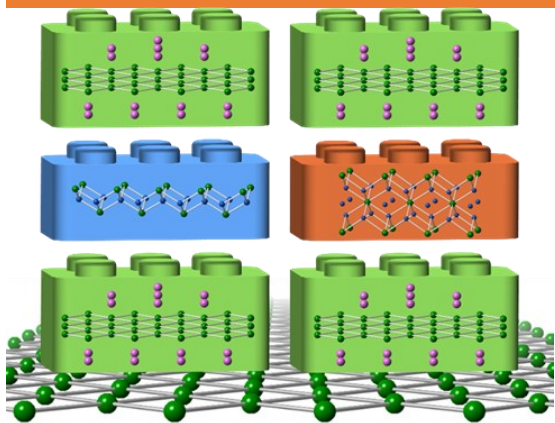


INORGANIC SEMINAR

“Adventures in Solid State Synthesis:
Hidden Gems to Link Materials’ Properties”

Professor Julia Chan

University of Texas—Dallas
Department of Chemistry &
Biochemistry



Monday, November 5th, 4:00 pm
473 Hutchison Hall
University of Rochester
Department of Chemistry

Abstract:

The discovery and characterization of novel intermetallic compounds is important for broadening the understanding of structure-property relationships of magnetic materials. Our current research interests in superconductivity and unusual magnetism rely heavily on the intimate relationship between structure and physical properties. Likewise, the determination of anisotropic physical properties from high quality single crystals is vital in probing the intrinsic electrical and the competing magnetic interactions to understand the chemistry and physics of these materials. The discovery of novel magnetic and electronic properties in low-dimensional materials has led to the pursuit of hierarchical materials with specific substructures. Low-dimensional solids are highly anisotropic by nature and show promise in new quantum materials leading to exotic physical properties not realized in three dimensional materials. In this talk, I will highlight the crystal growth, characterization, and properties of germanides and stannides and layered antimonides and the potential for compounds in reduced dimensions.

Host: Professor Kara Bren • email: bren@chem.rochester.edu



