

Our para-azoxyanisol sample was purchased from Eastman Kodak company; we did not make any purification before or during its handling, however the transition temperatures were checked after each measurement: in particular, their values were not changed after experiments up to 3 kbar; this indicates that there is no substantial degradation in the corresponding temperature range.

3. Phase Diagram

The effect of pressure on the transition temperatures is shown in Fig. 1; clearly, this is a very large effect: common slopes for the

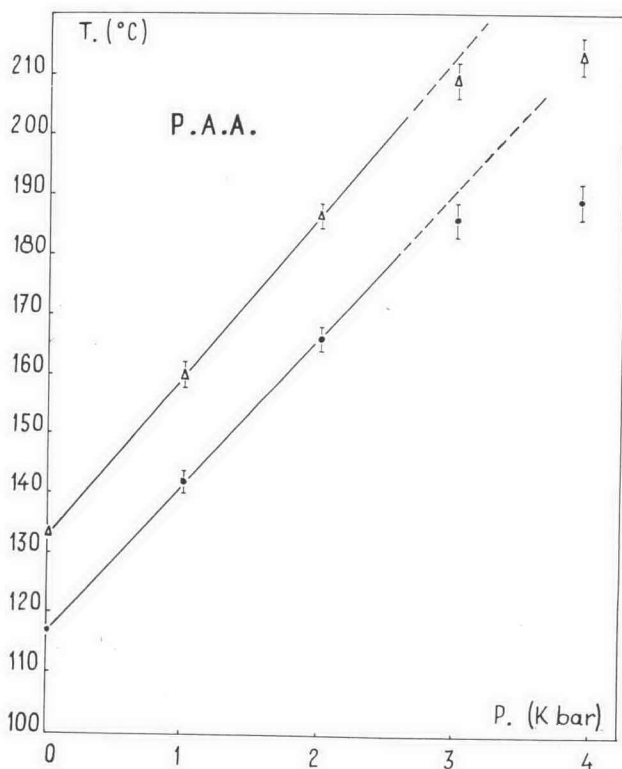


Figure 1. Variation with pressure of the temperatures of the solid-nematic (dots) and nematic-isotropic (triangles) transitions in T , P . The slopes are roughly coherent with other existing thermodynamic data, if one applies the Clausius-Clapeyron equation (see Table 2). The non linearity above 3 kb is due to thermal degradation of the sample: the points at 4 kb are not significant

TABLE 1

	Slope of solid-nematic transition line: $\frac{dT_M}{dP}$	Slope of nematic-isotropic transition line: $\frac{dT_c}{dP}$
G. A. Hulett ⁽⁷⁾	32°/kbar up to 300 bars	48.6°/kbar up to 300 bars
G. Puschin and W. Grebenschtschikov ⁽⁸⁾	25.6°/kbar up to 2 kbar	39.4°/kbar up to 1 kbar
J. Robberecht ⁽⁹⁾	32°/kbar up to 850 bars	48°/kbar up to 935 bars
This work	a) 24.5°/kbar up to 3 kbar b) 23.7°/kbar up to 3 kbar ⁽¹⁰⁾	27°/kbar up to 3 kbar 28.7°/kbar up to 3 kbar ⁽¹⁰⁾

TABLE 2

	Relative jump in specific volume at melting point $\left(\frac{\Delta V}{V}\right)_M$	Relative jump in specific volume at clearing point $\left(\frac{\Delta V}{V}\right)_c$
W. Maier and A. Saupe ⁽¹⁸⁾		0.30% 0.35% "extrapolated" value
E. McLaughlin, A. Shakespeare and R. Ubbelohde ⁽¹¹⁾	11.03%	0.36%
	Latent heat at melting point: $(\Delta H)_M$	Latent heat at clearing point: $(\Delta H)_c$
R. Schenck ⁽¹²⁾		735 joules/mole
C. Kreutzer and W. Kast ⁽¹³⁾		1730 joules/mole
H. Arnold ⁽¹⁴⁾		600 joules/mole
I. G. Chistyakov ⁽¹⁵⁾	29.570 joules/mole	574 joules/mole
E. M. Barral, R. S. Porter and J. F. Johnson ⁽¹⁶⁾	30.200 joules/mole	735 joules/mole
L. C. Chow and D. E. Martire ⁽²⁰⁾		760 joules/mole
This work, from Clausius-Clapeyron equation	a) 35.000 joules/mole b) 36.000 joules/mole ⁽¹⁰⁾	1.080 joules/mole 1.000 joules/mole ⁽¹⁰⁾