Transition Curve Fitting Tool: Results

User Information:

Date: 2021-03-15

Starting Values for Optimization

Model: HT (Hyperbolic Tangent)

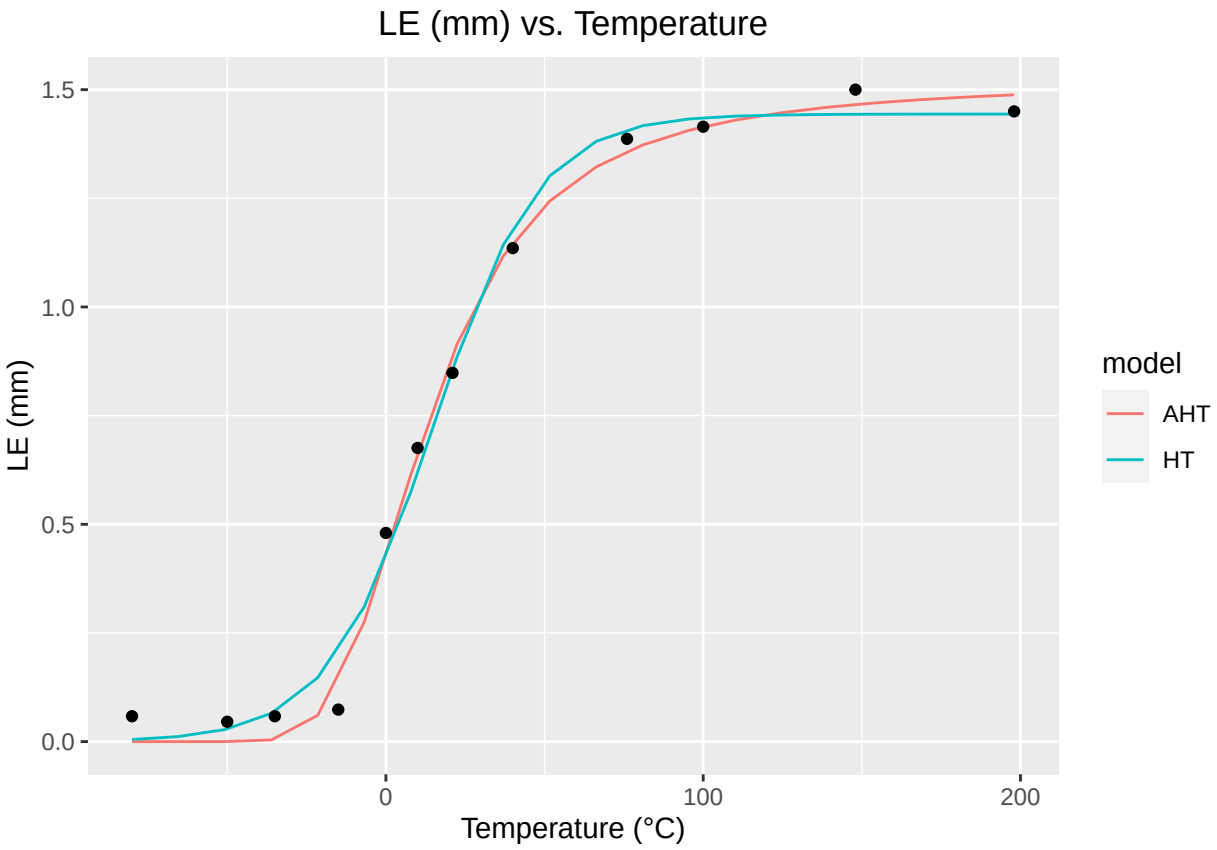
Parameter	Initial.Value
C (°C)	25.0
T0 (°C)	15.5
US	1.5

Model: AHT (Asymmetric Hyperbolic Tangent)

Parameter	Initial.Value
C (°C)	25.0
T0 (°C)	15.5
D	0.0
US	1.5

Shelf selection: The upper shelf was set to be not fixed, and the lower shelf was set to be fixed. The upper shelf value was initialized at 1.5 mm and the lower shelf was set to be 0.04572 mm.

Fitted Plot


LE (mm) vs. Temperature
LE (mm)
1.5
1.0
0.5
0.0
0
100
200
Temperature (°C)
model
AHT
HT

Coefficients Table

Model	Coefficient	Estimate	S.E.	Lower Cl	Upper Cl
AHT	C (°C)	31.0506	3.1089	26.4024	39.6446
AHT	DBTT (°C)	14.8096	1.5786	11.7514	18.3765
AHT	D	0.3881	0.1128	0.0459	0.4569
AHT	US	1.5836	0.0494	1.4669	1.6621
HT	C (°C)	33.3117	3.8330	27.5325	41.9885
HT	DBTT (°C)	14.7598	1.8547	11.4729	18.6937
HT	US	1.4895	0.0329	1.4290	1.5586

Fit Metrics Table

	Model	RMSE	AIC	BIC	Converged?
2	AHT	0.050	-66.776	-64.352	Yes
1	HT	0.062	-62.329	-60.389	Yes

DBTT Table (°C)

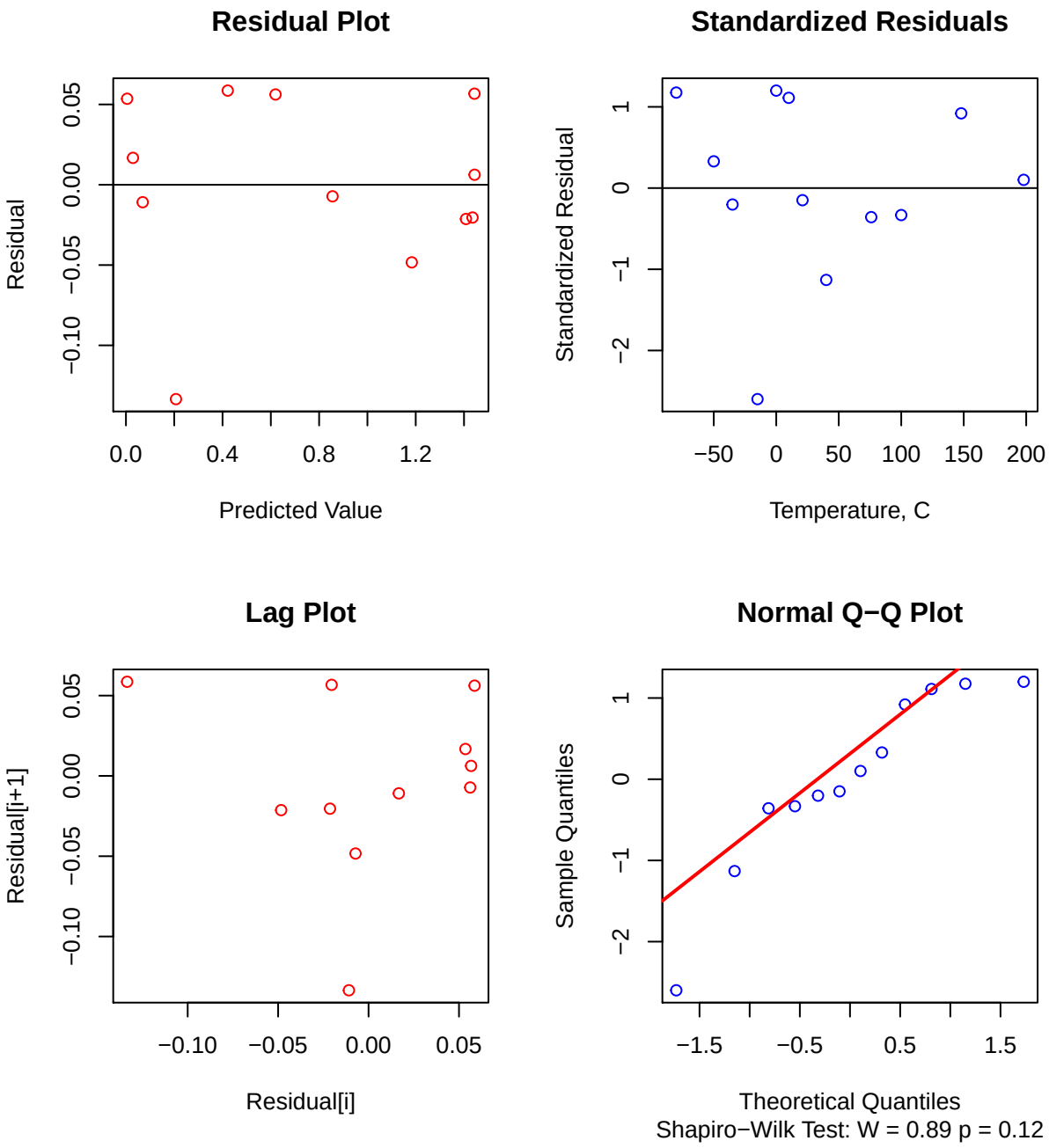
Model	Estimate	S.E.	Lower CI	Upper CI
AHT	14.8096	1.5786	11.7514	18.3765
HT	14.7598	1.8547	11.4729	18.6937

Other Characteristic Temperatures Table (°C)

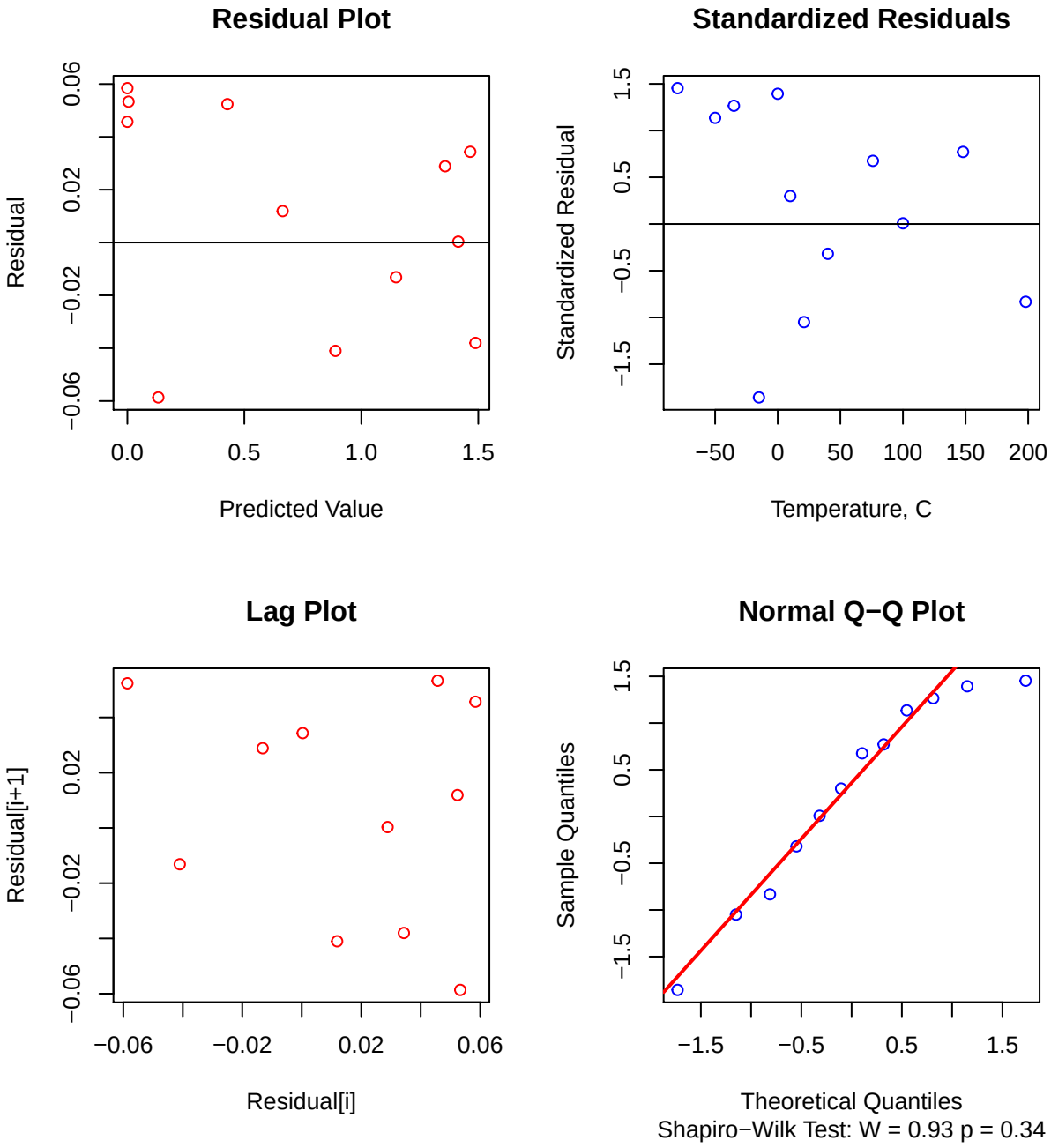
No additional characteristic temperatures selected.

Residuals

Model: HT



Model: AHT


Residual Plot
Residual
Predicted Value
0.0
0.5
1.0
1.5
0.06
0.02
−0.02
−0.06
Standardized Residuals
Standardized Residual
Temperature, C
−50
0
50
100
150
200
1.5
0.5
−0.5
−1.5
Lag Plot
Residual[i+1]
Residual[i]
Normal Q−Q Plot
Sample Quantiles
Theoretical Quantiles
Shapiro−Wilk Test: W = 0.93 p = 0.34