Physical Seminar

Monday, December 7, 4:00 pm

Virtual Event

Alina Schimpf

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"*Solution-phase routes to inorganic solid-state materials*"

Abstract: This talk will cover research being conducted in the Schimpf Lab, which focuses on solution-phase syntheses of inorganic solid-state materials. The talk will contain two parts: colloidal semiconductor nanocrystals and cluster-based coordination assemblies. In the first part, I will discuss the use of colloidal synthesis to access metastable phases of transition metal dichalcogenide nanocrystals. Specifically, coordinating ligands can be used to modulate precursor reactivity, allowing the synthesis of metastable phases and unique heterostructures. In the second part of the talk, I will present the use of polyoxometalates as building-blocks for all-inorganic coordination networks. Assembly of these anionic clusters with transition-metal or lanthanide cations is used to synthesize new metal oxide frameworks with widely tunable compositions and architectures. Factors directing the framework assembly as well as the role of cluster and cation building-blocks in dictating framework properties will be discussed.

Zoom Meeting: https://rochester.zoom.us/meeting/register/tJYtduurrjkjHNNZTiUcb34gOJ9KXsWCccp7

*Registration is enabled. Register to receive the Zoom link via email

Website: https://events.rochester.edu/event/chemistry_physical_seminar_schimpf

Host: Professor Kathryn Knowles • Email: knowles@chem.rochester.edu