

SCIENCE SEMINAR

Thursday, November 1 - Carson Taylor 322

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“Clay Nanotubes as Objects for Interfacial Self-assembly and Catalyst Supports”

Naturally occurring halloysite clay with unassuming appearances of plain white dust has come up as a biocompatible and inexpensive material for myriad applications. Using a quick and fast approach like self-assembly for the widely available material enhances the possibility to translate to large scale utilization. Self-assembly has been employed to design solutions for oil spill bioremediation, bacterial storage, micro-patterns for cell-capture to even hair color formulations which can color hair from a water dispersion in under 5 minutes. Being an aluminosilicate clay, halloysite tubes are a natural candidate to immobilize solid metal and metal oxide catalysts. The hollow lumen of the nanotubes has been used not only as storage for the catalyst nanoparticles, but also as sites for in-situ synthesis of metal oxides. The talk will summarize our efforts to achieving smart and sustainable technologies using halloysite clay nanotubes.

Come at 3:30pm for refreshments, speaker at 4:00pm