

# **The Influence of Molecular Form on Thermodynamic Properties and on the Equation of State of Liquid Alkanes**

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We present the results of experimental investigation of thermophysical properties for groups of liquid hydrocarbons with similar molecular structure. The PVT data for investigated liquids were measured in the range of temperature from 313 K to 413 K and in the range of pressure from 0.1 to 245.2 MPa. The molecular structure was investigated by MoK $\alpha$  X-ray scattering method and also found in literature. The PVT data were used to obtain the equation of state for all investigated liquids. We analyzed the influence of molecular form on investigated thermophysical properties, the equation of state parameters, and on the energy of molecular interaction.