WED., NOVEMBER 9, 2016, 12:00 PM
HUTCHISON HALL, ROOM 140
LANDER AUDITORIUM
UNIVERSITY OF ROCHESTER
DEPARTMENT OF CHEMISTRY

Abstract:
In the hydrogenases (H₂ases), Nature employs organometallic reaction centers for the production and oxidation of H₂. Three classes of enzymes are implicated: Fe-H₂ases, FeFe-H₂ases, and NiFe-H₂ases. All feature similar organometallic active sites. These catalysts are pervasive and important.

The main question to be discussed is: how does Nature deal with H⁺ and H₂ as substrates. Organometallic models provide probably the clearest insights into how these enzymes work. Models and the enzymes, at least in the case of the FeFe-H₂ases, have recently converged completely, as will be discussed.

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