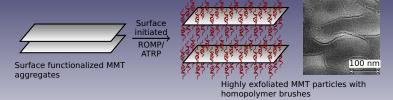
Thermodynamics of Layered-Silicate/Block Copolymeric Nanocomposites via Self-Assembly

Eric W. Cochran

Chemical and Biological Engineering, Iowa State University, Ames, IA 50011

• We are investigating a new class of materials in which fully exfoliated montmorillonite nanocomposites are prepared by kinetically controlled surface initiated living polymerizations



Block copolymer brushes grown from the montmorillonite surface self assemble into a fascinating array of structures with large length scales, governed by the clay particle stiffness, dense confinement of chain ends to particle surface, as well as traditional chain stretching and segment-segment interactions.

