

## **GEOCHEMISTRY OF LOW-BOILING HYDROCARBONS FROM OILS OF THE NORTHERN MIDDLE OB REGION (WEST SIBERIA)**

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The Jurassic and Neocomian oils of the Northern Middle Ob Region of the West Siberian Petroleum basin have been studied in the work. It has been established that an extensive and detailed information on oil nature is encoded in the composition of the West Siberian low-molecular oils that allows their division into kingdoms (marine and non-marine) and families. Cluster analysis was used as the mathematical tool to analyse "the genetic code" enciphered in oil composition. Oils from the Lower-Middle Jurassic non-marine oil source rock formations (one family) were derived from the organic matter of higher land plants and lake basins (Type III) and possess a number of specific features: higher cyclane concentration in the C5-C8 hydrocarbon fraction, a sharp dominance of cyclohexanes over cyclopentanes; high content of aromatic hydrocarbons in the C5-C8 hydrocarbon fraction; high (2.0) pristane/phytane ratios. Typical marine oils (three families) were mainly derived from aquagene, planktonic and bacterial organic matter of the Upper Jurassic Bazhenov Formation (Type II). The oils of deep-sea oil source rock facies are characterized by the following features: higher concentrations of cyclopentanes and lower concentrations of cyclohexanes in the C5-C8 hydrocarbon fraction; low hexane concentrations and high dimethylcyclohexane concentrations in % per hexane fraction; low concentrations of aromatic hydrocarbons in the C5-C8 hydrocarbon fraction; higher values of m-xylene/o-xylene ratios; low (about 1.00) pristane/phytane ratios.