

Magnetic Resonance of Porous Media

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NMR has become an important technique for characterization of porous materials in recent years. In particular, its importance in petroleum exploration has been increased by the recent progress in NMR well-logging. The continuous rise of global demand for energy and the difficulty of significantly increasing production capacity have made such oil reservoirs much more attractive. This talk will outline the MR technical development and their applications in the study of pore structure, rock heterogeneity, composition and molecular dynamics of crude oils, and biological materials. Specific topics include two-dimensional NMR, internal magnetic fields, MRI of rocks, and the diffusion physics.