

Colloidal Particles at Interfaces: From Fundamentals to Applications

To NGAI

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Particles at interfaces has encountered in many industrial products and processes such as crude oil recovery, antifoam formulations, and mining flotation. Therefore, the study of particles trapped at interfaces has recently become an established area in colloidal and surface science. In this talk, I will focus on our recent works that involve the behavior of colloidal particles residing at both oil-water and air-water interfaces. I will also demonstrate new materials such as colloidal capsules and foams that can be prepared from particles at interfaces and discuss the ensuing applications including interfacial catalysis and producing lightweight insulating materials.