INORGANIC SEMINAR

"Understanding the Mechanism of Nitrogen Fixation using Low-Coordinate Iron Complexes."

Prof. Patrick Holland
University of Rochester

Abstract:
Iron plays a central role in the large-scale reduction of dinitrogen to ammonia by nature (nitrogenase enzymes) and by industry (Haber-Bosch process). Despite intense research, the catalytic mechanisms and the role of iron have remained a mystery. This seminar will describe how advances in the synthesis of low-coordinate iron coordination compounds have led to iron complexes with weakened nitrogen-nitrogen bonds. Manipulation of the supporting ligands has now enabled the first N-N bond cleavage and ammonia formation using iron complexes. The results help chemists to identify potential active sites of the catalytic dinitrogen reduction reactions, through characterization of elementary steps in the conversion of dinitrogen to ammonia.

Wednesday, January 18th, 2012

3:30 PM ROOM 1315 CHEMISTRY

IF YOU WISH MORE INFORMATION PLEASE CALL THE INORGANIC OFFICE AT 262-6815.

Refreshments will be available at 3:15 p.m. outside of the seminar room setup by Tristan Brown. Thanks Tristan!