Transition Curve Fitting Tool: Results

User Information:

Date: 2021-02-17

Starting Values for Optimization

Model: HT (Hyperbolic Tangent)

Parameter	Initial.Value
C (°C)	25.000
T0 (°C)	15.500
lse	0.046
use	1.500

Model: AHT (Asymmetric Hyperbolic Tangent)

Parameter	Initial.Value
C (°C)	25.000
T0 (°C)	15.500
D	0.000
lse	0.046
use	1.500

Model: BUR (Burr)

Parameter	Initial.Value
k	1.000
T0 (°C)	15.500
\mathbf{m}	0.100
lse	0.046
use	1.500

Model: ACT (Arctangent)

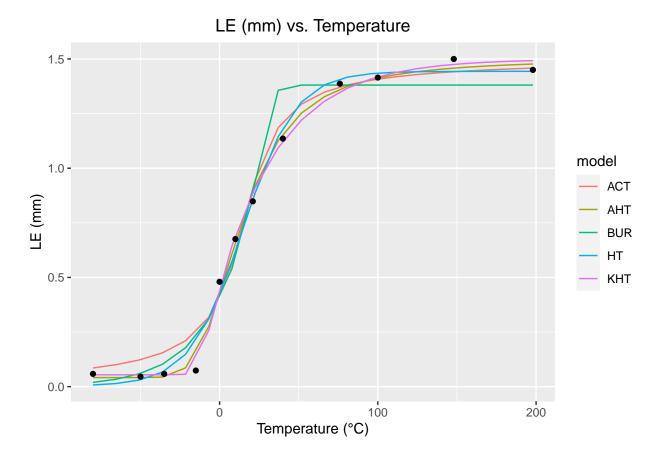
Parameter	Initial.Value
C (°C)	25.000
DBTT (°C)	15.500
lse	0.046
use	1.500

Model: KHT (Kohout - Asymmetric)

Parameter	Initial.Value
C (°C)	25.000
T0 (°C)	15.500
p	1.000
lse	0.046
use	1.500

Shelf selection: Both shelves were set to be not fixed. The upper shelf was initialized to be 1.5 mm and the lower shelf was initialized to be 0.04572 mm.

Fitted Plot



Coefficients Table

Model	Coefficient	Estimate	S.E.	Lower Cl	Upper Cl
KHT	C (°C)	21.1525	1.8934	17.6749	25.1200
KHT	T0 (°C)	-9.7770	3.1731	-14.9924	-3.2595
KHT	p	12.6768	54.3638	3.9973	144.6582
KHT	LSE	0.0542	0.0154	0.0228	0.0841
KHT	USE	1.4992	0.0230	1.4567	1.5455
AHT	C ($^{\circ}C$)	28.9708	2.3373	24.8337	35.1211
AHT	DBTT (°C)	15.2975	1.3423	12.7592	19.0223
AHT	D	0.3621	0.0869	0.0869	0.4142
AHT	LSE	0.0415	0.0170	0.0150	0.0892
AHT	USE	1.5150	0.0364	1.4290	1.5832
HT	C ($^{\circ}C$)	33.1515	4.2973	23.5421	40.4875
HT	DBTT (°C)	14.8308	2.1861	11.8561	20.4241
HT	LSE	0.0030	0.0301	0.0000	0.1092
HT	USE	1.4434	0.0342	1.3760	1.5058
ACT	C ($^{\circ}C$)	26.9575	6.9303	13.5563	40.4926
ACT	DBTT (°C)	15.0942	2.9672	10.3003	21.9870
ACT	LSE	0.0000	0.0456	0.0000	0.1490
ACT	USE	1.5030	0.0579	1.3848	1.6090
BUR	k	0.3740	1.4501	0.0674	4.9578
BUR	T0 (°C)	32.6244	12.2656	-5.2284	44.9662
BUR	m	0.1012	7.8512	0.0090	3.3917
BUR	LSE	0.0000	0.0672	0.0000	0.2287
BUR	USE	1.3806	0.0616	1.2730	1.5075

Fit Metrics Table

	Model	RMSE	AIC	BIC	Converged?
5	KHT	0.031	-78.171	-75.261	Yes
2	AHT	0.046	-68.293	-65.384	Yes
1	HT	0.065	-60.336	-57.911	Yes
4	ACT	0.094	-51.707	-49.283	Yes
3	BUR	0.131	-43.285	-40.375	Yes

DBTT Table (°C)

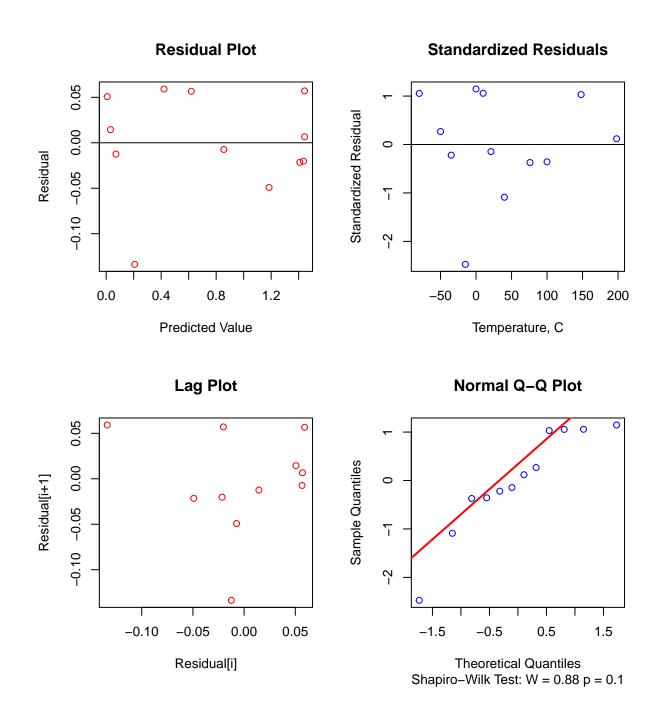
Model	Estimate	S.E.	Lower CI	Upper CI
KHT	14.4254	1.2752	11.4100	17.4407
AHT	15.2975	1.3423	12.7592	19.0223
HT	14.8308	2.1861	11.8561	20.4241
ACT	15.0942	2.9672	10.3003	21.9870
BUR	14.3115	3.8522	5.2024	23.4205

Other Characteristic Temperatures Table (°C)

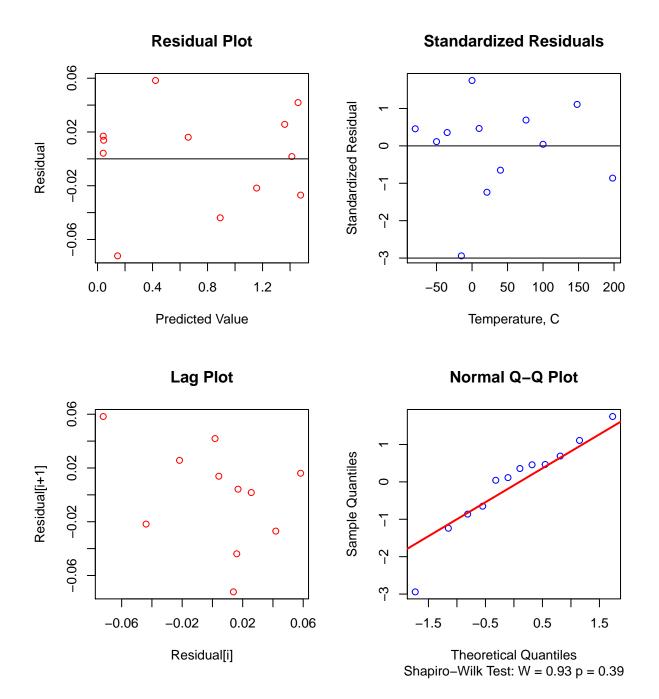
No additional characteristic temperatures selected.

Residuals

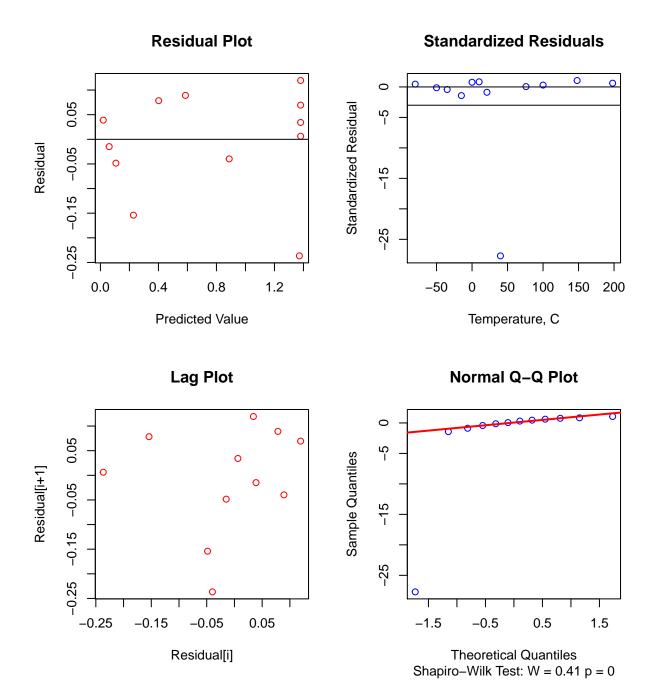
Model: HT



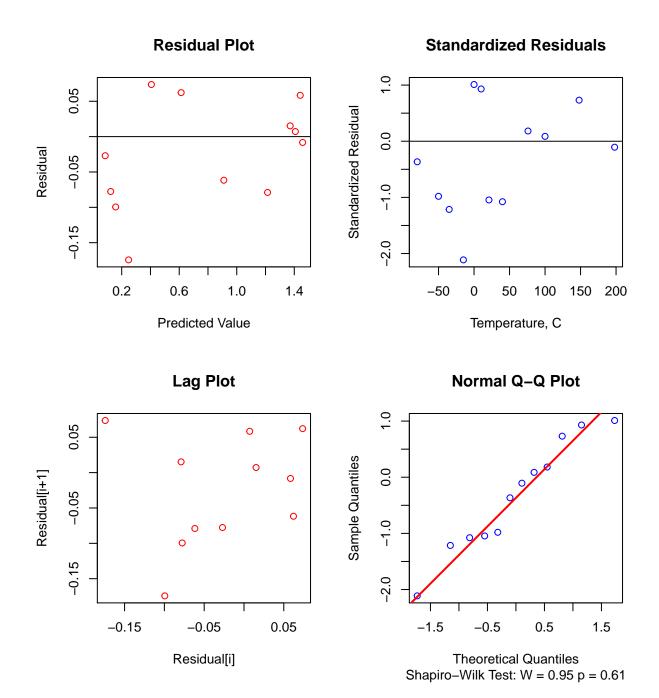
Model: AHT



Model: BUR



Model: ACT



Model: KHT

