

***PVT* and DTA Measurements on trans-4-*n*-Hexyl-(4'-Cyanophenyl)-Cyclohexane (6PCH) up to 300 MPa**

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The phase diagram of trans-4-*n*-hexyl-(4'-cyanophenyl)-cyclohexane, (6PCH) has been established by high-pressure differential thermal analysis. Specific volumes are presented for temperatures between 300 and 370 K up to 300 MPa. The p , V_m , T data have been determined for the nematic, isotropic, and (partly, in the neighbourhood to the melting curve) solid phases. Volume and enthalpy changes along the phase transitions have also been calculated. As previously, the p , V_m , T data were used to calculate the volume entropy for the nematic-isotropic transition. The molar volumes along the clearing line $T_{NI}(p)$ enabled us to calculate the molecular field parameter $\gamma = \partial \ln T_{NI} / \partial \ln V_{NI}$, being 4.1.

Key words: 6PCH; High Pressure; pVT ; Phase Transitions; Thermodynamics.