

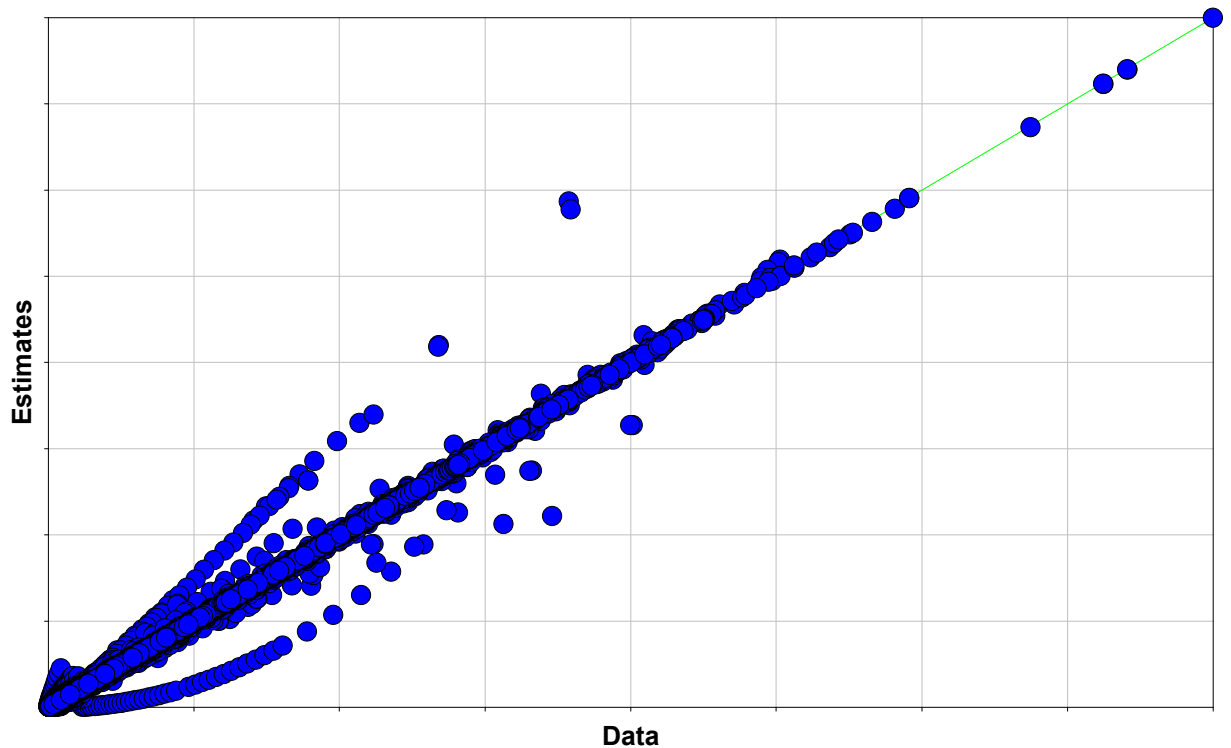
Pvp,I (T): Lee + Kesler Equation [MKS]

Evaluated on Mar 20, 2024 at 21:11:10

Evaluation Statistics

Statistic	Value	Units
Number of Observations	8216	- - -
Average Error	-2.292591	kPa
Average Absolute Error	18.863529	kPa
Average Absolute % Error	9.777756	%
Maximum Error	2562.190024	kPa
Minimum Error	-1382.844879	kPa
Maximum Absolute Error	2562.190024	kPa
Minimum Absolute Error	0.000226	kPa

Estimates vs Data Graph



Maximum Errors - Sorted by Absolute Percent Error

1) 1,2-Butylene carbonate

Temperature:

124.100000

C

Datum:	1.900000	---
Estimate:	16.900425	kPa
Error:	15.000425	kPa
2) 1,2-Butylene carbonate		
Temperature:	129.780000	C
Datum:	2.440000	---
Estimate:	20.894620	kPa
Error:	18.454620	kPa
3) 1,2-Butylene carbonate		
Temperature:	136.500000	C
Datum:	3.230000	---
Estimate:	26.607213	kPa
Error:	23.377213	kPa
4) 1,2-Butylene carbonate		
Temperature:	144.540000	C
Datum:	4.450000	---
Estimate:	35.086227	kPa
Error:	30.636227	kPa
5) 1,2-Butylene carbonate		
Temperature:	151.520000	C
Datum:	5.800000	---
Estimate:	44.146580	kPa
Error:	38.346580	kPa
6) 1,2-Butylene carbonate		
Temperature:	158.880000	C
Datum:	7.570000	---
Estimate:	55.690917	kPa
Error:	48.120917	kPa
7) 1,2-Butylene carbonate		
Temperature:	165.160000	C
Datum:	9.430000	---
Estimate:	67.384343	kPa
Error:	57.954343	kPa
8) 1,2-Butylene carbonate		
Temperature:	172.420000	C
Datum:	12.030000	---
Estimate:	83.302016	kPa
Error:	71.272016	kPa

9) 1,2-Butylene carbonate

Temperature:	180.050000	C
Datum:	15.390000	---
Estimate:	103.160168	kPa
Error:	87.770168	kPa

10) 1,2-Butylene carbonate

Temperature:	187.380000	C
Datum:	19.280000	---
Estimate:	125.641112	kPa
Error:	106.361112	kPa

Minimum Errors - Sorted by Absolute Percent Error

1) 2-Methylbutane

Temperature:	43.846000	C
Datum:	170.537000	---
Estimate:	170.536774	kPa
Error:	-0.000226	kPa

2) 1,2-Epoxy-2-methylpropane

Temperature:	226.050000	C
Datum:	4306.000000	---
Estimate:	4306.046672	kPa
Error:	0.046672	kPa

3) Acetone

Temperature:	226.630000	C
Datum:	4166.700000	---
Estimate:	4166.754921	kPa
Error:	0.054921	kPa

4) Trifluoroacetonitrile

Temperature:	0.040000	C
Datum:	1403.083050	---
Estimate:	1403.060666	kPa
Error:	-0.022384	kPa

5) Propane

Temperature:	-13.150000	C
Datum:	310.685000	---
Estimate:	310.679636	kPa
Error:	-0.005364	kPa

6) Trifluoroacetonitrile

Temperature:	37.960000	C
Datum:	3618.023736	---
Estimate:	3618.092948	kPa
Error:	0.069212	kPa

7) Silicon tetrachloride

Temperature:	234.950000	C
Datum:	3593.000000	---
Estimate:	3593.083502	kPa
Error:	0.083502	kPa

8) Germanium tetrachloride

Temperature:	280.050000	C
Datum:	3861.000000	---
Estimate:	3861.095136	kPa
Error:	0.095136	kPa

9) Acetone

Temperature:	234.950000	C
Datum:	4700.000000	---
Estimate:	4700.132918	kPa
Error:	0.132918	kPa

10) Propane

Temperature:	69.850000	C
Datum:	2585.000000	---
Estimate:	2584.908752	kPa
Error:	-0.091248	kPa

Estimated using the Lee + Kesler Equation [MKS] for the Vapor Pressure, Liquid - f(T). Referenced in: Byung I. Lee and Michael G. Kesler. "A Generalized Thermodynamic Correlation based on Three-Parameter Corresponding States." AIChE Journal. Volume 21, number 3, page 510-527, 1975.