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Nota di contenuto	Modelling and Simulation of Structure, Thermodynamics, and Transport of Fluids in Molecular Confinements -- Structure-Mobility Relations of Molecular Diffusion in Interface Systems -- Diffusion in Channels and Channel Networks. - ¹³ C NMR Studies of Zeolites -- Paramagnetic Absorption Complexes in Zeolites as Studies by Advanced Electron Paramagnetic Resonance Techniques -- Study of Conformation and Dynamics of Molecules Absorbed in Zeolites by ¹ H NMR -- Molecular Dynamics of Liquid in Confinement -- Liquid Crystals in Confining Geometries -- Surfaces and Interfaces of Free Standing Smectic Films -- Pattern Formation in Langmuir Monolayers Due to Long Range Electrostatic Interactions -- Characterization of Floating Surface Layers of Lipid and Lipopolymers by Surface-Sensitive Scattering -- Studying

Lyotropic Crystalline Phases Using High-Resolution MAS NMR Spectroscopy- NMR Studies of Cartilage-Dynamics, Diffusion, Degradation.

Sommario/riassunto

The study of the interaction of molecules with surfaces and interfaces is of great importance for the understanding of adsorption and catalysis on solid surfaces, the complex properties of molecules on fluid interfaces and the relationship between structure and functionality in macromolecular biological systems. It is the aim of this volume to present and analyse in a comprehensive and accessible way the methodical achievements and the recent progress in this field. The broadness of both scope and selection of the topics should help in particular non-expert readers to become familiar with this exciting field of research.