

Friday, November 7, 2008

Ferman Chavez Developes a Model System for the Enzyme Urease

Metalloproteins are proteins that contain a metal **cofactor**. One metalloprotein, **urease**, contains the metal Nickel and catalyzes the hydrolysis of urea into carbon dioxide and ammonia. It is present in some plants and bacteria, and has several **medical applications**. Often when trying to understand fundamental properties of a complex molecule like urease, it is best to use a simplified model system. In the September, 2008 issue of **Inorganic Chemistry Communications**, Associate Professor **Ferman Chavez** and his team in the **Department of Chemistry** reported how to make one such model in their paper **Synthesis, Structure, and Magnetic Properties of a New Binuclear Ni(II) Complex Supported by 1,4,8-Triazacycloundecane** (volume 11, pages 1023-1026). First author Piotr Pawlak is an Oakland University graduate student in the **Biomedical Sciences: Health and Environmental Chemistry** PhD Program. Chavez, a **bioinorganic chemist**, holds a prestigious **CAREER Award** from the **National Science Foundation**.

SUMMARY

Metalloproteins are proteins that contain a metal cofactor. One metalloprotein, urease, contains the metal Nickel and catalyzes the hydrolysis of urea into carbon dioxide and ammonia.

Created by Brad Roth (roth@oakland.edu) on Wednesday, March 11, 2009

Modified by Brad Roth (roth@oakland.edu) on Thursday, March 12, 2009

Article Start Date: Wednesday, March 11, 2009