

# CHEMISTRY COLLOQUIUM

Guest Speaker:

**Professor Daniel R. Gamelin**

University of Washington, Seattle

Department of Chemistry

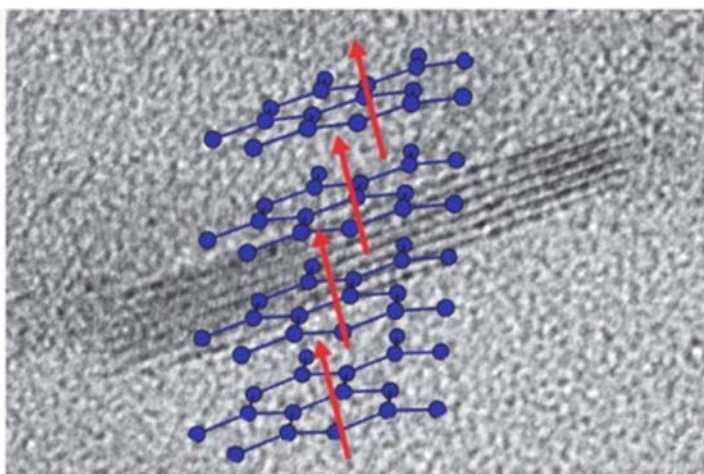
Wednesday, February 12, 12:00pm

Hutchison Hall Room 140

Lander Auditorium

University of Rochester

Department of Chemistry



## Title: “Dopants, Defects, and Unique Physical Properties in Colloidal Semiconductor Nanocrystals”

**Abstract:** Nanoscale semiconductors play central roles in many current and next-generation photonic and energy technologies. This talk will describe some recent advances from our group in the synthesis and spectroscopic study of inorganic nanocrystals displaying unique physical properties that may define their future technological potential. A central goal of this research pertains to harnessing the power of impurities or other defects to control the physical properties of many inorganic crystals, a control that most semiconductor technologies including transistors, diodes, and solar cells rely upon. Other interesting physical characteristics including emergent magnetic properties resulting will be described, and potential applications of these materials particularly for solar spectral conversion will be discussed.

**Host:** Professor Katheryn Knowles, email: [kknowles@ur.rochester.edu](mailto:kknowles@ur.rochester.edu)