

Fundamental Challenges in Molecular Modeling of Electrowetting

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Interfacial phenomena play a determining role in macroscopic behavior of complex materials systems and devices. Interfacial properties can often be manipulated by the application of external fields. The talk will review our recent simulation advances toward understanding on a molecular scale how one can control ion adsorption to hydrophobic surfaces in electric fields, salt partitioning, wetting free energy, and dynamic responses in electrically controlled systems.