

Acoustic and Thermodynamic Properties of Binary Liquid Mixture N-Heptane + Isooctane

Vagif Hasanov^{C,S}

*Department of Heat and Refrigeration Techniques, Azerbaijan Technical University, Baku, Azerbaijan
vgasanov2002@yahoo.com*

This paper deals with experimental results for the speed of sound in liquid binary n.heptane+isooctane mixtures and the calculation of thermodynamic properties at temperatures from 298.15 to 523.15 K and at pressures up to 60 MPa. The speed of sound has been obtained using a method of direct time measurement of an impulse traveling through the investigated medium in the temperature range 298.15-523.15 and pressure 0.1-60 MPa and concentrations 0-100 %. The pressure was measured by dead weight gauge manometers. The temperature was measured by platinum-resistance thermometer. Mixture composition was prepared by a weight method and was kept under control by chromatography analysis before and after measurements. The error of the experimental data does not exceed 0.08 %.