Table 3. Vapor−Liquid Equilibrium Measurements for the Propane (1) + Butane (2) System at (273.15 to 323.15) K

Experimental data					
P/MPa	x_1	y_1	P/MPa	x_1	y_1
T = 273.15 K			T = 283.15 K		
0.103	0.000	0.000	0.149	0.000	0.000
0.126	0.060	0.172	0.180	0.065	0.182
0.144	0.113	0.300	0.216	0.146	0.322
0.188	0.228	0.504	0.260	0.242	0.492
0.203	0.270	0.563	0.374	0.476	0.717
0.302	0.543	0.773	0.413	0.552	0.774
0.337	0.638	0.839	0.456	0.643	0.838
0.370	0.727	0.887	0.509	0.745	0.893
0.395	0.792	0.915	0.546	0.819	0.925
0.442	0.912	0.970	0.578	0.882	0.956
0.450	0.933	0.978	0.601	0.931	0.974
0.462	0.963	0.989	0.620	0.965	0.988
0.476	1.000	1.000	0.633	1.000	1.000
T = 293.15 K			T = 303.15 K		
0.208	0.000	0.000	0.284	0.000	0.000
0.242	0.058	0.152	0.324	0.054	0.132
0.272	0.108	0.245	0.364	0.113	0.266
0.326	0.201	0.421	0.456	0.235	0.464
0.388	0.304	0.564	0.529	0.330	0.582
0.460	0.419	0.679	0.611	0.436	0.686
0.530	0.532	0.769	0.693	0.543	0.768
0.579	0.606	0.812	0.775	0.641	0.826
0.624	0.679	0.854	0.856	0.736	0.882
0.649	0.714	0.872	0.910	0.802	0.916
0.726	0.833	0.933	0.966	0.866	0.945
0.771	0.900	0.961	1.010	0.919	0.966
0.820	0.971	0.991	1.049	0.964	0.986
0.833	1.000	1.000	1.079	1.000	1.000
T = 313.15 K			T = 323.15 K		
0.378	0.000	0.000	0.493	0.000	0.000
0.429	0.063	0.164	0.557	0.054	0.139
0.510	0.148	0.323	0.618	0.112	0.254
0.574	0.217	0.432	0.743	0.226	0.432
0.683	0.335	0.580	0.878	0.334	0.563
0.777	0.434	0.671	0.971	0.426	0.651
0.882	0.540	0.754	1.101	0.535	0.732
0.988	0.640	0.819	1.222	0.634	0.804
1.077	0.729	0.872	1.324	0.714	0.853
1.151	0.802	0.907	1.448	0.808	0.906
1.212	0.859	0.938	1.564	0.895	0.950
1.269	0.911	0.963	1.602	0.922	0.964
1.323	0.959	0.983	1.643	0.951	0.978
1.366	1.000	1.000	1.709	1.000	1.000

Data Summary entry for this table

Table #: 3
System type (Pure, Binary, Ternary, Reaction): Binary
Chemical System(s): propane + butane
Data Type: *PTxy*
Experimental Method:
Composition: GC for gas and liquid
Pressure: transducer
Temperature: platinum-sensor
State Variables and Constraints: temperature T, pressure p, liquid and gas mole fractions of propane x_1 and y_1
Standard Uncertainty (k = 1) for each Variable and Constraint:
$\sigma(T)$ = 0.01 K; $\sigma(p)$ = 0.001 MPa; $\sigma(x)$ = 0.002 $\sigma(y)$ = 0.002