

Publications 2011

Department of Chemistry and Biochemistry

I. Journal Articles (27)

1. **Gato, W. E. , J. C. Means.** 2011. Global Pancreatic Gene Expression Analysis of Fisher-344 Male Rats Indicates SLC2A4 (Glucose Transporter) Gene to Play Important Role in the Toxicity Effects of 2-Aminoanthracene Exposure. *J Pharmacol Toxicol* , 6:234 - 248.
2. **Segu, Z. M. , R. Timmons, Kinsel.** 2011. Increasing surface capacity for on-probe affinity capture MALDI-MS via gold particle attachment to allyl amine plasma polymers. *Analytical Chemistry*, 83(7):2500 - 2504.
3. **Gato, W. E. , J. C. Means.** 2011. Single Cell Gel Electrophoretic Analysis of 2-Aminoanthracene Exposed F-344 Rats. *Am.J. Biochem. Mol. Biol.*, 1:278 - 283.
4. **Gato, W. E. , J. C. Means.** 2011. Exploring Transcriptional Relationships Within Fisher-344 Rats Exposed to 2-Aminoanthracene using VisANT Network Modeling and Gene Ontology Tools. . *Res. J. Environ. Toxicol.*, 5:251 - 265.
5. **Liu, J., Q. Ge.** 2011. Using first-principles metadynamics simulation to predict new phases and probe phase transition of NaAlH₄. *J. Phys.: Condens. Matter*, 23:345401 - 9.
6. **Pan, Y., D. Mei, C. Liu, Q. Ge.** 2011. Hydrogen Adsorption on Ga₂O₃ Surface: A Combined Experimental and Computational Study. *J. Phys. Chem. C* , 115:10140 - -.
7. **Liu, J., J. Yu, Q. Ge.** 2011. Hydride-Assisted Hydrogenation of Ti-Doped NaH/Al: A Density-Functional Theory Study. *J. Phys. Chem. C*, 115:2522 - -.
8. **Ge, Q., J. Wang, J. Li.** 2011. Special Issue Preface. *Catalysis Today*, 165:1 - 1.
9. **Yin, S., T. Swift, Q. Ge.** 2011. Adsorption and activation of CO₂ over the Cu-Co catalyst supported on partially hydroxylated γ -Al₂O₃. *Catalysis Today*, 165:10 - -.
10. **Bounos, G., S. Ghosh, A. Lee, K. Plunkett, K. Dubay, J. Bolinger, R. Zhang, R. Friesner, C. Nuckolls, D. Reichman, P. Barbara.** 2011. Controlling Chain Conformation in Conjugated Polymers Using Defect Inclusion Strategies. *J. Am. Chem. Soc.*, 133:10155 - 10160.
11. **Whalley, A., K. Plunkett, A. Gorodetsky, C. Schenck, C. Chiu, M. Steigerwald, C. Nuckolls.** 2011. Bending Contorted Hexabenzocoronene into a Bowl. *Chem. Sci.*, 2:132 - 135.
12. **Al-Talla, Z., S. Akrawi, L. Tolley, S. Sioud, M. Zaater, A. Emwas.** 2011. Bioequivalence assessment of two formulations of ibuprofen.. *Drug Design, Development and Therapy*, 5:427 - 433.

13. **Hatfield, M. L. , K. E. Huff Hartz.** 2011. Secondary organic aerosol from biogenic volatile organic compound mixtures. *Atmospheric Environment*, 45(13):2211 - 2219.
14. **Whiting, N., P. Nikolaou, N. Eschmann, M. Barlow, B. Goodson.** 2011. Interdependence of Xenon Density and Temperature on Rb/¹²⁹Xe Optical Pumping Efficiency at High Xenon Densities. *Journal of Magnetic Resonance*, 208:298 - 304.
15. **Whiting, N., N. Eschmann, M. Barlow, B. Goodson.** 2011. ¹²⁹Xe/Cs (D₁, D₂) Versus ¹²⁹Xe/Rb (D₁) Spin-Exchange Optical Pumping at High Xenon Densities Using High-Power Laser Diode Arrays. *Physical Review A*, 83(53428).
16. **Hilburn, B., D. Merkel, S. Wells, B. M. Lee.** 2011. Structural Analysis of the C-Terminal RNA Binding Domain of CPEB3. *Biophysical Journal*, 100(3):233a - 234a.
17. **Merkel, D., B. Hilburn, S. Wells, S. Geiser, H. Hoover, O. Ajoku, B. M. Lee.** 2011. Structural Characterization of the Zinc Finger Domain of Cytoplasmic Polyadenylation Element-Binding Protein. *Biophysical Journal*, 100(3):606a - 606a.
18. **Mo, L., D. Liu, W. Li, L. Li, L. Wang, X. Zhou.** 2011. Effects of dodecylamine and dodecanethiol on the conductive properties of nano-Ag films. *Appl. Surf. Sci.* , 257:5746 - 5753.
19. **Wang, L., J. Williams, T. Lin, C. Zhong.** 2011. Spontaneous reduction of O₂ on PtVFe nanocatalysts. *Catalysis Today* , 165:150 - 159.
20. **Zhang, W., L. Wang.** 2011. The effect of cluster thickness on the adsorption of CH₄ on Pd_n. *Comput. Theoret. Chem.* , 963:236 - 244.
21. **Davis, J. M. , S. C. Rutan, P. W. Carr.** 2011. Relationship between selectivity and average resolution in comprehensive two-dimensional separations with spectroscopic detection. *J. Chromatogr. A*, 1218:5819 - 5828.
22. **Davis, J. M. .** 2011. Computation of distribution of minimum resolution for lot-normal distribution of chromatographic peak heights. *J. Chromatogr. A*, 1218:7841 - 7849.
23. **Schure, M. R. .** 2011. The statistical overlap theory of chromatography using power law (fractal) statistics. *J. Chromatogr. A*, 1218:9297 - 9306.
24. **Davis, J. M. .** 2011. Dependence on effective saturation of numbers of singlet peaks in one- and two-dimensional separations. *Talanta*, 83:1068 - 1073.
25. **Zhou, C., P. Kohli.** 2011. Ultracompact beam splitters based on plasmonic nanoslits. *J. Appl. Phys.*, 109:093114/1 - 093114/6.
26. **Luster, B., D. Stone, K. Polochronopoulou, C. Rebholz, M. Baben, J. Schneider, P. Kohli, S. M. Aouadi.** 2011. Textured VN coatings with silver vanadate solid lubricant reservoirs. *Surf. Coat. Technol.*, 206:1932 - 1935.
27. **Hoyle, C. R. , M. Boy, N. M. Donahue, J. L. Fry, M. Glasius, A. Guenther, A. G. Haller, K. Huff Hartz, M. D. Petters, T. Petaja, T. Rosenoern, A. P. Sullivan.** 2011. A review of the anthropogenic

influence on biogenic secondary organic aerosol. *Atmospheric Chemistry and Physics*, 11(1):321 - 343.

- II. Books and Monographs (1)**
1. **Scott, C.** 2011. *The Art of Studying General Chemistry*. Kendall Hunt.
- III. Book Chapters (2)**
1. **Lockwood, S. B. , B. C. Dave.** 2011. A closer look at "Green" glass: Remediation with organosilica sol-gels through the application of green chemistry. Scrivener Publishing, Salem, MA, eds. R. Sanghi and V. Singh, Book Title: *Green Chemistry for Environmental Remediation*.
 2. **Liu, J., J. Tyrrell, Q. Ge.** 2011. Computational nanostructure design for hydrogen storage. Springer series: Green Energy and Technology, ed. L. Zang, Book Title: *Energy Efficiency and Renewable Energy through Nanotechnology*, 761 - 799.
- IV. Proceedings and Publications (1)**
1. **Baker, J. C. , J. Li, S. C. Banning, P. R. Rajasekaran, J. M. Owens, F. F. Cuadrado, Y. Cao, J. M. Hennings, M. C. Houle, T. L. Nosovitsky, C. A. Carney, G. C. Pérez-Alvarado.** 2011. Characterization of functional and structural domains in the adaptor protein LMO7 and their interactions with proteins at the adherens junctions. *Biophysical J.* 100(3), 605a (2011).
- V. Abstracts and Presentations(International) (30)**
1. **Ge, Q.**Nov 2011.Activation and conversion of CO₂ on supported metal catalysts.Presented at the International Symposium on Energy Technology and Strategy, NCKU, Tainan, Taiwan.
 2. **Mccarroll, M. E. , D. Dyer, L. Wang, G. Hudson, Q. Best.**Oct 2011.Experimental evaluation of response selective sensors.Hawaii.(Pacifichem 2010 (invited talk)).
 3. **Wang, L.**Aug 2011.Solar catalytic hydrogenation in direct coal liquefaction.Presented at the 242nd National ACS Meeting, Denver, CO.
 4. **Hudson, G., L. Wang, F. Mumba.**Aug 2011.Assessing physical chemistry undergraduate students' interpretation of chemical kinetics equations.Presented at the 242nd National ACS Meeting, Denver, CO.
 5. **Hudson, G., L. Wang, F. Mumba.**Aug 2011.Identifying undergraduate students' mathematical skills, reasoning, and speed for chemical kinetics.Presented at the 242nd National ACS meeting, Denver, CO.
 6. **Ge, Q.**Aug 2011.Complex metal hydrides as hydrogen storage materials: Hydrogen interaction and phase transition.Presented at the 242nd ACS National Meeting, Denver, CO.
 7. **Ge, Q.**Aug 2011.Activation and conversion of CO₂ on supported metal catalysts.Presented at the 242nd ACS National Meeting, Denver, CO.
 8. **Ye, J., Q. Ge, C. Liu.**Aug 2011.DFT study of CO₂ adsorption and hydrogenation on the In₂O₃ surfaces.Presented at the 242nd ACS National Meeting, Denver, CO.
 9. **Wang, X., Q. Best, C. Scott, M. Mccarroll.**Aug 2011.New Whelk-O 1 monolithic HPLC column for separating chiral compounds.Presented at the 242nd ACS National Meeting, Denver, CO.

10. **Mumba, F., G. R. Kinsel.** Aug 2011. Impact of technology-based chemistry structured learning workshops on teaching assistants' pedagogical content knowledge and technology skills. Presented at the 242nd ACS National Meeting, Denver, CO.
11. **Wang, L., C. Bailey, H. Shay, C. Brendon, L. Starkey, L. Tolley, M. Mccarroll.** Aug 2011. Fluorescence anisotropy for the detection of target proteins. Presented at the 242nd ACS National Meeting, Denver, CO.
12. **Scott, C.** Aug 2011. Progress towards the synthesis and characterization of a RGD-functionalized conducting polymer for the use as Nerve guidance channel. Presented at the 16th International Symposium on Silicon Chemistry, McMaster University, Hamilton, Ontario, Canada.
13. **Scott, C.** Jul 2011. New developments in the synthesis and characterization of a RGD-functionalized conducting polymer for the use as a nerve guidance channel. Presented at the Gordon Research Conference in Biomaterials and Tissue Engineering.
14. **Eastwood, S., V. Wong, B. Mitrovic, C. Scott, G. R. Kinsel.** Jun 2011. Peptide / Protein separation with cationic polymer brush nanospheres for MALDI MS analysis. Presented at the 59th ASMS Conference on Mass Spectrometry, Denver, CO.
15. **Priyasantha, K., M. Kinsel, G. R. Kinsel.** Jun 2011. Significance of ion signal resolution in MALDI quantification studies. Presented at the 59th ASMS conference on mass spectrometry, Denver, CO.
16. **Schwartz, S., B. Luster, D. P. Singh, D. Stone, M. Baben, J. M. Schneider, P. Kohli, S. M. Aouadi.** May 2011. Textured coatings with Ag₃VO₄ solid lubricant reservoirs. Presented at the International Conference on Metallurgical Coatings and Thin Films, San Diego, CA.
17. **He, P., A. Hunter, K. Chaffee, T. Brotin, J. Dutasta, E. Chekmenev, B. Goodson.** Apr 2011. NMR Studies of Complexation of Molecular Hydrogen and Parahydrogen: Fast-Exchange Binding in Cryptophane-111 and 'Lighting Up' Small-Molecule NMR via SABRE. 52nd Experimental Nuclear Magnetic Resonance Conference, Asilomar, CA.
18. **Whiting, N., M. Barlow, H. Newton, L. Walkup, P. Nikolaou, B. Goodson.** Apr 2011. Cesium/Xenon Spin-Exchange Optical Pumping Using High-Power Frequency-Narrowed Laser Diode Arrays at High Xenon Densities. 52nd Experimental Nuclear Magnetic Resonance Conference, Asilomar, CA.
19. **Liljeroth, M., N. Whiting, M. Barlow, R. Walker, K. Teh, B. Goodson, P. Morris.** Apr 2011. Continuous Flow Rb/¹²⁹Xe Spin-Exchange Optical Pumping at High Xenon Densities: Preliminary Studies Toward *in vivo* Lung Imaging. 52nd Experimental Nuclear Magnetic Resonance Conference, Asilomar, CA.
20. **Ranta, K., L. Walkup, N. Whiting, P. Nikolaou, M. Barlow, B. Goodson.** Apr 2011. Interplay of Temperature, Xe Density, and Laser Linewidth during Rb/¹²⁹Xe Spin-Exchange Optical Pumping: Simulation vs. Experiment. 52nd Experimental Nuclear Magnetic Resonance Conference, Asilomar, CA.

21. **Gurung, R. K. , Y. Hou.**Mar 2011.Surprising formation of esters from alkyl halides and o-iodoxybenzoic acid or o-iodosobenzoic acid in the presence of quaternary ammonium halide.Presented at the 241st ACS National Meeting, Anaheim, CA.
22. **Owens, A., B. Dave.**Mar 2011.Antimicrobial organosilica sol-gel coatings and treatments for biomedical applications.Presented at the 241st National ACS Meeting, Anaheim, CA.
23. **Sattenpally, N., Q. Best, C. Scott, M. Mccarroll, L. Wang, D. Dyer.**Mar 2011.Novel silole fluorophore synthesis, characterization and applications.Presented at the 241st ACS National Meeting, Anaheim, CA.
24. **Gato, W. E. , J. C. Means.**Mar 2011.Global Pancreatic Gene Expression Analysis of Fisher-344 Male Rats Indicates SLC2A4 (Glucose Transporter) Gene to Play Important Role in the Toxicity Effects of 2-Aminoanthracene Exposure.50th Annual Society of Toxicology Meeting, Washington, DC.
25. **Zhou, C., K. Flynn, P. Kohli.**Mar 2011.Towards breaking diffraction limit with self-assembled array of microlenses in a far-field microscope.Presented at Pittcon 2011, Atlanta, GA.
26. **Dogra, N., P. Kohli.**Mar 2011.Design and optimization of optically active biosensors.Presented at Pittcon 2011, Atlanta, GA.
27. **Baker, J. C. , J. Li, S. C. Banning, P. R. Rajasekaran, J. M. Owens, F. F. Cuadrado, Y. Cao, J. M. Hennings, M. C. Houle, T. L. Nosovitsky, C. A. Carney, G. C. Pérez-Alvarado.**Mar 2011.Characterization of functional and structural domains in the adaptor protein LMO7 and their interactions with proteins at the adherens junctions..Biophysical Society 55th Annual Meeting, Baltimore, MD (March 5-9, 2011).
28. **Pérez-Alvarado, G. C. .**Jan 2011.Structural determinants of molecular recognition by the adaptor protein LMO7.Keystone Symposia, Frontiers of NMR Biology, Big Sky, Montana .(Oral presentation).
29. **Merkel, D., S. Wells, B. Hilburn, B. Hale, F. Elazzouzi, B. Lee.**Jan 2011.Recognition of mRNA sequence versus mRNA secondary structural elements by Cytoplasmic Polyadenylation Element Binding Protein (CPEB).Frontiers of NMR in Biology, Keystone Symposium, Big Sky, MT.
30. **Baker, J. C. , J. Li, J. M. Owens, P. R. Rajasekaran, S. C. Banning, Y. Cao, F. F. Cuadrado, J. M. Hennings, M. C. Houle, T. L. Nosovitsky, G. C. Pérez-Alvarado.**Jan 2011.Structural determinants of molecular recognition by the adaptor protein LMO7..Keystone Symposia, Frontiers of NMR Biology, Big Sky, Montana.(Poster presentation - The abstract was selected also for oral presentation on a separate day).

VI. Abstracts and Presentations(National) (45)

1. **Carney, C. A. , B. C. Hilburn, R. C. Weber, P. Van Hoveln, K. H. Cho, B. M. Lee, G. C. Pérez-Alvarado.**Oct 2011.Analyses of the catalytic activity of the HD phosphohydrolase domain in the conserved virulence factor A.Great Plains Regional Annual Symposium on Protein &

- Biomolecular NMR, University of Kansas, Lawrence, KS (October 28-29, 2011).
- Baker, J. C. , J. Li, B. C. Hilburn, C. N. Meadows, P. R. Rajasekaran, J. M. Owens, Y. Cao, F. F. Cuadrado, S. C. Banning, M. C. Houle, J. M. Hennings, C. A. Carney, G. C. Pérez-Alvarado.** Oct 2011. Mechanisms of molecular assembly associated with the PDZ and LIM domains of LMO7 at the adherens junctions. .Great Plains Regional Annual Symposium on Protein & Biomolecular NMR, University of Kansas, Lawrence, KS (October 28-29, 2011).
 - Shang, J., S. Geiser, R. Weber, K. H. Cho, G. C. Perez-Alvarado, B. M. Lee.** Oct 2011. Characterizing the structure of the KH domain of CvfA in *Streptococcus pyogenes*. Great Plains Regional Annual Symposium on Protein & Biomolecular NMR, University of Kansas, Lawrence, KS.
 - Merkel, D., B. Hilburn, S. Wells, J. Allen, S. Geiser, O. Ajoku, F. Elazzouzi, B. M. Lee.** Oct 2011. Characterizing the structure of the zinc finger in CPEB1. Great Plains Regional Annual Symposium on Protein & Biomolecular NMR, University of Kansas, Lawrence, KS.
 - Lee, B. M. .** Oct 2011. Towards the solution structure of the binuclear zinc binding domain of cytoplasmic polyadenylation element binding protein. Great Plains Regional Annual Symposium on Protein & Biomolecular NMR, University of Kansas, Lawrence, KS.
 - Colleen Scott, Daniel Dyer, Gary Kinsel, Bojan Mitrovic, Stephanie Eastwood, Venney Wong.** Oct 2011. Polymer Brush Nanosponges for Protein Separations. 241th Regional Meeting of the American Chemical Society, St. Louis, MO. (Oral Presentation Session Chair).
 - Czerniejewski, M., H. Amin, L. Wang, M. Mccarroll, K. Huff Hartz.** Oct 2011. Determination of reactive oxygen species in secondary organic aerosols produced from essential oils. St. Louis, MO. (Joint Midwest and Great Lakes Regional Meeting 2011).
 - Amin, H., K. Huff Hartz.** Oct 2011. Speciation and Formation of SOA Generated from Ozonolysis of Realistic Terpene Mixtures. St. Louis, MO. (Joint Midwest and Great Lakes Regional Meeting 2011).
 - Hua, W., K. E. Huff Hartz.** Oct 2011. Dynamic solid phase microextraction sampling for monoterpenes in the presence of ozone. St. Louis, MO. (Joint Midwest and Great Lakes Regional Meeting 2011).
 - Wang, L.** Oct 2011. Transition metal nanoparticles as catalysts in fuel cell applications. Joint 2011 ACS Midwest / Great Lakes Regional Meeting, St. Louis, MO.
 - Sattenapally, N., Q. Best, C. Liu, C. Bailey, D. Dyer, L. Wang, M. Mccarroll, C. Scott.** Oct 2011. Investigation of silicon analog of fluorescein as pH responsive fluorescent probe. Presented at the Joint 46th Midwest and 39th Great Lakes Regional ACS Meeting, St. Louis, MO.
 - Liu, C., N. Sattenapally, Q. Best, L. Wang, M. Mccarroll, C. Scott.** Oct 2011. Progress towards the synthesis of a long wavelength fluorescent biosensor for citrate metabolite. Presented at the Joint 46th Midwest and 39th Great Lakes Regional ACS Meeting, St. Louis, MO.

13. **Best, Q., C. Scott, M. Mccarroll.** Oct 2011. Long wavelength fluorophores for the generation of singlet state oxygen. Presented at the Joint 46th Midwest and 39th Great Lakes Regional ACS Meeting, St. Louis, MO.
14. **Knoll, P. R. , J. C. Means.** Oct 2011. Adenine-4-amino-biphenyl Formation by Acid Hydrolysis of TP53 exon7 CDNA in the Presence of 4-Amino-biphenyl as Evidenced by LC/ESI/MS/MS. Midwest Regional ACS meeting, St. Louis, MO.
15. **Yang, Y., W. E. Gato, H. Abshiro, J. C. Means.** Oct 2011. The Effects of Natural Colloids on the adsorption of Polycyclic Aromatic Hydrocarbons on Multi-walled Carbon Nanotubes. Midwest Regional ACS meeting, St. Louis, MO.
16. **Abshiro, H., W. E. Gato, J. C. Means.** Oct 2011. Identification of peptides from Liver Tissues of 2-Aminoanthracene exposed Fisher-344 Rats. Midwest Regional ACS meeting, St. Louis, MO.
17. **Kohli, P.** Oct 2011. Breaking diffraction limit in a far-field microscope. Presented at MUACC 2011, St. Louis, MO.
18. **Pradeep, R. R. , C. Zhou, P. Kohli.** Oct 2011. Nano-Editor: Rectification of patterns. Presented at MUACC 2011, St. Louis, MO.
19. **Zhou, C., P. Kohli.** Oct 2011. Super-high resolution and cloaking in the same system. Presented at MUACC 2011, St. Louis, MO.
20. **Wong, V., K. K. Priyasantha, G. Kinsel, F. Mumba.** Oct 2011. Impact of computer-based structured learning workshop on graduate teaching assistant's specific chemistry content. Presented at the 46th Midwest / 39th Great Lakes Joint Regional ACS Meeting, St. Louis, MO.
21. **Wong, V., G. R. Kinsel, F. Mumba.** Oct 2011. Teaching assistants' successes and challenges in Assessment Review and Instruction (ARIS) program. Presented at the 46th Midwest / 39th Great Lakes Joint Regional ACS Meeting, St. Louis, MO.
22. **Goodson, B., N. Whiting, P. He, P. Nikolaou, L. Laura, A. Coffey, K. Groome, H. Newton, B. Gust, K. Ranta, A. Hunter, N. Eschmann, M. Barlow, E. Chekmenev.** Oct 2011. Studies of Atomic and Molecular Interactions of Laser-Polarized Xenon and Parahydrogen for Magnetic Resonance Applications. Joint American Chemical Society Midwest / Great Lakes Regional Meeting, St. Louis, MO. (Invited Talk).
23. **Carney, C. A. , B. C. Hilburn, R. C. Weber, K. H. Cho, B. M. Lee, G. C. Pérez-Alvarado.** Sep 2011. Studies on the metal-dependent catalytic activity of the HD phosphohydrolase domain in the conserved virulence factor A.25th Annual Gibbs Conference on Biothermodynamics, Touch of Nature Conference Center, Carbondale, IL (September 17-20, 2011).
24. **Hilburn, B. C. , J. C. Baker, J. Li, M. C. Houle, J. M. Owens, S. C. Banning, F. Cuadrado, T. L. Nosovitsky, G. C. Pérez-Alvarado.** Sep 2011. Mechanisms of molecular recognition by the transcription factor LMO7. 25th Annual Gibbs Conference on Biothermodynamics, Touch of Nature Conference Center, Carbondale, IL (September 17-20, 2011).
25. **Merkel, D., B. Hilburn, J. Allen, S. Geiser, O. Ajoku, F. Elazzouzi, B. M. Lee.** Sep 2011. Characterizing the structure of the zinc finger in

- CPEB1. The 25th Annual Gibbs Conference on Biothermodynamics, Touch of Nature, Southern Illinois University Carbondale, Carbondale, IL.
26. **Shang, J., S. Geiser, R. Weber, K. H. Cho, G. C. Perez-Alvarado, B. M. Lee.** Sep 2011. Characterizing the structure of the KH domain of CvfA in *Streptococcus pyogenes*. The 25th Annual Gibbs Conference on Biothermodynamics, Touch of Nature, Southern Illinois University Carbondale, Carbondale, IL.
 27. **Weber, R. C., J. Shang, S. Geiser, K. H. Cho, G. C. Pérez-Alvarado, B. M. Lee.** Aug 2011. Structural characterization of the KH and HD domains of CvfA in *Streptococcus pyogenes*. Summer Research Program for High School Students 2011, Department of Chemistry and Biochemistry, Southern Illinois University, Carbondale, IL (August 4, 2011).
 28. **Meadows, C. N., B. C. Hilburn, C. A. Carney, J. M. Hennings, M. C. Houle, T. L. Nosovitsky, G. C. Pérez-Alvarado.** Aug 2011. Studies of the LIM domain of the adaptor protein LMO7. Summer Research Program for High School Students 2011, Department of Chemistry and Biochemistry, Southern Illinois University, Carbondale, IL (August 4, 2011).
 29. **Weber, R., J. Shang, S. Geiser, K. H. Cho, G. C. Perez-Alvarado, B. M. Lee.** Aug 2011. Structural characterization of the KH and HD domains of CvfA in *Streptococcus pyogenes*. ACS Project SEED, High School Student Symposium, Neckers Atrium, Southern Illinois University Carbondale, Carbondale, IL.
 30. **Allen, J., D. Merkel, S. Wells, B. Hilburn, B. Hale, F. Elazzouzi, B. Lee.** Aug 2011. Structural characterization of the zinc finger domain of cytoplasmic polyadenylation element binding protein (CPEB). NSF-REU Program, Neckers Atrium, Southern Illinois University Carbondale, Carbondale, IL.
 31. **Plunkett, K., J. Wood, J. Jellison, A. Finke.** Jul 2011. Acetylenes: Nonalternant Cyclopentafused Aromatic Hydrocarbons. ISNA-14, Eugene, OR.
 32. **Wang, L.** Jun 2011. Computational assisted studies of coal solar cells. Presented at the 43rd Midwest Theoretical Chemistry Conference, Notre Dame, IN.
 33. **Sun, K., M. Zhang, L. Wang.** Jun 2011. Towards developing the reactive force field for direct synthesis of ethyl acetate from ethanol on Cu catalysts. Presented at the 43rd Midwest Theoretical Chemistry Conference, Notre Dame, IN.
 34. **Ubaldo, P., C. Mason, L. Wang.** Jun 2011. Theoretical studies of the interaction between nano-silver and model HepG2. Presented at the 43rd Midwest Theoretical Chemistry Conference, Notre Dame, IN.
 35. **Weerasinghe, K., Q. A. Best, N. Sattenapally, D. J. Dyer, M. Mccarroll, C. Scott, L. Wang.** Jun 2011. Theoretical and experimental studies of longer wavelength silicon analog of rhodamine as a fluorescent based sensor. Presented at the 43rd Midwest Theoretical Chemistry Conference, Notre Dame, IN.

36. **Potturi, H. K. , R. K. Gurung, Y. Hou.**Jun 2011.Unexpected N-nitrosation-dealkylation of N,N-dialkylanilines by iodane/quaternary ammonium halide in nitromethane.Presented at the National Organic Symposium, Princeton, NJ.
 37. **Whiting, N., M. Barlow, H. Newton, L. Walkup, P. Nikolaou, B. Goodson.**Jun 2011.Improved production of hyperpolarized xenon using cesium/xenon spin-exchange optical pumping with high-power, frequency-narrowed laser diode arrays and high xenon partial pressures.Frontiers in Biomedical Imaging III conference, Vanderbilt, TN.
 38. **Nikolaou, P., A. Coffey, L. Walkup, B. Gust, N. Whiting, G. Moroz, M. Rosen, E. Chekmenev, M. Barlow, S. Patz, B. Goodson.**Jun 2011.Towards the Development of an 'Open-Source' High Volume ¹²⁹Xe/SEOP Apparatus for Potential Application in Human Lung Imaging and NMR/MRI Studies of Porous Materials.Frontiers in Biomedical Imaging III conference, Vanderbilt, TN.
 39. **Ye, J., Q. Ge.**May 2011.A DFT characterization of surface reactivity of B-Mo₂C(001) and (110) toward CO, CO₂ and O₂.Presented at the 43rd Midwest Theoretical Chemistry Conference, Notre Dame, IN.
 40. **Carney, C. A. , P. S. Katugampola, M. C. Houle, K. H. Cho, B. M. Lee, G. C. Pérez-Alvarado.**May 2011.Structural characterization of the HD domain and the correlation to its metal-dependent enzymatic activity.St. Louis Area Undergraduate Research Symposium, Touch of Nature Conference Center, Carbondale, IL (May 7, 2011).
 41. **Carney, C. A. , P. S. Katugampola, M. C. Houle, K. H. Cho, B. M. Lee, G. C. Pérez-Alvarado.**Apr 2011.Structural characterization of the HD domain and the correlation to its metal-dependent enzymatic activity.Undergraduate Research Forum, Southern Illinois University, Carbondale, IL .
 42. **Geiser, S., B. Hilburn, R. Webber, G. C. Perez-Alvarado, K. H. Cho, B. M. Lee.**Apr 2011.The K homology domain in conserved virulence factor A from *Streptococcus pyogenes*.The Undergraduate Research Forum, Southern Illinois University Carbondale, Carbondale, IL.
 43. **Colleen Scott, Milind Bisen, Tamara Hill .**Mar 2011.New Developments in the Synthesis and Characterization of a RGD-Functionalized Conducting Polymer for the use as a Nerve Guidance Channel.241th National Meeting of the American Chemical Society, Anaheim, CA.,(Oral Presentation).
 44. **Colleen Scott, Daniel Dyer, Gary Kinsel, Bojan Mitrovic, Stephanie Eastwood, Venney Wong.**Mar 2011.Polymer Brush Nanosponges for Protein Separations.241th National Meeting of the American Chemical Society, Anaheim.(Oral Presentation Session Chair).
 45. **Scott, C.**Feb 2011.Progress towards the Synthesis of a RGD-Functionalized Conducting Polymer for the use as Nerve Guidance Channel.University of Washington, Seattle, WA.(Poster).
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