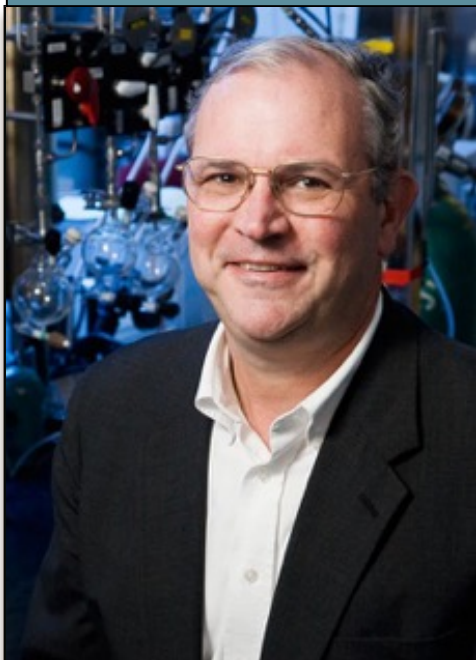
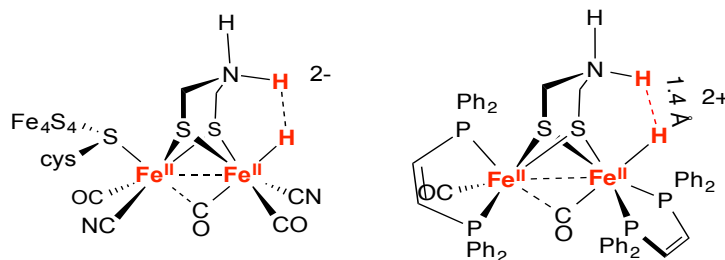


CHEMISTRY COLLOQUIUM

How Hydrogen is Made Naturally



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



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Abstract:

In the hydrogenases (H_2 ases), Nature employs organometallic reaction centers for the production and oxidation of H_2 . Three classes of enzymes are implicated: Fe- H_2 ases, FeFe- H_2 ases, and NiFe- H_2 ases. 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 H_2 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- H_2 ases, have recently converged completely, as will be discussed.

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