



UNIVERSITY OF MINNESOTA  
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# Department of Chemistry

## *Special Seminar*

4:30 p.m. Wednesday, October 10 • 331 Smith Hall



Associate Professor

### **Akif Tezcan**

Department of Chemistry and Biochemistry  
University of California, San Diego

### *New Inorganic Paths in the Biological Jungle*

Research interests: focus on the elucidation of metal-catalyzed biological redox reactions, and the control of biological self-assembly through coordination chemistry.

Website: [http://www-chem.ucsd.edu/faculty/profiles/tezcan\\_faik\\_a.html](http://www-chem.ucsd.edu/faculty/profiles/tezcan_faik_a.html)

### **Abstract**

All cellular functions, including many that are centered on metal ions, necessitate the assembly of sophisticated protein architectures from smaller proteins or protein subunits. Despite the obvious need, there is, however, no readily accessible synthetic method that allows the use of proteins as building blocks for higher-order, functional architectures. Toward this goal, our group has developed strategies for directing the self-assembly of proteins through controlled metal coordination on protein surfaces. These strategies have led to a diverse set of nano- and microscale biomaterials and new metalloenzymes, and provided insights about how nature itself may utilize similar strategies for the evolution of functional proteins.

Host: Professor William Tolman