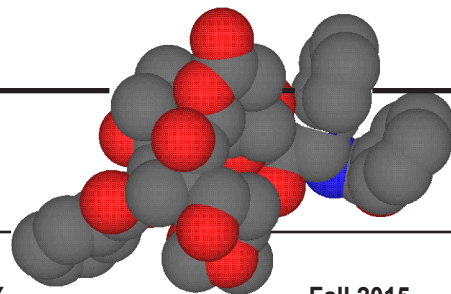


Molecules & Moles



Vol. XIX, No. 1

MISSOURI STATE UNIVERSITY

Fall 2015

DEPARTMENT OF CHEMISTRY

A NOTE FROM THE DEPT. HEAD



Alumni and friends of the Chemistry department,

To some extent, the theme of this edition of *Molecules & Moles* is the change from “old” to “new.” As you may know, Dr. Alan Schick (I’m not calling Alan old) has returned to the life of a full-time professor and now Graduate Program Director. We thanked Dr. Schick for his years of “cat herding” with an appropriate gift at our first faculty meeting of the fall semester. Since July, I have assumed the department head position. Some might call me old, since I started at MSU in 1999 as an assistant professor and worked my way up the ranks these past 16 years. But, I am also “new” in this role, and I look forward to the challenges and opportunities that come with this position.

We have new faculty, newly renovated spaces, and new accomplishments by our faculty and students. Please read on to see us brag and inform on each of those items. One I am particularly proud of relates to five of the names in the “News from Alumni.” Having been involved in chemistry teacher education since my arrival on campus in 1999, it pleases me greatly that in the past two years, we’ve graduated an excellent group of new chemistry teachers, and they all immediately found positions at good schools. Unfortunately, we have precious few chemistry education students in the major to replace them, and school districts are calling to ask for our graduates. If we want quality incoming students, we need quality high school teachers.

During the summer and into the fall, we have been dealing with construction. It has been challenging, but we are very pleased to have newly renovated teaching labs in biochemistry, general chemistry, organic chemistry, along with a new chemical stockroom. If you find yourself on campus in the near future, please stop by for a tour of the new facilities. For now, you will have to settle for a few pictures of those spaces in the upcoming pages.

We bid farewell to Dr. Shujun Su and thank him for his 22 years of service. May your harvests be bountiful Dr. Su! We also welcome new faculty members Dr. Fei Wang and Dr. Keiichi Yoshimatsu to Springfield. I am excited to work with both of these talented and eager new faculty to get them off to a successful start to their academic careers. You can read more about each of them within this newsletter.

I hope you all have a joyous upcoming holiday season with your families, friends, and all you hold dear.

Dr. Bryan Breyfogle

CHEMISTRY WALL OF FAME



Dr. Shujun Su earned a PhD from the University of New Hampshire in 1988. He began teaching at Missouri State in 1993 when it was Southwest Missouri State University.

For 22 years, he taught both general chemistry and physical chemistry courses. With great pride, we thank Shujun for his many years of dedicated service to MSU and to the community.

From Dr. Su, “*I wish you all well in both career development and in everyday life. Thank you.*”

In his spare time, Shujun enjoys gardening and spending time with his family, and we wish him much happiness during retirement.

PUBLICATIONS & PRESENTATIONS

Dr. Eric Bosch

(1) Eric Bosch, Nathan P. Bowling and Jeffery Darko “The power of non-conventional phenyl C-H•••N hydrogen bonds: supportive crystal-packing force and dominant supramolecular engineering force,” *Crystal Growth and Design*, **2015**, 15, 1634-1641.

(2) Rachel A. Thorson, Garrett R. Woller, L. Driscoll, Brooke E. Geiger, Crystal A. Moss, L. Schlapper, Erin D. Speetzen, Eric Bosch, Máté Erdélyi and Nathan P. Bowling “Intramolecular Halogen Bonding in Solution: ¹⁵N, ¹³C, and ¹⁹F NMR Studies of Temperature and Solvent Effects,” *European Journal of Organic Chemistry*, **2015**, (8), 1685-1695. Featured on the COVER.

(3) Shalisa M. Oburn, Nathan P. Bowling and Eric Bosch “Formation of self-complimentary halogen bonded dimers,” *Crystal Growth and Design*, **2015**, 15, 1112-1118.

Dr. Katye Fichter

Ellis, M.A., Grandinetti, G., Fichter, K.M., “Synthesis of Cd-free InP/ZnS Quantum Dots for Biomedical Applications,” *JoVE*, **2015**, In Press.

Dr. Nikolay Gerasimchuk

Dr. Gerasimchuk recently served as guest editor of a *special issue* of *Current Inorganic Chemistry*. The issue included nine articles contributed from 11 countries and three continents. He was also recently spotlighted in MSU’s *Mind’s Eye* for his research involving anticancer metal compounds, “Metals move front and center to target cancer.”

(1) Li, Y.; Dutta, T.; Gerasimchuk, N.; Wu, S.; Shetye, K.; Jin, L.; Wang, R.; Zhu, D-M.; Peng, Z. “Conjugated Foldamers with Unusually High Space-Charge-Limited Current Hole Mobilities,” *ACS Appl. Mater. Interfaces*, **2015**, 7 (18), 9372-9384.

(2) Tyukhtenko, S.I.; Hilton, M.; Gerasimchuk, N. “Classic Isomeric 1,2- and 2,1-nitrosophthols are Oximes in Solid State and Solutions,” *Current Inorganic Chemistry*, **2015**, 5 (2), 120-136.

(3) Marcano, D.C.; Lindeman, S.V.; Pyrkosz-Bulska, M.; Gumienna-Kontecka, E.; Lengyel, A.; Kuzmann, E.; Röminger, F.; Gerasimchuk, N. “The 2-Pyridylcyanoxime and its Complexes,” *Current Inorganic Chemistry*, **2015**, 5 (2), 98-113.

(4) Gerasimchuk, N.; Guzei, I.; Sipos, P. “Structural Peculiarities of Cyanoximes and their Anions: Co-crystallization of Two Diastereomers and Formation of Acid-salts,” *Current Inorganic Chemistry*, **2015**, 5 (1), 38-63.

(5) Klaus, D.R., Keene, M., Silchenko, S., Berezin, M., Gerasimchuk, N. “1D Polymeric Platinum Cyanoximate: A Strategy toward Luminescence in the Near-Infrared Region beyond 1000 nm,” *Inorganic Chemistry*, **2015**, 54 (4), 1890-1900.

(6) Gerasimchuk, N. “Synthesis, Properties, and Applications of Light-Insensitive Silver(I) Cyanoximates,” *Eur. J. Inorg. Chem.* **2014**, 27, 4518-4531.

Dr. Reza Sedaghat-Herati

W. Dowler, J. Robison, J.J. Fury, X. Dou, R. K. DeLong, R. Sedaghat-Herati, “Synthesis, Characterization, and Applications of Poly(ethylene glycol)-block-poly(ether-sulfide) Dendrimers,” *J. of Macromolecular Science, Part A: Pure and Applied Chemistry*, **2015**, 52 (1), 30-38. In Press.

Dr. Mark Richter

“Electrogenerated Chemiluminescence of tris(2-phenylpyridine)iridium(III) in Water, Acetonitrile and Trifluoroethanol,” Wesley D. Robinson, Mark M. Richter, *Luminescence: The Journal of Biological and Chemical Luminescence*, **2015**, 30 (1), 67-71.

Presentations:

(1) “Enhancing Coreactant Electrogenerated Chemiluminescence (ECL) by Oxygen Quenching,” The 15th International Symposium on Electroanalytical Chemistry (15th ISEAC), August 13-16, 2015, Changchun, China.

(2) “Enhancing Coreactant Electrogenerated Chemiluminescence (ECL),” University of Science and Technology, August 10, 2015, Heifei, China. Invited Presentation.

(3) “Enhancing Electrogenerated Chemiluminescence Using Melatonin,” ECL 2014, International Meeting on Electrogenerated Chemiluminescence, Bertinoro, Italy, September 7 – 10, 2014. Invited Presentation (1 of 7 invited speakers; all expenses paid).

Dr. Matthew Siebert

(1) Painter, P. P.; Siebert, M. R.; Tantillo, D. J., “Conjugate Addition/[3,3] Sigmatropic Shift Processes for Formation of Medium-Ring Cyclic Amines – Do They Circumvent the Woodward–Hoffmann Rules?” *J. Org. Chem.* **2015**, In Press.

(2) Sun, R.; Granucci, G; Paul, A. K.; Siebert, M. R.; Liang, H. J.; Cheong, G.; Hase, W. L.; Persico, M., “Potential Energy Surfaces for the $\text{HBr}^+ + \text{CO}_2 \rightarrow \text{Br} + \text{HOCO}^+$ Reaction in the $\text{HBr}^+ \text{}^2\Pi_{3/2}$ and $\text{}^2\Pi_{1/2}$ Spin-Orbit States,” *J. Chem. Phys.*, **2015**, 142, 104302.

Dr. Keiichi Yoshimatsu

(1) Yoshimatsu, K., Koide, H., Hoshino, Y. & Shea, K. J. “Preparation of abiotic polymer nanoparticles for sequestration and neutralization of a target peptide toxin.” *Nature Protocols*, **2015**, 10 (4), 595-604.

(2) Cho, K., Fasoli, J. B., Yoshimatsu, K., Shea, K. J. & Corn, R. M. “Measuring Melittin Uptake into Hydrogel Nanoparticles with Near-Infrared Single Nanoparticle Surface Plasmon Resonance Microscopy.” *Analytical Chemistry*, **2015**, 87 (9), 4973-4979.

UNDERGRADUATE RESEARCH DAY - APRIL 24, 2015

1st Place Chemistry: **Adam Kirkpatrick**

“Rotenoid Biosynthesis: Computational analysis of competing ionic and radical pathways for cyclization,”
Faculty Advisor: M. Siebert.

2nd Place Chemistry: **Hillary Mitchell**

“Inkjet-printed Multi Sensor Arrays on Flexible Substrates,”
Faculty Advisor: A. Wanekaya.

22ND ANNUAL GRADUATE INTERDISCIPLINARY FORUM - APRIL 25, 2015

Jeremy Hines presented “Gold(III)-Catalyzed Cyclization of Propargyl Acetates: Theoretical Study on the Synthesis of Bicyclic Products,” Faculty Advisor: M. Siebert.

Alicia Kane won an award for outstanding oral presentation at the IDF, “Erbium (III) Tetraphenylporphyrin-based Ion Selective Electrodes,” Faculty Advisor: E. Steinle.

Adedamola Opalade presented “Application of the DSC/TG method for investigation of organic, organometallics and coordination compounds.”

Snow Popis presented, “Antimicrobial light-curable polymeric composites including Silver(I) cyanoximates.” She also gave a presentation at Ozarks Technical Community College for an undergraduate research opportunity, “Chemical Comparison of Limestone in Missouri.”

POSTER PRESENTATION AWARDS - CHEMISTRY

Matthew Ellis, “Gd-Doped Inp/Zns Quantum Dots for Theranostic Applications,” Faculty Advisor: K. Fichter.

Nicholas Mundt, “Design and Development of Quantum Dot Probes with Exceptionally High Fidelity for Single-Molecule Imaging,” Faculty Advisor: K. Fichter.

Dr. Fichter, Nick Mundt, and Matthew Ellis also presented their research at the College of the Ozarks on October 22, 2015.

ACS NATIONAL MEETING, DENVER - MARCH 2015

Alicia Kane, “Erbium(III) Tetraphenylporphyrin-based Ion Selective Electrodes.”

Hillary Mitchell, “Inkjet-printed Multi Sensor Arrays on Flexible Substrates.”

49th ACS MIDWEST REGIONAL MEETING, UNIV. OF MISSOURI - NOVEMBER 2014

Dr. Gautam Bhattacharyya, (1) “What We Have Here is a Failure to Communicate!: Learning the Languages of

Organic Chemistry,” and (2) “Synergy and Interference in Organic Chemistry.”

Dr. Katye Fichter, “Multifunctional nanocrystals for multimodal imaging in biomedical applications.”

Matt Ellis presented (1) “Environmentally-friendly approach to quantum dot synthesis,” and the poster, (2) “Synthesis of Gd-doped quantum dots with multiple imaging modalities for theranostic applications.”

Michelle Herridge, “Major choices: Influence of college major on students’ beliefs about learning chemistry.”

Nicholas Mundt, “Functionalization of Nanocrystal Quantum Dots for use in Biomedical Applications.”

Snow Popis, “Antimicrobial light-curable polymeric composites including Silver(I) cyanoximates.”

50th ACS MIDWEST REGIONAL MEETING, ST. JOSEPH, MO - NOV. 2015

Adedamola A. Opalade presented the poster, “Investigating crystallohydrates of Ni and Zn cyanoximes coordination compounds.”

Brian High and **Dr. Matt Siebert** presented the poster, “Implementation of a Preparatory Course to Improve Student Opinion of Sophomore Organic Chemistry.”

Jeremy Hines presented the poster, “Gold(III)-Catalyzed Cyclization of Propargyl Acetates: Theoretical Study on the Synthesis of Bicyclic Products.”

Adam Kirkpatrick presented the poster, “Rotenoid Biosynthesis: Computational analysis of competing ionic and radical pathways for cyclization.”

Dr. Matt Siebert gave a lecture on “Lawesson’s Reagent Mediated Formation of Molecular Electronics: Theoretical Investigations into the Cycloaddition Chemistry Used to Produce Substituted-9,9’-Bifluorenylidenes.”

28th ANNUAL ORGANIC CHEMISTRY DAY, UNIV. OF MO - APRIL 11, 2015

Adam Kirkpatrick, Danielle Klaus, and Matthew Siebert, “Rotenoid Biosynthesis: Computational Analysis of Competing Ionic and Radical Pathways for Cyclization.”

Jeremy Hines and Mathew R. Siebert. “Computers in Chemistry: Using Theory to Evaluate the Mode of Action in Forming Carene-Class Molecules.”

Snow Popis, Mark Whited, Marianna Patrauchan, Nikolay Gerasimchuk. “Antimicrobial light-curable polymeric composites including Silver(I) cyanoximates.”

**28th ANNUAL MISSOURI INORGANIC DAY,
UNIV. OF MISSOURI - MAY 9, 2015**

Adedamola Opalade, Nikolay Gerasimchuk, “Application of the DSC/TG method for investigation of coordination compounds.”

Snow Popis, Mark Whited, Marianna Patrauchan, Nikolay Gerasimchuk. “Antimicrobial light-curable polymeric composites including Silver(I) cyanoximates.”

STUDENT AFFILIATES OF THE ACS (SAACS)

Greetings from the Student Affiliates of the American Chemical Society (SAACS)! Our new team of student officers has been planning an exciting semester full of events for students and staff of the chemistry department.

We kicked off the new school year with liquid nitrogen ice cream at our first meeting. That was a huge success and we were very excited to see several new faces! We appreciate seeing old faces, too, as we are looking to keep the group invigorated and active as ever.

SAACS is nationally recognized, and we like to stay involved with several different local, regional, and national events. We reach out within our Springfield community by participating in the Adopt-a-Street program and helping with the Sertoma Chili Cook-off in the spring. We also have demos for the public, such as Demos in the Dark, where we do colorful and explosive demonstrations for public schools, as well as anyone who enjoys a good chemistry show! During National Chemistry Week, we did the traditional Mole Hunt on the fourth floor of Temple Hall.

If you are interested in getting involved with the SAACS group, grab one of our brochures from the fourth floor of Temple. We have monthly meetings, where we keep in touch with members. We also have fun activities planned for each.

Hope you are having a great semester!

Sincerely,

*Officers of the MSU Student Affiliates of the
American Chemical Society*

Presidents - Alex Hunsel, Kalli Travlos

Vice-President - Jacob Blankenship

Treasurer - Kylee Farnum

Secretary - Brennon Foster

Recruitment/Advertising - Jamie Keathly, Brandy Bates

Historian - Kwang Choe

Field Experience Coordinator - Morgan Fender



Back row, Left to Right: Jacob Blankenship, Alex Hunsel, Kylee Farnum, Jamie Keathley, Kwang Choe

Front row, Left to Right: Kalli Travlos, Morgan Fender, Brennon Foster, Brandy Bates

News from Alumni

Tyler Beeman (2015) gained a job as an Analytical Chemist at Sparhawk Laboratories in Lenexa, Kansas. Tyler graduated in Spring 2015 as a Chemistry major and biology minor. While he was an undergraduate student, he worked in a water quality lab in the Springfield area.

Dan Dougherty (2014) is in his second year teaching at Lindbergh High School in St. Louis, MO. He teaches chemistry and physical science.

Shaina Dunn (2014) is teaching in Hurley, MO. She teaches earth science, chemistry, biology and physical science at Hurley High School.

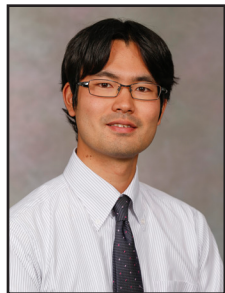
Michael Nothnagel (2014) is currently employed at the Wyoming Dept. of Environmental Quality - Water Quality Lab.

Tyler Roe (2014) is teaching science at Timberland High School in the Wentzville, MO school district.

Rachel Ross (Robinson) (2014) is teaching high school chemistry, physics, astronomy, and forensic science in the Valley Park, MO school district.

Megan Walcher (2014) is teaching general chemistry, AP Physics, and Physics First at Parkview High School in Springfield, MO.

NEW FACES IN THE DEPARTMENT



Dr. Keiichi Yoshimatsu, Assistant Professor of Chemistry, was born and raised in Tokyo, Japan. He studied at Tokyo University of Agriculture and Technology and earned a bachelor's degree in Engineering and Biotechnology. He studied further at Lund University in Sweden and earned a PhD in Engineering and Pure and Applied Biochemistry.

Previously, Keiichi worked at the National Institute for Materials Science in Japan and the University of California, Irvine, as a postdoc. His research emphasis is on Biochemistry, Biomaterials, and Chemical Biology.

Dr. Yoshimatsu came to MSU in July 2015, and in his first semester, he is teaching Introduction to Analytical Chemistry lab (CHM 302) and Introduction to Biochemistry lab (CHM 353).

In his spare time, Keiichi enjoys traveling, cooking and eating, reading books, and listening to music. He and his wife, Kumiko, have a 3-year old daughter named Miho.

"I'm very excited to join MSU and hope to spend fruitful years in both research and teaching!"



Lisa Reece, Instructor of Chemistry, is from the Springfield area. Before coming to MSU, she taught for 33 years, including service at Hume, Hillcrest, and Kickapoo high schools and Ozarks Technical College. She and her husband, Mike, have been married for 31 years. He teaches Industrial Arts at Ash Grove High School. She enjoys living near her extended family on a century-old farm on the Sac River near Ash Grove.

Lisa graduated from MSU with a BS in Education, with a major in biology and a minor in Chemistry. She then earned an MS in Psychology and Counseling from Pittsburg State University, where she studied chemistry at the graduate level. She has done PhD work in Educational Leadership of Higher Learning.

Currently, she is coordinating and teaching CHM 117 and will add CHM 116 in the spring. She is involved in student recruitment and supervision of the science student teachers.

Her hobbies in the summer include managing a church camp near Halltown with her husband. She is involved at church and works with youth and is a music director. During the warmer months, she enjoys working in her flower beds and spending time with her grandsons, watching them play basketball, baseball and soccer. Lisa loves sports herself;

she lettered in basketball and softball at MSU during her college days. She was inducted into the MSU Sports Hall of Fame.



Dr. Fei Wang, Assistant Professor of Chemistry, was born in a coastal town called Rongcheng in China and lived there until he was 17. He studied at Qingdao University of Science and Technology, which is located

in Qingdao (or, Tsingtao), a city where the best Chinese beer is brewed. His master's degree is from Zhejiang University in Hangzhou, a well-known tourist city. He moved to Ames, Iowa, and attended the PhD program in Iowa State University and graduated in 2011.

The next two years, Fei worked as a postdoctoral researcher in Max Planck Institute in Germany. And in 2013, he moved to Lund University in Sweden until 2015.

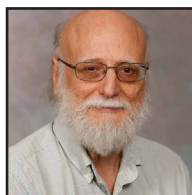
Dr. Wang came to MSU this fall, and he will be teaching courses in general, inorganic, and physical chemistry. His research is in solid state chemistry, such as thermoelectric materials. His research uses various techniques, including crystallography, electrical and thermal conductivity measurement and quantum mechanics calculations.

In his spare time, Fei enjoys swimming, playing volleyball and tennis.

"Welcome to Missouri State!"

CNAS FACULTY AWARDS SPRING 2015

Congratulations to the Chemistry faculty members who were recognized in the spring for Faculty Excellence!



Faculty Excellence in Teaching
Dr. Rich Biagioni

Faculty Excellence in Research
Dr. Eric Bosch



Faculty Excellence in Service
Dr. Bryan Breyfogle

Faculty Excellence in Research
Dr. Nikolay Gerasimchuk



Outstanding Thesis Advisor, Chemistry
Dr. Erich Steinle



In the spring of 2015, Dr. Diann Thomas moved to Ozarks Technical Community College to serve as the new Program Director of Chemical Laboratory Technology.

From Diann: "I want to say a huge THANK YOU to all my colleagues and friends at Missouri State who made my time there so special."

Diann started working in the Chemistry department at MSU in August of 2001 as the Laboratory Coordinator and an Instructor until mid-January 2015.

Over the years, Diann supervised and taught several courses, including: Chemistry for the Citizen, Fundamentals of Chemistry, General Chemistry I and II, and the Essentials of Organic Chemistry lab. She also taught Principles of Environmental Chemistry in Spring 2012, CHM 597 the first semester it was offered, and she co-taught Study Away classes with Dr. Janice Greene (Biology) in South America, studying environmental chemistry/biology on the Amazon River.

Diann served on numerous faculty committees and was recognized for earning teaching and service awards and numerous grants. She was also the ACS Student Affiliates advisor (2009-2015). For three years, their group received recognition at the national level: Honorable Mention (2010-2011), Commendable (2011-2012), and Commendable and Green Chemistry Chapter award (2012-2013). She also enjoyed working in the Science Olympiad and served as an Ozark Science and Engineering Fair judge (2010-2013).

As much as we miss her, we wish her the best in her new position at OTC. Thanks, Dr. Thomas for your many years of service and dedication to our department!



"Working with the ACS Student Affiliates was a privilege and joy, and it was thrilling to watch them bloom and become an award-winning group. Taking the students on the Study Away trips was also a great memory, watching the students climb out of their comfort zones and experience another culture."

- Dr. Diann Thomas

CONGRATS, GRADS!

FALL 2014 - SUMMER 2015

BACHELOR OF SCIENCE

FALL 2014

Alford, Joshua
Bunn, Shelby
Hines, Jeremy
Jones, Peter

Ross, Rachel
Webber, Jam
Wilson, Zachary

SPRING 2015

Abdelhakiem, Alaa
Beeman, Tyler
Brummel, Beau
Craft, Tyler
Dunn, Shaina
Gaspar, Melissa
Harris, Zachary
Hendrix, Carl
Jacobs, Jasten
Kelly, Ian
Kirkpatrick, Adam
Kosinska, Karolina

Lloyd, Jonathan
McMinn, Jeremy
Mitchell, Hillary
Ortmeyer, Holly
Parker, Ashley
Scherrer, Brandon
Stoltz, Dallas
Stroup, Ronald
Vontz, Max

SUMMER 2015

John, Shawna

MASTER OF SCIENCE

FALL 2014

Agana, Bernice
Hoskins, Johnathon
Manani, Geoffrey
Mihalik, Cory

SPRING 2015

Dou, Xiaozheng
Kirchner, Lisa

SUMMER 2015

Davis, Jason



Left to Right: Dallas Stoltz, Lisa Kirchner, Melissa Gaspar, Karolina Kosinska, Alaa Abdelhakiem, Shawn Dou, Tyler Craft, Dr. G. Alan Schick

MASTER OF SCIENCE THESES published in 2015:

Agana, Bernice Apusiyinne. "Investigating endocytic trafficking of 5-HT_{1B} receptors at different agonist concentration using quantum dots," December 2014. Advisor: Katy Fichter.

Cao, Chunling. "¹H NMR examination of DNA structure containing 3, N⁴-etheno-2'-deoxycytidine," August 2014. Advisor: Gary Meints.

Davis, Jason Matthew. "Synthesis and functionalization of fluorescent quantum dot bioconjugates for cellular imaging of directed gene therapy," July 2015. Advisor: Katy Fichter.

Dou, Xiaozheng. "Synthesis, characterization, and applications of dendrimers," May 2015. Advisor: Reza Herati.

Kirchner, Lisa Michelle. "Evaluation of halogen bonding for crystal engineering," May 2015. Advisor: Eric Bosch.

Manani, Geoffrey Nyauma. "Novel aqueous phase fabrication and characterization of gold coated cobalt nanoparticles," December 2014. Advisor: Adam Wanekaya.

Alumni & Friends

We enjoy hearing from our Chemistry alumni and friends! Please send us an e-mail at: chemistry@missouristate.edu. Include your current contact information, year of graduation and degree earned. Let us know where you are working now, job title or other career accomplishments, and we can include that in the next newsletter. Stay current with the MSU Alumni Association at <http://alumni.missouristate.edu>. Here you can update your contact information online and learn about upcoming alumni events, such as MarooNation.

Giving

State universities could not operate without generous contributions from alumni and friends. Your support enables us to provide scholarships, teaching equipment, and more. We hope you will consider making a contribution; your gift is tax deductible.

If you would like to contribute, please make checks payable to the MSU Foundation in support of Chemistry, and mail to: Temple Hall 423, 901 S. National Ave., Springfield, MO 65897. Or, donate online at <http://chemistry.missouristate.edu/Alumni.htm>. **Thank you!**

Recognition Banquet

In the spring, the Chemistry department hosted the annual awards banquet to recognize students for outstanding accomplishments in the past year. Twenty-five student scholarships were recognized, and thirteen outstanding student certificates were awarded. Congratulations, students! Thank you to the students, parents, board members, donors, and faculty who could be in attendance!



~ OUTSTANDING STUDENT AWARDS SPRING 2015 ~

ACS Organic Chemistry

Jeremy Hines

ACS Analytical Chemistry

Kalliope Travlos

ACS Inorganic Chemistry

Melissa Gaspar

CRC General Chemistry Achievement

Nathan Duncan, Kayla King

Hypercube Scholar

Adam Kirkpatrick

Advanced Inorganic Chemistry

Beau Brummel

Biochemistry

Alaa Abdelhakiem

Physical Chemistry

Beau Brummel, Hillary Mitchell

POLYED Undergraduate Organic Chemistry

Shelby Harris

Outstanding Senior 2014-2015

Hillary Mitchell



~ SCHOLARSHIP WINNERS SPRING 2015 ~

Chemistry Department Scholarship

Amber Christenson, Kalliope Travlos, Joshua Woodiel

Chemistry Board of Advisors Summer Fellowship

Adam Kirkpatrick

Doris Lorz Scholarship

Shelby Harris

Dr. & Mrs. Vernon Thielmann Chemical Education Awards

Shaina Dunn, Kristofer Hansen

Dr. Robert W. Martin Research Fellowship

Amber Christenson, Meagan Rippee

Emil Lorz Memorial Scholarship

Brennon Foster, Shelby Harris

Eugene T. Scafe Memorial Scholarship

Jacob Blankenship, Daniel Fieker, Timothy Isakson, Meagan Rippee, Kalliope Travlos

Foundation for Immunotoxicology Award

Brennon Foster

Harriett H. Ford Memorial Scholarship

Hannah Eberle

Louise and Roland Harthcock Scholarship

Courtney Classick

Robert Lloyd Ernst Summer Graduate Assistantship

Aaron Simpson

Robert S. Christie Memorial Scholarship

Preston Thomas, Andrea Vanne

WEB and AOB Scholarship

Snow Popis

William J. Husa Scholarship

Amber Christenson

Wyman & Sue Grindstaff Chemical Education Scholarship

Joshua Woodiel

**Editor's note: These two scholarships were accidentally omitted from last year's newsletter.*



***Dr. Robert W. Martin Research Fellowship**

Jeremy Hines

***WEB and AOB Scholarship**

Danielle Klaus



Chemistry Fun!



SAACS Liquid Nitrogen Ice Cream Demo at the first ACS meeting this fall.



New Stockroom & Labs!



New teaching labs in TEM 403 and TEM 432.



New stockroom in TEM 474.



SAACS Adopt-a-Street Trash Pickup in September.



New Biochemistry coldroom, teaching lab and more research space in TEM 330, 330A, 332, 334 and 336.

SPRING 2015 SCHOLARSHIP AND AWARD WINNERS



Left to right, front: Shaina Dunn, Kayla King, Kristofer Hansen, Courtney Classick, Jacob Blankenship, Hillary Mitchell, Kalliope Travlos, Preston Thomas, Alaa Abdelhakiem, Meagan Rippee, Snow Popis.

Left to right, back: Nathan Duncan, Andrea Vanne, Aaron Simpson, Adam Kirkpatrick, Jeremy Hines, Shelby Harris, Joshua Woodiel, Beau Brummel, Timothy Isakson, Melissa Gaspar, Amber Cristensen.



DEPARTMENT OF CHEMISTRY

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		Keiichi Yoshimatsu	<i>KYoshimatsu@missouristate.edu</i>

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Molecules & Moles

The Newsletter of the Missouri State University
Department of Chemistry

To submit information for the next newsletter, please contact Kristy Teague or Linda Allen.

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