

LEWIS & CLARK CHEMISTRY

2014

FACULTY NEWS

- Faculty Currently on Sabbatical
 - Anne Bentley
 - Off in Maryland learning new techniques for generating nano particles
- New Faculty Member (Fall 2013)
 - Casey Jones
 - Organic chemist
 - Specializes in surface chemistry

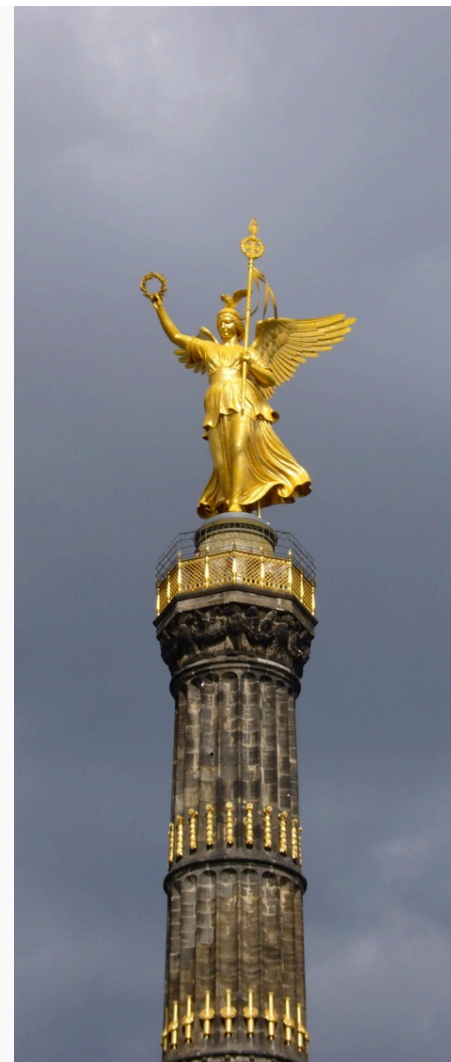


SPECIAL TOPICS CLASSES

- Chem 305: Aquatic Chemistry (Barb Balko)
- Chem 415: Nanomaterials Chemistry (Anne Bentley)
- Chem 421: Neurochemistry (Janis Lochner)
- Chem 443: Medicinal Organic Chemistry (Louis Kuo)
- Chem 464: Biomolecular NMR Spectroscopy (Niko Loening)

FALL 2015 BERLIN PROGRAM

- Overseas program designed for Chemistry and Biochemistry/Molecular Biology students
- Satisfies creative arts & international studies requirements
- Led by Nikolaus Loening
- For more information, see http://college.lclark.edu/programs/overseas_and_off-campus/programs/next/germany/Berlin/



RECENT GRANTS

- Louis Kuo awards a NSF-RUI Grant
 - “RUI: Combating Organophosphate Pesticides with New Molybdenum-based Catalysts in Water”
 - \$220,116 over three years
- Casey Jones awarded a Murdock Faculty Start-up Grant
 - \$30,000
 - Supports her research on synthesizing chemicals and attaching them to the surfaces of medical implants

NEW EQUIPMENT

- Rigaku MiniFlex 600 X-ray diffraction system
 - Used to characterize solid materials
 - Does not require single-crystal samples; can be used with powders
 - Benchtop system

MiniFlex



NEW EQUIPMENT

- Nicolet IS50 FT-IR
 - Useful for characterizing organic and inorganic molecules based on their vibrations
 - Includes grazing incidence analysis ability for looking at films



UPCOMING EQUIPMENT

- Horiba XplorRA Raman Microscope
 - Allows optical and Raman Detection
 - Useful for non-destructively characterizing the chemistry of surfaces
 - Coming Fall 2014!



NEW LABS

- Labs Renovated Summer 2013
 - Teaching lab for non-majors courses
 - Organic chemistry lab
 - Research lab for Casey Jones
 - Research lab for Julio de Paula

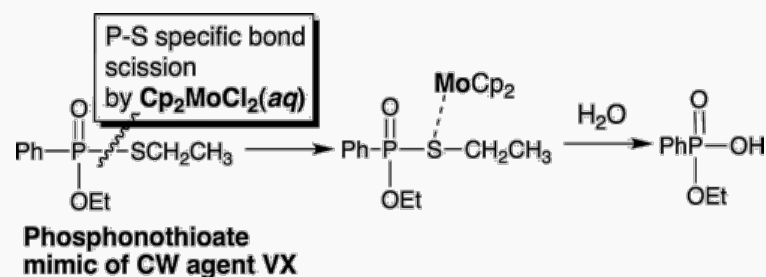


RECENT PUBLICATIONS

- **Louis Y. Kuo**, Devon C. Baker, Adria K. Dortignacq, Kristina M. Dill

“Phosphonothioate Hydrolysis by Molybocene Dichlorides: Importance of Metal Interaction with the Sulfur of the Thiolate Leaving Group”

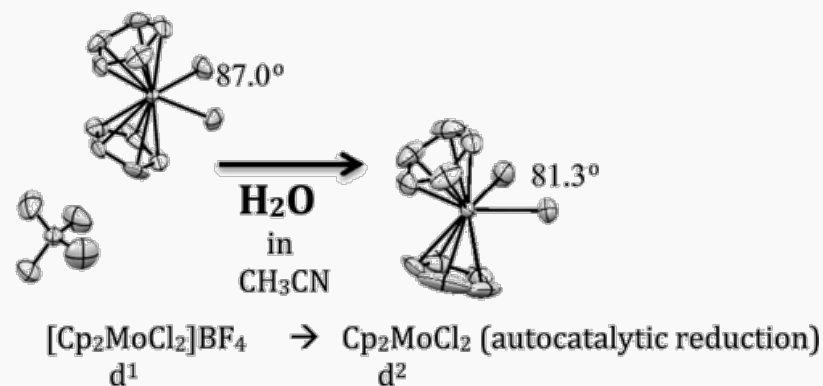
Organometallics **32**, 4759-4765 (2013).



- **Louis Y. Kuo**, Yusef A. Shari'ati, Edward J Valente

“Aqueous Chemistry of the Metallocene $[\text{Cp}_2\text{MoCl}_2]\text{BF}_4$: Evidence of Autocatalytic Molybdenum(V) Reduction in Water”

Organometallics **32**, 2902-2907 (2013).

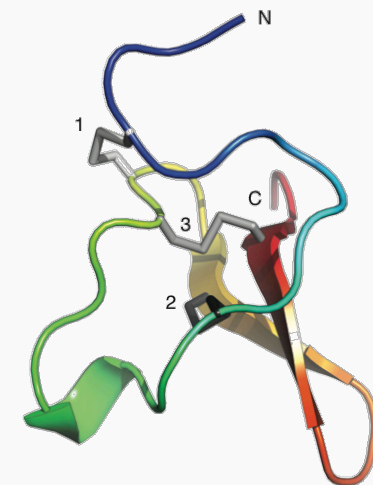
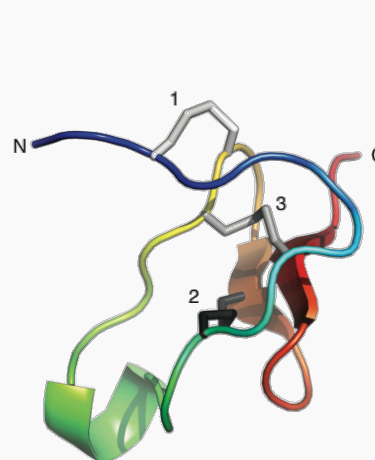
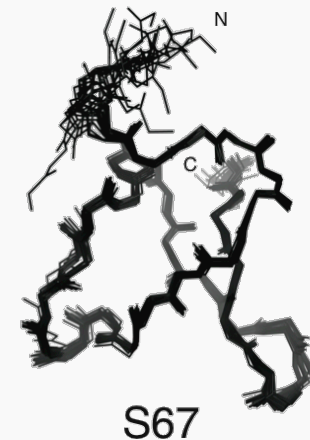


RECENT PUBLICATIONS

- **Nikolaus M. Loening,**
Zachary N. Wilson,
Pamela A. Zobel-Thropp,
and Greta J. Binford,

“Solution Structures of
Two Homologous Venom
Peptides From *Sicarius
dolichocephalus*”

PLOS ONE 8(1):
e54401. doi:10.1371/
journal.pone.0054401
(2013).



RECENT PUBLICATIONS

- Physical Chemistry

P.W. Atkins & **J.C. de Paula**

Oxford University Press
(10th Edition, 2014).

