

CORRECTIONS

Akihiro Abe* and Su Yong Nam: *PVT Studies on Dimer Liquid Crystals and Estimation of Transition Entropies at Constant Volume.* Volume 28, Number 1, January 2, 1995, pp 90–95.

The values of thermal expansion coefficient α and compressibility β were taken from wrong sources. Corrected Tables 1–3 follow.

Table 1. Experimental Values of $\beta = -(\partial \ln v_{sp}/\partial p)_t$ Estimated in the Low-Pressure Region for the Nematic and Isotropic States Slightly above the Transition Temperature

thermal process	nematic, in the vicinity of T_m or T_c		isotropic, in the vicinity of T_{ni}	
	T_m or T_c (°C)	$\beta \times 10^3$ (MPa ⁻¹)	T_{ni} (°C)	$\beta \times 10^3$ (MPa ⁻¹)
CBA-9				
heating	139	0.49 ± 0.10	174	0.84 ± 0.01
cooling	125	0.61 ± 0.11	174	0.91 ± 0.01
CBA-10				
heating	165	0.52 ± 0.20	190	0.80 ± 0.01
cooling	164	0.62 ± 0.08	189	0.88 ± 0.01

Table 2. Specific Volumes v_{sp} and Thermal Expansion Coefficients $\alpha = (\partial \ln v_{sp}/\partial t)_p$ Estimated for $p = 0^a$

CBA-9		CBA-10	
heating	cooling	heating	cooling
Crystalline Phase		Crystalline Phase	
range of temperatures: 30–139 °C	range of temperatures: 40–125 °C	range of temperatures: 30–165 °C	range of temperatures: 130–164 °C
$v_{sp}(t) = 0.8779 + 2.0679 \times 10^{-4}(t - 30)$	$v_{sp}(t) = 0.8834 + 2.8517 \times 10^{-4}(t - 40)$	$v_{sp}(t) = 0.8817 + 2.9364 \times 10^{-4}(t - 30)$	$v_{sp}(t) = 0.9069 + 4.9216 \times 10^{-4}(t - 130)$
$\alpha(t) = 1.4501 \times 10^{-4} + 1.7468 \times 10^{-6}(t - 30)$	$\alpha(t) = 3.0459 \times 10^{-4} + 3.9592 \times 10^{-7}(t - 40)$	$\alpha(t) = 3.5631 \times 10^{-4} + 4.6242 \times 10^{-7}(t - 30)$	$\alpha(t) = 3.2503 \times 10^{-4} + 1.3950 \times 10^{-5}(t - 130)$
Nematic Phase		Nematic Phase	
range of temperatures: 139–174 °C	range of temperatures: 125–174 °C	range of temperatures: 165–190 °C	range of temperatures: 164–189 °C
$v_{sp}(t) = 0.9701 + 9.2788 \times 10^{-4}(t - 139)$	$v_{sp}(t) = 0.9663 + 8.2257 \times 10^{-4}(t - 125)$	$v_{sp}(t) = 0.9952 + 1.0000 \times 10^{-3}(t - 165)$	$v_{sp}(t) = 0.9933 + 8.9000 \times 10^{-4}(t - 164)$
$\alpha(t) = 8.6000 \times 10^{-4} - 8.4282 \times 10^{-8}(t - 139)$	$\alpha(t) = 8.8500 \times 10^{-4} - 6.0932 \times 10^{-7}(t - 125)$	$\alpha(t) = 9.0000 \times 10^{-4} - 4.8000 \times 10^{-8}(t - 165)$	$\alpha(t) = 8.0500 \times 10^{-4} - 3.3364 \times 10^{-7}(t - 164)$
Isotropic Phase		Isotropic Phase	
range of temperatures: 174–250 °C	range of temperatures: 174–250 °C	range of temperatures: 190–250 °C	range of temperatures: 189–250 °C
$v_{sp}(t) = 1.0148 + 7.8028 \times 10^{-4}(t - 174)$	$v_{sp}(t) = 1.0196 + 8.4197 \times 10^{-4}(t - 174)$	$v_{sp}(t) = 1.0380 + 7.7121 \times 10^{-4}(t - 190)$	$v_{sp}(t) = 1.0352 + 7.9722 \times 10^{-4}(t - 189)$
$\alpha(t) = 7.8014 \times 10^{-4} - 8.4282 \times 10^{-7}(t - 174)$	$\alpha(t) = 8.2663 \times 10^{-4} - 6.8093 \times 10^{-7}(t - 174)$	$\alpha(t) = 7.4150 \times 10^{-4} + 4.9415 \times 10^{-7}(t - 190)$	$\alpha(t) = 8.1722 \times 10^{-4} - 3.3364 \times 10^{-7}(t - 189)$

^a The mathematical expressions are defined in eqs 4 and 5: $v_{sp}/\text{cm}^3 \text{ g}^{-1}$, α/deg^{-1} , $t/^\circ\text{C}$.

Table 3. Experimental Values of ΔV_{cn} and $\alpha = (\partial \ln v_{sp}/\partial t)_p$ Estimated for $p = 0$ in the Nematic and Isotropic Regions

thermal process	nematic, in the vicinity of T_m or T_c			isotropic, in the vicinity of T_{ni}		
	T_m or T_c (°C)	ΔV_{cn} (cm ³ g ⁻¹)	$\alpha \times 10^3$ (K ⁻¹)	T_{ni} (°C)	ΔV_{ni} (cm ³ g ⁻¹)	$\alpha \times 10^3$ (K ⁻¹)
CBA-9						
heating	139	0.0730	0.86	174	0.0145	0.78
cooling	125	0.0594	0.89	174	0.0159	0.83
CBA-10						
heating	165	0.0745	0.90	190	0.0178	0.74
cooling	164	0.0716	0.81	189	0.0197	0.82

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