

**Viscosity of Water + *tert*-Butyl Alcohol (2-Methyl-2-propanol) Mixtures at Low Temperatures and High Pressure.**

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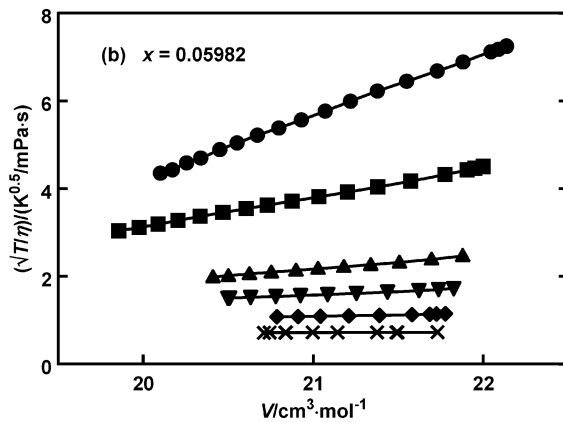
Pages 582 to 585. There was an error in the calculation of the densities at  $x = 0.05982$  from the Tait equation parameters of Table 2 in the spreadsheets used to construct Table 3. (The parameters in Table 2 are correct.) This affected the isotherms at (0, 5, 15, and 25) °C. The resultant relative change to the viscosities is small, at most  $-1.0\%$  at 15 °C and 349.8 MPa. Revised values are tabulated below. Change is also required to the coefficients for eq 2 at  $x = 0.05982$  (Table 4) in Figure 2(b) and its caption. The discussion of the results is unaffected.

**Table 3. Viscosity  $\eta$  of Aqueous TBA Solutions**

$x = 0.05982, \theta = 0.00\text{ }^\circ\text{C}$				$x = 0.05982, \theta = 5.00\text{ }^\circ\text{C}$			
$p/\text{MPa}$	$t/\text{s}$	$\rho/\text{g}\cdot\text{cm}^{-3}$	$\eta/\text{mPa}\cdot\text{s}$	$p/\text{MPa}$	$t/\text{s}$	$\rho/\text{g}\cdot\text{cm}^{-3}$	$\eta/\text{mPa}\cdot\text{s}$
0.1	317.4	0.97921	9.584	0.1	223.6	0.97686	6.754
0.1	318.2	0.97921	9.608	0.1	223.6	0.97686	6.752
11.0	322.1	0.98322	9.721	24.1	231.2	0.98507	6.975
25.6	327.1	0.98848	9.863	50.6	238.6	0.99373	7.187
50.0	334.0	0.99697	10.06	75.6	244.4	1.00159	7.355
75.6	340.6	1.00556	10.25	100.6	249.8	1.00911	7.510
100.6	346.4	1.01362	10.41	125.5	255.0	1.01636	7.658
125.5	352.0	1.02139	10.56	148.0	259.8	1.02267	7.794
149.0	356.9	1.02850	10.70	174.2	265.3	1.02981	7.951
174.3	362.7	1.03589	10.86	198.6	270.7	1.03622	8.104
196.1	366.9	1.04209	10.98	222.9	277.0	1.04246	8.287
198.0	368.2	1.04264	11.02	241.5	280.6	1.04710	8.388
$x = 0.05982, \theta = 15.00\text{ }^\circ\text{C}$				$x = 0.05982, \theta = 25.00\text{ }^\circ\text{C}$			
$p/\text{MPa}$	$t/\text{s}$	$\rho/\text{g}\cdot\text{cm}^{-3}$	$\eta/\text{mPa}\cdot\text{s}$	$p/\text{MPa}$	$t/\text{s}$	$\rho/\text{g}\cdot\text{cm}^{-3}$	$\eta/\text{mPa}\cdot\text{s}$
0.1	124.7	0.97148	3.769	0.1	78.7	0.96548	2.380
0.1	124.6	0.97148	3.765	0.1	78.8	0.96548	2.383
5.5	125.9	0.97366	3.802	5.6	79.6	0.96756	2.406
10.7	127.0	0.97571	3.834	10.6	80.2	0.96947	2.424
25.7	130.2	0.98155	3.928	30.6	83.0	0.97674	2.506
50.2	135.0	0.99069	4.068	50.1	85.7	0.98354	2.583
75.6	139.7	0.99966	4.202	75.0	88.9	0.99174	2.677
100.6	144.0	1.00807	4.328	100.6	92.2	0.99977	2.773
125.5	148.1	1.01609	4.445	125.5	95.9	1.00720	2.880
150.5	152.4	1.02379	4.570	150.5	99.7	1.01429	2.992
174.7	156.3	1.03097	4.681	175.5	103.4	1.02110	3.101
196.3	159.9	1.03716	4.785	200.4	107.0	1.02761	3.207
221.4	164.4	1.04411	4.914	225.4	110.5	1.03387	3.308
247.1	168.5	1.05098	5.033	250.2	114.5	1.03989	3.424
273.4	173.7	1.05778	5.184	272.2	118.1	1.04505	3.530
298.0	178.3	1.06393	5.316	297.5	123.1	1.05079	3.676
322.4	182.8	1.06987	5.444	317.1	126.1	1.05510	3.765
349.8	187.7	1.07633	5.586	337.4	130.6	1.05946	3.896
				355.2	133.0	1.06320	3.965

**Table 4. Coefficients of Best Fit for Equation 2 (Modified VFT Equation)**

$x$	0.05982
$a$	-3.7313
$b\cdot 10^3/\text{MPa}^{-1}$	4.2407
$c\cdot 10^6/\text{MPa}^{-2}$	0.85168
$d/\text{K}$	490.88
$e/(\text{K}\cdot\text{MPa}^{-1})$	-0.27321
$f\cdot 10^3/(\text{K}\cdot\text{MPa}^{-2})$	-0.20692
$g\cdot 10^7/(\text{K}\cdot\text{MPa}^{-3})$	1.1955
$T_0/\text{K}$	191.27
$\delta (= d/T_0)$	2.57
standard relative uncertainty of fit/%	0.6



**Figure 2.** Temperature-corrected fluidity ( $\phi = 1/\eta$ ) of aqueous TBA solutions as a function of molar volume,  $V$ . (b)  $x = 0.05982$ : 25 °C,  $(\sqrt{T}/\eta)/(\text{K}^{0.5}/\text{mPa}\cdot\text{s}) \equiv y = 1.4174 \cdot (V/\text{cm}^3 \cdot \text{mol}^{-1}) - 24.110$ ; 15 °C,  $y = 0.6767 \cdot (V/\text{cm}^3 \cdot \text{mol}^{-1}) - 10.403$ ; 5 °C,  $y = 0.3223 \cdot (V/\text{cm}^3 \cdot \text{mol}^{-1}) - 4.5955$ ; 0 °C,  $y = 0.1629 \cdot (V/\text{cm}^3 \cdot \text{mol}^{-1}) - 1.8421$ . Note that the (-5 and -10) °C isotherms are actually nonlinear.

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