

Estimados compañeros, colegas y alumnos:

Durante la semana del 19 al 23 de mayo disfrutaremos de la visita de Bob Hanson a la UAH. El Dr. Hanson es profesor de química y de química orgánica en el St. Olaf College y además durante los últimos 8 años ha sido el principal responsable del desarrollo del programa **Jmol** para la visualización de estructuras moleculares en 3D.

Durante su estancia, tendremos dos presentaciones en las que Bob nos hablará de algunas funcionalidades añadidas recientemente a Jmol y en especial de dos aplicaciones muy interesantes en docencia e investigación. Os animo a que hagáis lo posible por asistir y difundáis esta información.

Robert M. Hanson

Larson-Anderson Professor of Chemistry
Chemistry Department, St. Olaf College, Northfield, MN, USA
<http://www.stolaf.edu/people/hanson>



Robert Hanson is the Edolph A. Larson and Truman E. Anderson Sr. Chair of Chemistry and currently serves as chair of the St. Olaf College Chemistry Department.

He joined the St. Olaf faculty in 1986 after earning a B.S. from the California Institute of Technology, a Ph.D. from Columbia University, and completing postdoctoral work at the Massachusetts Institute of Technology.

Over the course of his career, Hanson has been the recipient of many awards and grants from organizations that include the National Science Foundation, the National Institutes of Health, the Research Corporation, the American Chemical Society, DuPont, Eli Lilly, and the W.M. Keck Foundation. He has also earned a Magnus the Good Award from St. Olaf and has twice served on the college's curriculum committee and as an alumni liaison.

Hanson has published numerous articles in the areas of chemistry, material science, informatics, and mathematics, as well as two books: *Molecular Origami: Precision Scale Models from Paper* and *Introduction to Molecular Thermodynamics*. He is the co-inventor on one patent titled *Catalytic Asymmetric Epoxidation* (with K. Barry Sharpless, who received the Nobel Prize in Chemistry in 2001).

Since 2006 Hanson has been the project leader and principal developer for the Jmol Molecular Visualization Project, a global open-source interdisciplinary effort to develop novel web-based capabilities for the visualization of molecular structure and energetics. Applicable in a wide range of fields, the Jmol applet can be found on thousands of websites, including the Protein Data Bank. In 2010 Jmol became part of an exhibit on nanotechnology in the Innoventions pavilion at the Walt Disney Epcot theme park, where more than 300,000 visitors have interacted with it. The exhibit has also been duplicated at Disneyland, where it will run through September 2012.

At St. Olaf, Hanson primarily teaches organic chemistry and has worked to further the college's green chemistry curriculum. He also developed the Interim course *Medicinal Chemistry in Jamaica: An International Perspective*, which brings students to the University of the West Indies in Kingston, Jamaica, every other year for an in-depth look into how drugs work and how they are designed and developed, with a particular focus on the interactions of culture, traditional healing, and pharmaceutical medicine.

Miércoles, 21 de mayo de 2014, 11.30 h

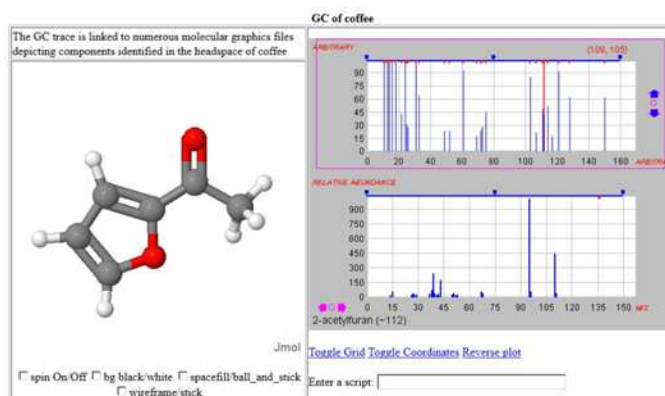
Aula de Grados de la Facultad de Farmacia

Prof. Robert M. Hanson; St. Olaf College, USA

***Molecular visualization in the age of international connectivity:
Easy-to-use connection between chemical structure and spectra for
teachers and students.***

Abstract:

We are entering a new age of connectivity often referred to as “cloud computing”, where multiple processes in far-off lands are coupled to accomplish tasks of local interest. In this presentation I will show how a collaboration between the University of the West Indies and St. Olaf College is changing the way students, educators, and researchers access and utilize molecular structures and spectra by tapping into rich resources in several different countries. This work is already having an impact in several areas, including general, organic, inorganic, and physical chemistry as well as biochemistry and molecular biology.



Jueves, 22 de mayo de 2014, 11.30 h

Aula de Grados de la Facultad de Farmacia

Prof. Robert M. Hanson; St. Olaf College, USA

***Innovative molecular visualization in biochemistry and pharmacology:
Using surfaces to depict contacts and interactions.***

Abstract:

The visual depiction of drug-receptor interactions has been a great challenge for students, teachers, and authors alike. There is no single magic solution to this complex issue. In this presentation I will illustrate several innovative features of Jmol and how they can be used to rapidly explore binding pockets and other drug-receptor issues.

