

**THERMOPHYSICAL PROPERTIES OF SYSTEM  
HIGH-MOLECULAR ORGANIC CONNECTION  
(ROCK-OIL) - WATER-SCF SOLVENT**

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The current trend in petroleum-refining industry this use heavy rock-oil. Because of higher maintenance of heteroatoms, asphalts and metals, and also more quantities of not divided hydrocarbons, it is more difficult to process it.

Problems of rational use and processing of difficultly taken stocks high-viscosity rock-oil and natural bitumens cannot be solved without introduction of a wide spectrum of modern technologies of extraction and processing.

On this background all become more actual than a problem of rational use and processing of difficultly taken stocks, such, as high-viscosity rock-oil and natural bitumens. These problems cannot be solved without introduction of modern technologies of extraction, such as steam, cold extraction, with use of solvents and catalysts, and also processings of hydrocarbonic raw materials with application supercritical fluid (SCF) technologies.

Thermophysical properties heavy rock-oil and bitumens are the necessary initial data for working out, designing of technological processes, the actions connected with their manufacture, transportation and oil refining. Knowledge of phase behaviour is necessary for working out and optimisation of technological processes of oil refining, thermophysical properties (for heat conductivity, a thermal capacity, density, viscosity and structure) both rock-oil and fractions, and their mixes with solvents. In researches in this direction are engaged much enough, it and works on phase equilibria, to structures and properties.

The purpose of the present research is reception of the new data on thermophysical properties high-viscosity rock-oil of the Ashalchinsk deposit of the Republic of Tatarstan .

Research thermophysical properties (thermal capacity) of systems of heavy rock-oil and water-rock-oil emulsionvarious concentration - SCF (propane-butane) are spent in the range of temperatures 343K-474K and pressure in a range 4,9-29,4 MPa. The system thermal capacity has been measured on scanning adiabatic calorimeter.

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