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Department of Chemistry

Special Seminar

4 p.m. Wednesday, October 1 • 331 Smith Hall



Assistant Professor

Matthew Whited

Department of Chemistry
Carleton College

*Exploiting Metal/Ligand Cooperation with Cheap (Si)
and Expensive (Rh) Elements*

Research interests: organometallic and inorganic synthesis, kinetics of chemical reactions, physical inorganic and photochemistry, and the chemistry of energy.

Website: <http://apps.carleton.edu/profiles/mwhited/>

Abstract

The coordinative and redox flexibility of organosilicon ligands makes them ideal candidates for exploring new cooperative small-molecule-activation pathways. In this talk, I will present recent findings from our laboratory using new and old families of silicon-based ligands for cooperative bond-forming and bond-breaking reactions at late transition metals with applications in organic synthesis and transformation of petroleum feedstocks. In particular, I will examine a variety of nitrogen-atom and nitrene-group-transfer reactions facilitated by metal silylamides as well as cooperative processes occurring at late-metal silyl and silylene complexes supported by rigid pincer-type ligands.

Host: Professor Connie Lu