

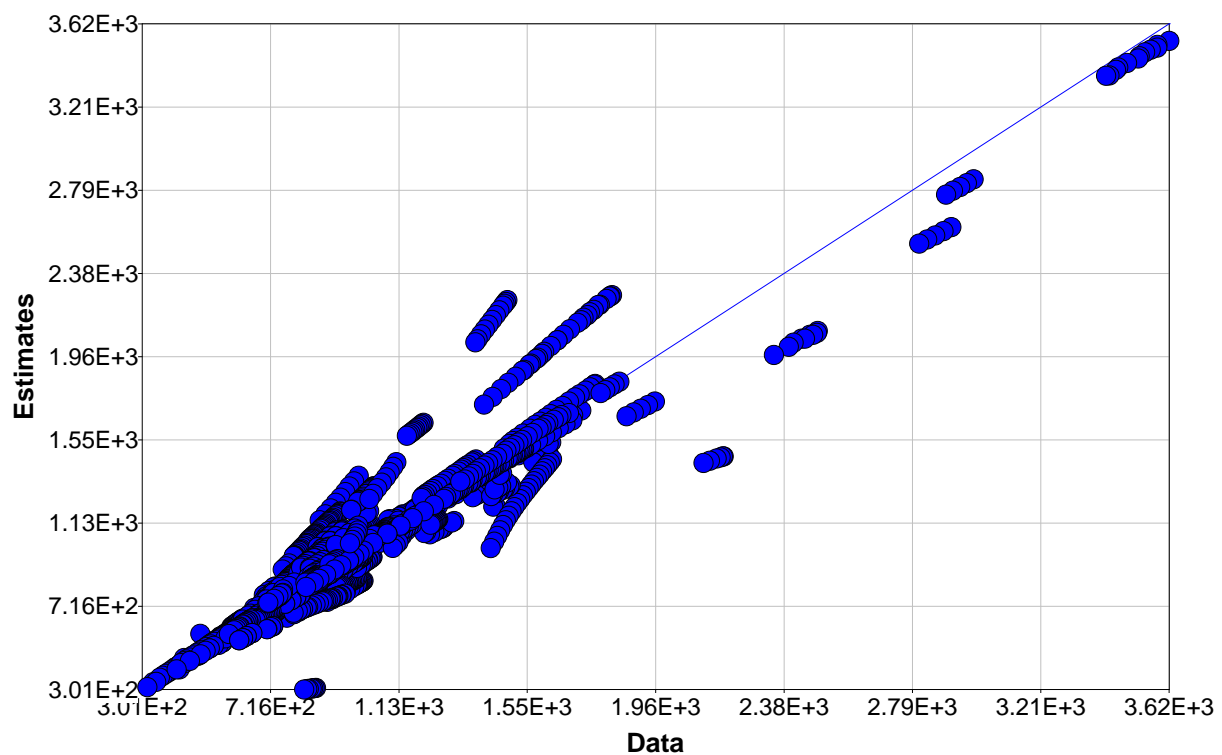
Den, I (T): Rackett Equation

Evaluated on Aug 08, 2016 at 00:10:42

Evaluation Statistics

Statistic	Value	Units
Number of Observations	2499	- - -
Average Error	6.26380	kg/m3
Average Absolute Error	60.18184	kg/m3
Average Absolute % Error	5.71560	%
Maximum Error	761.81998	kg/m3
Minimum Error	-716.12108	kg/m3
Maximum Absolute Error	761.81998	kg/m3
Minimum Absolute Error	0.00103	kg/m3

Estimates vs Data Graph



Maximum Errors

1) Trifluoroacetic acid

Temperature: 297.15000 K

Datum:	1481.20000	kg/m3
Estimate:	2243.01998	kg/m3
Error:	761.81998	kg/m3

2) Trifluoroacetic acid

Temperature:	299.15000	K
Datum:	1476.50000	kg/m3
Estimate:	2233.81960	kg/m3
Error:	757.31960	kg/m3

3) Trifluoroacetic acid

Temperature:	301.15000	K
Datum:	1471.80000	kg/m3
Estimate:	2224.58873	kg/m3
Error:	752.78873	kg/m3

4) Trifluoroacetic acid

Temperature:	303.15000	K
Datum:	1467.10000	kg/m3
Estimate:	2215.32682	kg/m3
Error:	748.22682	kg/m3

5) Trifluoroacetic acid

Temperature:	308.15000	K
Datum:	1455.40000	kg/m3
Estimate:	2192.03259	kg/m3
Error:	736.63259	kg/m3

6) Trifluoroacetic acid

Temperature:	313.15000	K
Datum:	1443.70000	kg/m3
Estimate:	2168.53179	kg/m3
Error:	724.83179	kg/m3

7) Trifluoroacetic acid

Temperature:	318.15000	K
Datum:	1431.90000	kg/m3
Estimate:	2144.81467	kg/m3
Error:	712.91467	kg/m3

8) Trifluoroacetic acid

Temperature:	323.15000	K
Datum:	1420.20000	kg/m3

Estimate:	2120.87071	kg/m3
Error:	700.67071	kg/m3

9) Trifluoroacetic acid

Temperature:	328.15000	K
Datum:	1408.50000	kg/m3
Estimate:	2096.68860	kg/m3
Error:	688.18860	kg/m3

10) Trifluoroacetic acid

Temperature:	333.15000	K
Datum:	1396.70000	kg/m3
Estimate:	2072.25611	kg/m3
Error:	675.55611	kg/m3

Minimum Errors

1) 1,2-Dibromoethane

Temperature:	293.15000	K
Datum:	2180.20000	kg/m3
Estimate:	1464.07892	kg/m3
Error:	-716.12108	kg/m3

2) 1,2-Dibromoethane

Temperature:	293.15000	K
Datum:	2177.70000	kg/m3
Estimate:	1464.07892	kg/m3
Error:	-713.62108	kg/m3

3) 1,2-Dibromoethane

Temperature:	298.15000	K
Datum:	2170.00000	kg/m3
Estimate:	1458.64715	kg/m3
Error:	-711.35285	kg/m3

4) 1,2-Dibromoethane

Temperature:	303.15000	K
Datum:	2157.40000	kg/m3
Estimate:	1453.16739	kg/m3
Error:	-704.23261	kg/m3

5) 1,2-Dibromoethane

Temperature:	313.15000	K
Datum:	2135.40000	kg/m3
Estimate:	1442.05819	kg/m3
Error:	-693.34181	kg/m3

6) 1,2-Dibromoethane

Temperature:	323.15000	K
Datum:	2115.30000	kg/m3
Estimate:	1430.73928	kg/m3
Error:	-684.56072	kg/m3

7) Methylhydrazine

Temperature:	303.15000	K
Datum:	863.20000	kg/m3
Estimate:	309.55218	kg/m3
Error:	-553.64782	kg/m3

8) Methylhydrazine

Temperature:	308.15000	K
Datum:	858.40000	kg/m3
Estimate:	308.54137	kg/m3
Error:	-549.85863	kg/m3

9) Methylhydrazine

Temperature:	313.15000	K
Datum:	853.50000	kg/m3
Estimate:	307.51990	kg/m3
Error:	-545.98010	kg/m3

10) Methylhydrazine

Temperature:	318.15000	K
Datum:	848.70000	kg/m3
Estimate:	306.48740	kg/m3
Error:	-542.21260	kg/m3

References

1) Estimated using Rackett Equation for the Density, Liquid - $f(T)$. Referenced in: Harold G. Rackett. "Equation of State for Saturated Liquids." Journal of Chemical and Engineering Data. Volume 15, number 4, page 514 - 517, 1970.
