

Correlation between NMR parameters and performance of bitumen. Role of structure ordering

Kashaev R., Kemalov A., Diyarov I., Fakhrutdinov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Parameters of nuclear magnetic relaxation (spin-spin relaxation times, corresponding proton concentrations P_i) have been measured for initial and oxidized bitumen from Tatarstan oils. It is shown that pulse nuclear magnetic resonance method allows to analyze the bitumen composition by phases with different molecular mobility of hydrocarbons and proton concentrations P_i .
