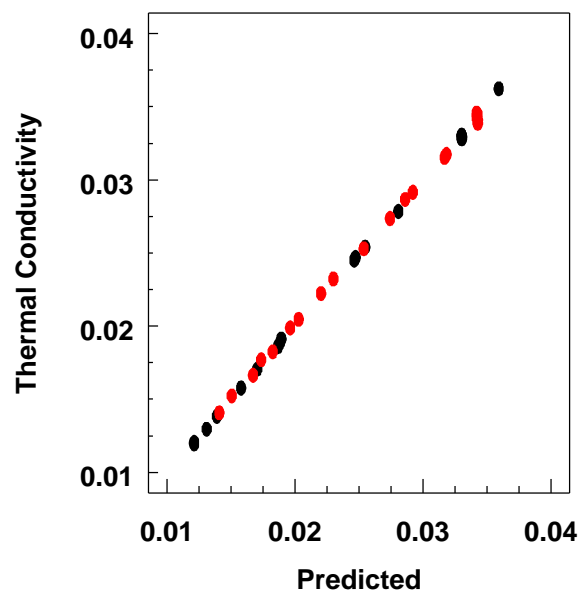
## 26.0

# 1970 Boulder Dataset Model 6: 4-Plot of the Residuals



PPCC = 0.9627

1970 Boulder Dataset Model 6a:  $k = -0.20896849 + 0.0001128777*t + 0.0017149468*d + 0*t^{**3} + -0.01671063*EXP(-((t--2781.71757)/-1950.444814)**2)$  (RESSD: 0.000191209, BIC: -666.8455527)

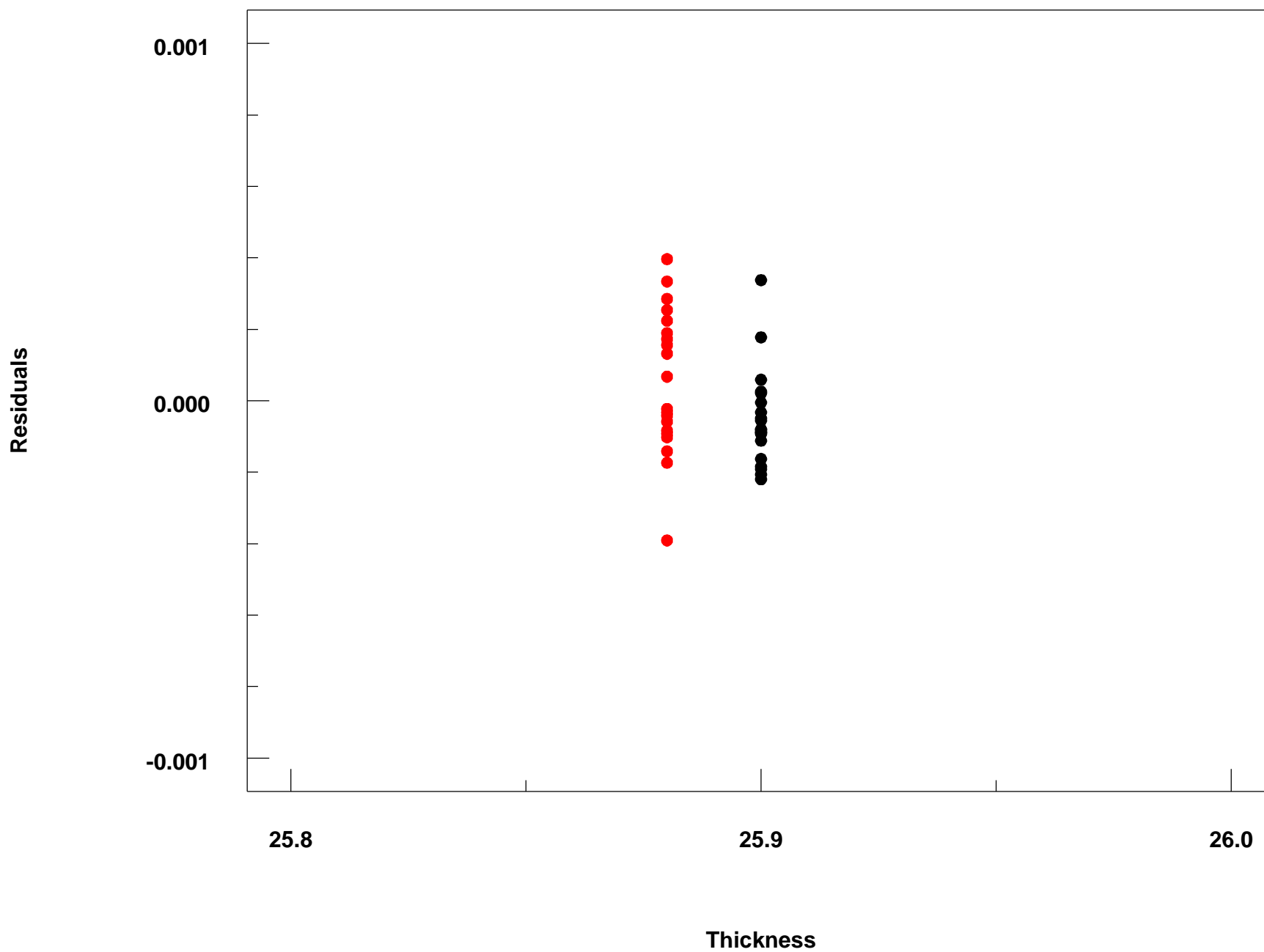


● - Density < 123.6

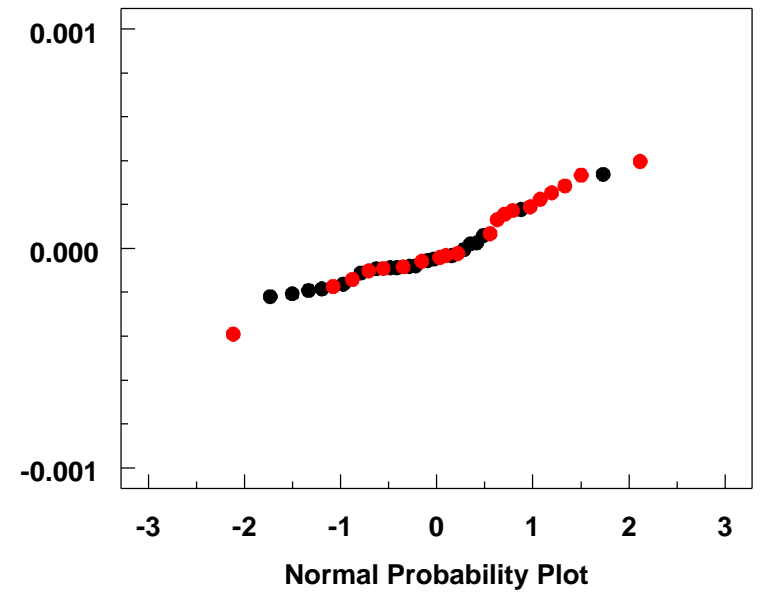
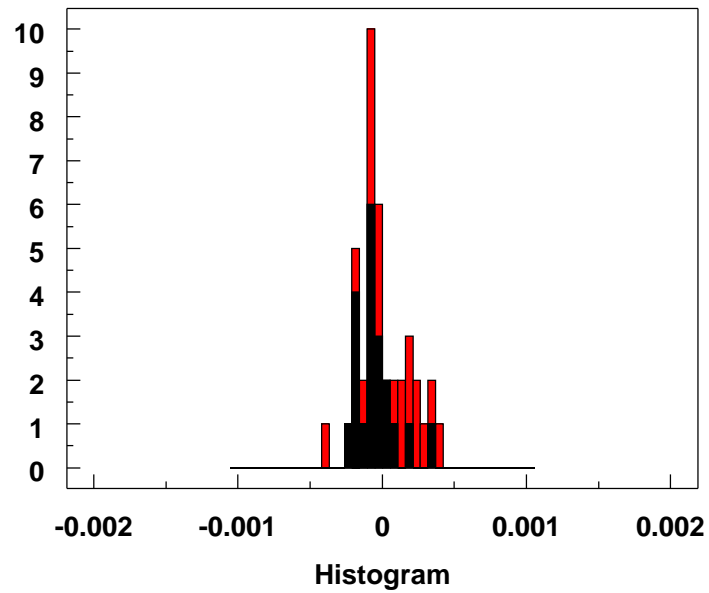
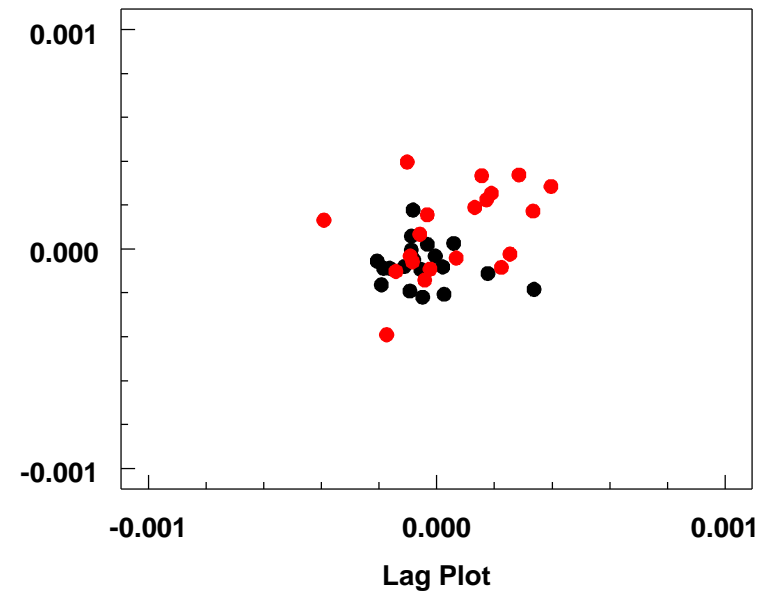
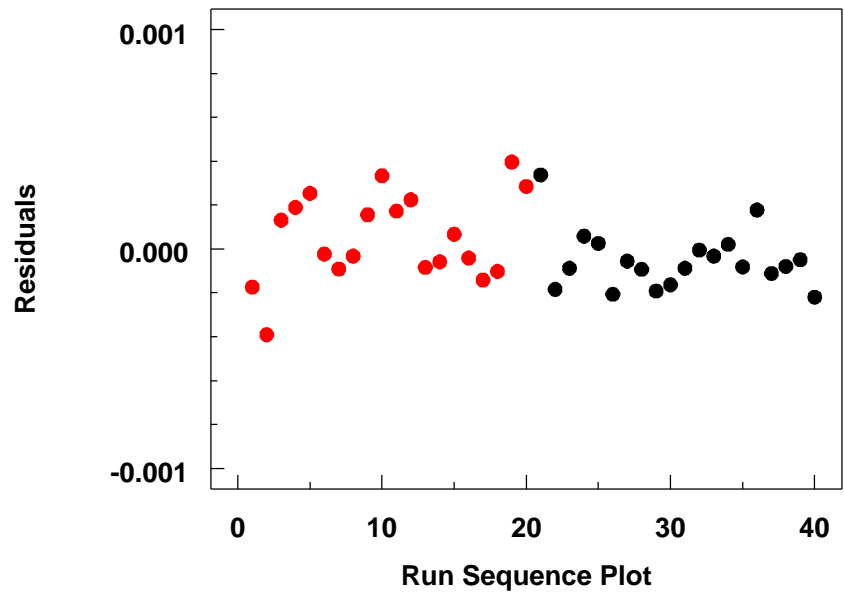
● - Density > 123.6



1970 Boulder Dataset Model 6a: Nuisance Factors Versus Residuals



1970 Boulder Dataset Model 6a: 4-Plot of the Residuals



PPCC = 0.9751

## 1970 Boulder

