

## **Phase Equilibria and PVT Properties for Binary 0.1102 N-Pentane + 0.8898 Water System**

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Investigations of the PVT properties of the binary 0.1102 n-pentane + 0.8898 water system were made in the range of temperatures ( $T$ ) 305.85-679.56 K, densities ( $\rho$ ) 63.3-443.0 kg/m<sup>3</sup> and pressures ( $P$ ) up to 60 MPa with a piezometer of constant volume. The experiment is carried out along 9 isochores.

The dependence of pressure  $P(T)$  along isochores, the points of inflection and breaks relevant to liquid-liquid and liquid-vapor phase transitions are observed. Values of the temperatures of the points of inflections and breaks of the curves of phase equilibria for liquid-liquid and liquid - vapor transitions in coordinates of  $T(\rho)$  are constructed.

The lines of phase equilibrium were described with the help of scaling equations. The Redlich-Kwong cubic equation of state has been used to represent the experimental PVT-data.

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