Department of Chemistry

Welcome new Faculty

Professor Alan van Giessen (right) joined the department Fall 2013.
Dr. Kyle Broaders (below) to teach beginning Fall 2014

Inaugural year for the MHC Chemistry and Biochemistry Club

2013-2014 Lucy Pickett Lecture

Professor Alan van Giessen rejoins chemistry department
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Recent publications and presentations
Recapping the Chemistry and Biochem Club’s first year
2013-14 Awards Presentation
Congratulations to class of 2014!

Professor Melanie Sanford of the University of Michigan visits Mount Holyoke College as 2013-2014 Lucy Pickett Lecturer
The 2013-2014 Lucy Pickett lecturer was the distinguished Professor Melanie Sanford of the University of Michigan. Professor Sanford received her undergraduate degree from Yale University in 1996 and her PhD in 2001 from the California Institute of Technology. She began her independent career as an Assistant Professor at the University of Michigan in 2003. With her exceptional success as a professor and researcher she has earned many titles for teaching and for her contribution to the field of synthetic organic chemistry. Professor Sanford presented on “Recent Developments in Transition Metal Catalyzed C-H Bond Functionalization”, which is one of her research expertise on new methods for the oxidative functionalization of carbon-hydrogen bonds.

The Origins of Lucy Pickett Lecture

The Lucy Pickett lectureship was established in honor of distinguished Mount Holyoke College Chemistry professor Lucy Pickett in 1968 after her retirement. Lucy Weston Pickett was a Massachusetts native and a 1925 graduate of Mount Holyoke College. She earned a Doctorate from the University of Illinois and taught there and then at Goucher College before returning to Mount Holyoke as a faculty member in 1930. Her research in X-ray crystallography and ultraviolet absorption spectroscopy of organic molecules received numerous honors including American Chemical Society's Francis P. Garvan-John M. Olin Medal.

The Lucy Pickett lectureship now acknowledges outstanding women scientists and brings distinguished speakers to the College to inspire young women in chemistry.
Professor Alan van Giessen rejoined the Mount Holyoke College Chemistry Department beginning in the fall of 2014. Professor van Giessen worked at Mount Holyoke before from 2005-2008 first as a laboratory instructor and then as visiting assistant professor. He rejoined Mount Holyoke after some time at Hobart and William Smith Colleges. Professor van Giessen teaches a wide range of courses including both general chemistry and physical chemistry. This coming fall he will be teaching a much anticipated seminar course entitled “Poisons: Death by Chemistry”. For his research, van Giessen uses theoretical and computational techniques to understand the structure and thermodynamics of both complex and simple systems. One area of research includes studying the destabilization of a test protein and its potential to provide a mechanism for nucleating misfolded aggregates complicit in diseases such as Alzheimer’s Disease and Huntingon’s Disease. A second area of focus is the energetic properties of curved interfaces, such as liquid drops or micelles. Both projects are supported by research grants from the American Chemical Society ($50,000) and Research Corporation ($35,000).

Dr. Kyle Broaders will be joining the chemistry department beginning in fall 2014. Dr. Broaders received his undergraduate degree from Swarthmore College in 2006 and his doctorate from the University of California, Berkeley in 2011. His research is in the interface of biology and chemistry. This fall he will be offering CHEM 160, introduction to Biology and Chemistry.
Recent publications, presentations

Research performed by Fan-Jean Liu is now published. “Maria A. Gomez and Fan-Jean Liu, “Protons in Al doped BaZrO3 escape dopant traps to access long range proton conduction highways,” Solid State Ionics, 252, 40 (2013”).


*The research is funded by National Science Foundation-MRI and –RUI grants ($385,000), Cottrell College Science award ($75,000).

Lanhe Zhang (above) and Ha Xu (below) recently published their research work done with Prof. Wei Chen * (http://www.mtholyoke.edu/~weichen/) and other faculty members from sciences.


*Prof. Wei Chen’s research group is funded by the National Science Foundation, “RUI: Stabilization of Gold Nanoparticles in Solution by Poly(vinylalcohol) Adsorption,” $176,211.

Prof. Alan van Giessen and Prof. Kathryn McMenimen presented posters together with their research students at various meetings.


“Design and synthesis of artificial small heat shock proteins”, Kathryn McMenimen, Hanna Arbach, Sarah Fleming, Annual

Elizabeth Deleon (Prof. Megan Nunez research group), Akchheta Karki (top, left). Jacquelyn Boudle (top, right) (Prof. Darren Hamilton research group*, http://www.mtholyoke.edu/~hamilton/dgh.html), and Barsha Shrestha (bottom) (Himali Jayathilake research group) presented posters at ACS undergraduate research symposium, April 26, 2014.

*Prof. Daren Hamilton research group is funded by National Science Foundation, “RUI: Directed Molecular Architectural Assembly via Dynamic Covalent Chemistry,” $190,149.
The Chemistry and Biochemistry Club encourages students to nurture and share their appreciation of these subjects through casual presentations and group discussions. Additionally, the club organizes events featuring fun activities with educational value to generate interest in these fields within the general student population. With support and guidance from the chemistry department, they hope to promote cooperative learning outside the classroom.

Science Week
Spring 2014

In addition to mole day, the club organized science week stations to reach out to students not in the club.

(Right) Students have fun playing with ooblek and experience its non-Newtonian properties

(Above) Student poses with interactive Mole Day poster

(Left) Students decorate cookies with the symbol of their favorite chemical element
2013-2014 Awards

For Senior Majors:

RACHEL BROWN AWARD
Awarded annually to the outstanding chemistry or biochemistry major.
Lien Nguyen

AMERICAN CHEMICAL SOCIETY AWARD—CONNECTICUT VALLEY SECTION
Two awards, annually, one each to an outstanding chemistry major and biochemistry major.
Nell Maynard and Monica Chelliah

EDNA H. GRAHAM PRIZE
Awarded at the department’s discretion, to a chemistry major and a biochemistry major who give promise of continued professional activity in their discipline.
Jackie Boudle

ACS UNDERGRADUATE AWARD IN ANALYTICAL & INORGANIC CHEMISTRY
Awarded annually for demonstrated aptitude in analytical and inorganic chemistry.
Monica Chelliah

CHEMISTRY DEPARTMENT BOOK AWARD For someone dear to our hearts:
Awarded at the Department’s discretion in recognition of outstanding contributions to the life and work of the department.
Raquel Solis-Hernandez

For Juniors:

LOUISA STONE STEVENSON PRIZES
Awarded annually to students in their Junior year for excellence in chemistry, as determined by Grade Point Average and/or class rank.

CHEMISTRY DEPARTMENT TEACHING ASSISTANT AWARD
Andrea Goodman, Arda Kotikian

For Sophomores:

ALBERT WALTER AWARD FOR EXCELLENCE IN ORGANIC CHEMISTRY
Awarded annually to an outstanding scholar in organic chemistry.
Carolyn Bresnan, Leah Middleton, Ha Dang, Giulia Notarangelo

For First-year students (typically):

ALBERT WALTER AWARD FOR EXCELLENCE IN GENERAL CHEMISTRY
Awarded annually to an outstanding scholar in first year chemistry.
Alison Ochs and Clara Etsy

CRC Award: Shannon McCarley
The Class of 2014 Graduates

Allison Berger
Jacquelyn Boudle
Monica Chelliah
Kimberly Edwards
Angela Higgins
Emma Hughes
Maya Sayarath
Kirsten Schneider
Janice Shiu
Crystal Sosa
Christina Stathopoulos

The Sceptical Chymist website is a Mount Holyoke Chemistry Department initiative to provide a nexus of department news and events and an interactive database of current majors and alumnae. An annual newsletter showcases faculty and student accomplishments. An archive of guest lectures includes audio, pictures, and, sometimes, even PowerPoint presentations and video. The interactive database allows current majors and alumnae to update information such as where they are and what they are doing, the interests they have found and the institutions they are associated with, in an easy to view and search format.

Stay tuned for more updates!

Email pan23h@mtholyoke.edu for access.

URL: http://goo.gl/BmiaJn