



Inorganic Chemistry Seminar Series

Tuesday, February 28, 2017, 12:30 pm

Seaver Science Library, Room 150

SSC Auditorium next to the library

Professor Thomas Rauchfuss

Department of Chemistry

University of Illinois at Urbana-Champaign

Organometallic Perspectives on the Hydrogenase Enzymes

Abstract:

In the hydrogenases, Nature employs organometallic reaction centers for the production and oxidation of H₂. These systems rival or exceed platinum as catalysts for transformations relevant to new energy producing systems.

Synthetic models for the active sites provide several insights how these enzymes function. Some themes to be discussed include: *proton relays*, *mixed valency*, and *regiochemistry of metal hydrides*. These topics will be presented in the context of my research program that focuses on synthetic organometallic chemistry. Included will be latest information on artificial maturation with modified active sites, shedding further light on the non-observation of M-H intermediates by biophysical studies.

Hosted by Professor Smaranda Marinescu

The scientific community is invited

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