## LYNN VOGEL KOPLITZ Vicknair Distinguished Professor of Chemistry Loyola University New Orleans

### **EDUCATION**

1986	Ph.D., Chemistry, Princeton University
1983	M.A., Chemistry, Princeton University
1981	B.S., Chemistry, summa cum laude, Muhlenberg College

### **EMPLOYMENT**

2013-	Chairperson, Chemistry Department, Loyola University, New Orleans, LA
2003-	Professor, Chemistry Department, Loyola University, New Orleans, LA
2004-2006	Director, University Honors Program, Loyola University, New Orleans, LA
2002-2003	Visiting Scientist, Diebold Surface Science Lab, Tulane University, NO, LA
1992-2003	Associate Professor, Chemistry Department, Loyola University, New Orleans, LA
1988-92	Assistant Professor, Chemistry Department, Loyola University, New Orleans, LA
1987-88	Post-doctoral Research Associate, Chemistry Department, UCLA
fall 1987	Adjunct Assistant Professor, Chemistry Department, UCLA
1986-87	Visiting Assistant Professor, Chemistry Department, Pomona College,
	Claremont, CA

## HONORS AND AWARDS

Vicknair Chair, Distinguished Professor of Chemistry 2008-Marquette Faculty Fellow 2007, 2009, 2013 (competitive internal research award) Dux Academicus 2006 (highest university award for teaching, scholarship and service) Honors Professor of the Year 2005 University Senate Community Service Award 2005

## **RESEARCH INTERESTS**

Physical chemistry, especially spectroscopy, with applications to materials science, environmental studies, geochemistry, and photochemistry; hydrogen bonding in cyanomethylpyridinium salts; computational chemistry; copper/zinc oxide surface science; sediments and aqueous solutions of environmental and geochemical interest.

#### AFFILIATIONS

American Association of University Professors American Chemical Society Council on Undergraduate Research Phi Beta Kappa

## **COURSES TAUGHT (\* created course)**

\*Accelerated Gen Chem (Loyola) \*Advanced Topics in Physical Chemistry (Loyola) Chemical Literature (Loyola) \*Chemistry in Global Climate Change, University Honors Program (Loyola) \*Chemistry in the Environment, non-science majors (Loyola) \*Energy, University Honors Program (Loyola) \*Environmental Chemistry, science majors (Loyola) General Chemistry Lecture (Loyola, UCLA) General Chemistry Lab (Loyola, Pomona College) \*Global Energy Resources Study Group, upper-level chemistry elective (Loyola) \*Group Theory (Loyola) Honors Independent Project (Loyola) Honors Thesis Orientation (Loyola) Inorganic Chemistry (Loyola) \*Integrated Lab I&II (Lovola) Instrumental Analysis (Loyola, Pomona College, Princeton) Introductory Chemistry, non-science majors (Loyola) \*Modern Analytical (Loyola) \*Molecular Modeling Workshop Physical Chemistry (Loyola, Pomona College) \*Renaissance Readers, University Honors Program service learning (Loyola) \*Renewable Energy (Loyola) \*Special Gen Chem Lab (Loyola) \*Truth In Numbers, Freshmen Seminar (Loyola, with Maria Calzada)

#### PUBLICATIONS

#### Books

"Vibrational and Electronic Spectroscopy of Hydrothermal Systems," M. Buback, D.A. Crerar, and **L.V. Koplitz,** 26 pages in *Hydrothermal Experimental Techniques*, H.L. Barnes and G.C. Ulmer (eds.), Wiley-Interscience, 1987, 523 pages.

J. Krenos, J. Potenza, L.V. Koplitz and T.G. Spence. *Student Study Guide and Solutions Manual for Atkin's and Jones's "Chemical Principles: The Quest for Insight."* 3e. New York: W.H. Freeman and Co., 2005, 524 pages.

T.G. Spence and L.V. Koplitz. Instructor's Resource Manual for Atkin's and Jones's "Chemical Principles: The Quest for Insight." 3e. New York: W.H. Freeman and Co., 2005, 550 pages.

#### **Journal Articles**

1. "A Spectroscopic Study of Fe(II) Complexes in LiCl-DCl-D<sub>2</sub>O Solutions," L.V. **Koplitz**, D.S. McClure, and D.A. Crerar, *Inorganic Chemistry*, **26**, 308 (1987).

2. "Laser-driven chemical vapor deposition of platinum at atmospheric pressure and room temperature from CpPt(CH<sub>3</sub>)<sub>3</sub>," **L.V. Koplitz**, D.K. Shuh, Y.-J. Chen, R.S. Williams and J.I. Zink, *Applied Physics Letters*, **53**, 1705 (1988).

3. "Using Lasers to Understand and Control the Chemistry of Semiconductor-Related Precursors," B. Koplitz, V. Panayotov, K. Hamar, K. Birdwhistell, **L.V. Koplitz**, T.L.T. Birdwhistell, X. Xu, S. Deshmukh, and J.L. Brum, *SPIE Proceedings*, **1804**, 79, (1992).

4. "Temperature Dependence of 10Dq for Aqueous Hexaaquomanganese(II)," L.V. Koplitz, K. Kim, and D.S. McClure, *Inorganic Chemistry*, **33**, 702 (1994).

5. "Determining Lead in Sediments by X-Ray Fluorescence and the Method of Standard Additions," L.V. Koplitz, J. Urbanik<sup>\*</sup>, S. Harris<sup>\*</sup>, and O. Mills, *Environmental Science and Technology*, **28**, 538 (1994).

6. "The Impact of Hurricane Andrew: Changes in the Texture and Chemistry of Barataria Estuary Bottom Sediments," G.C. Flowers, **L.V. Koplitz**, G.L. McPherson, *Gulf Coast Association of Geological Societies Transactions*, **45**, 189 (1995).

7. "Impact of Industrial Effluent Diversion on Bayou Trepagnier, Louisiana," G.C. Flowers, J.N. Suhayda, J.W. Clymire, G.L. McPherson, **L.V. Koplitz**, M.A. Poirrier, *Environmental & Engineering Geoscience*, Vol. **IV**, No. 1, Spring 1998, pp.77-91.

8. "The influence of weak hydrogen bonds on the properties of 3-cyano-Nmethylpyridinium chloride and iodide," **L.V. Koplitz**, K.D. Bay \*, N. DiGiovanni \*, J.T. Mague, *Journal of Chemical Crystallography* **33**, 391-402 (2003).

9. "STM Study of Copper Growth on ZnO(0001)-Zn and ZnO(000bar1)-O surfaces," L.V. Koplitz, O. Dulub, U. Diebold, *Journal of Physical Chemistry B*, **107(38)**, 10583-10590 (2003).

10. "Atomic-Scale Properties of Low-Index ZnO Surfaces," U. Diebold, L. Koplitz, O. Dulub, *Applied Surface Science*, **237**, 336-342 (2004).

11. "3-Cyano-N-methylpyridinium bromide," Joel T. Mague, Ryan M. Ivie\*, Robert W. Hartsock\*, Lynn Vogel Koplitz, Mary Spulak\*, *Acta Crystallographica*, E**61**,0851-0853 (2005).

12. "Development of a Method for Investigating Carbon Removal Processes During Photoassisted Film Growth Using Organometallic Precursors: Application to Platinum," John J. Cahill, Valentin G. Panayotov, Kenneth A. Cowen, Ernest Harris, Lynn V. Koplitz, Kurt Birdwhistell, Brent Koplitz, J. Vac. Sci. Tech. A, 25(1), 104-109 (2007).

13. "3-Cyano-N-methylpyridinium chloride," ICDD (2011). Powder Diffraction File Inorganic and Organic Data Book, edited by Dr. Soorya Kabekkodu (International Centre for Diffraction Data, Newtown Square, PA USA), Set 61, PDF 00-0611-1184.

14. "3-Cyano-N-methylpyridinium iodide," ICDD (2011). Powder Diffraction File Inorganic and Organic Data Book, edited by Dr. Soorya Kabekkodu (International Centre for Diffraction Data, Newtown Square, PA USA), Set 61, PDF 00-0611-1185.

15. "2-Cyano-1-methylpyridinium nitrate," Lynn V. Koplitz, Joel T. Mague, Michael N. Kammer\*, Cameron A. McCormick\*, Heather E. Renfro\*, David J. Vumbaco\*, *Acta Crystallographica*, E68, 01653 (2012).

16. "4-Cyano-1-methylpyridinium bromide," Michael N. Kammer\*, Joel T. Mague, Lynn V. Koplitz, *Acta Crystallographica*, E68, o2409 (2012).

17. "4-Cyano-1-methylpyridinium iodide," Michael N. Kammer\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica*, E68, o2514 (2012).

18. "4-Cyanoanilinium bromide," David J. Vumbaco\*, Michael N. Kammer\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica*, E68, o2884 (2012).

19. "4-Cyanoanilinium iodide," Joel T. Mague, David J. Vumbaco\*, Michael N. Kammer\*, Lynn V. Koplitz, *Acta Crystallographica*, E68, o2623 (2012).

20. "Ideal Molecular Conformation vs. Crystal Site Symmetry," Pascal, Robert; Wang, Christal; Wang, Grace; **Koplitz, Lynn**, *Crystal Growth & Design*, (2012), 12(9), 4367-4376.

21. "4-Cyano-1-methylpyridinium nitrate," Cameron A. McCormick\*, Vu Nguyen\*, Heather E. Renfro\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica* E69, o981 (2013).

22. "2-Cyano-1-methylpyridinium iodide," Michael N. Kammer\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica*, E69, o1281 (2013).

23. "2-Cyanoanilinium iodide," David J. Vumbaco\*, Michael N. Kammer\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica*, E69, o1288 (2013).

24. "4-Cyano-1-methylpyridinium perchlorate," Vu Nguyen\*, Cameron A. McCormick\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica*, E70, o756 (2014).

25. "3-Cyano-N-methylpyridinium perchlorate," Cameron A. McCormick\*, Vu Nguyen\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica*, E70, 0811 (2014).

26. "Crystal structure of 2-cyano-N-methylpyridinium tetrafluororate," Francesca A. Vaccaro\*, Lynn V. Koplitz, Joel T. Mague, *Acta Crystallographica*, E71, o697 (2015).

27. "Crystal structure of 2-cyano-1-methylpyridinium perchlorate," Vu Nguyen\*, Cameron A. McCormick\*, Joel T. Mague , Lynn V. Koplitz, *Acta Crystallographica*, E71, 0852 (2015).

28. "Crystal structure of 2-cyano-1-methylpyridinium bromide," Vu Nguyen\*, Cameron A. McCormick\*, Robert A. Pascal, Jr., Joel T. Mague , Lynn V. Koplitz, *Acta Crystallographica*, E71, 0854 (2015).

29. "Two red salts derived from yellow 4-cyano-1-methyl iodide: 1,1',1"-trimethyl-4,4',4"-(1,3,5-triazin-2,4,6-triyl)tripyridinium trisiodide and 4-cyano-1-methyl triiodide," Vu. D. Nguyen\*, Cameron A. McCormick\*, Francesca A. Vaccaro\*, Clifton J. Stephenson, Kevin E. Riley, Joel T. Mague, Lynn V. Koplitz, ACCEPTED *Polyhedron* 2/23/2016 (INVITED). doi:10.1016/j.poly.2016.02.032

**PRESENTATIONS** (\* undergraduate co-author, presenter(s) underlined)

1. "Changes in Coordination Geometry of Ferrous Iron as a Function of Temperature and Chloride Concentration in Hydrothermal Solutions," <u>L.M. Vogel</u>, D.S. McClure, and D.A. Crerar, Eos, *Transactions of the American Geophysical Union* **65**, 1123 (1984).

2. "Spectroscopic Investigations of Aqueous Iron Chloride Complexes," <u>L.M. Vogel</u>, D.A. Crerar, and D.S. McClure, poster presented at the Inorganic Geochemistry Gordon Conference, August 1985.

3. "Making and Breaking Molecules: From Synthesis to Laser Photochemistry," <u>L.V. Koplitz</u> and K.R. Birdwhistell, talk presented at the American Association for the Advancement of Science Annual Meeting, February 1990. INVITED

4. "Photochemistry of Metalorganic Compounds Relevant to Excimer Laser-Assisted Vapor Deposition," <u>S. Deshmukh</u>, J.L. Brum, B. Koplitz, K. Birdwhistell and **L.V. Koplitz**, poster presented at the National Meeting of the American Institute of Chemical Engineers, November 1990.

5. "Determining Speciation of Aqueous Transition-Metal Ions by Factor Analysis of Electronic Absorption Spectra," <u>L.V. Koplitz</u> and J. Urbanik<sup>\*</sup>, talk, American Chemical Society 42nd SE/SWCombined Regional Meeting, New Orleans, December 1990. INVITED

6. "The Role of Aqueous Iron in CO<sub>2</sub> Uptake: Direct Chemical Effects," <u>L.V. Koplitz</u>, <u>S.Harris</u><sup>\*</sup>, J. Urbanik<sup>\*</sup> and R. Gross III<sup>\*</sup>, poster, American Chemical Society 203rd National Meeting, San Francisco, April 1992.

7. "Measuring Pb in Sediments by XRF," <u>J. Urbanik</u><sup>\*</sup>, S. Harris<sup>\*</sup>, Remy Gross III<sup>\*</sup> and L.V. **Koplitz**, poster, American Chemical Society 48th SW Regional Meeting, October 1992. *Received 2nd Place out of 24 undergrad presentations*.

8. "Detecting Contaminants in Sediments by X-Ray Fluorescence," <u>J.Urbanik</u>\*, S. Harris\* and **L.V. Koplitz**, talk, Baylor University, November 1992.

9. "Spectroscopic Characterization of Aqueous Mn(II) Complexes at Elevated Temperatures," **L.V.Koplitz**, K. Kim and D.S.McClure, Eos, *Transactions of the American Geophysical Union* **74**, 322 (1993).

10. "Having It All: Professor, Wife, and Mother," **L.V. Koplitz**, Federal Women's Program, U.S. Food and Drug Administration, New Orleans, April 6, 1993. INVITED

11. "Sediment Analysis by X-Ray Fluorescence: An Environmental Chemistry Experiment," L.V.Koplitz, talk, American Chemical Society 207th National Meeting, San Diego, March 1994.

12. "Sediment Analysis by X-Ray Fluorescence: An Environmental Chemistry Experiment," L.V.Koplitz, <u>C. Lanier\*</u>, R. Bu Contreras\*, and E. Hopkins\*, poster, American Chemical Society 207th National Meeting, San Diego, March 1994.

13. "Movement of Heavy Metal Contamination Out of Bayou Trepagnier," <u>L.V. Koplitz</u>, R. Bu Contreras<sup>\*</sup>, J. Green<sup>\*</sup>, E. Hopkins<sup>\*</sup>, C. Lanier<sup>\*</sup>, J.M. Smith<sup>\*</sup>, J. Dillon<sup>\*</sup>, and R. Gross III<sup>\*</sup>, Basics of the Basin Symposium, New Orleans, May 26 & 27, 1994.

14. "Studying Transport of Metals Out of a Contaminated Louisiana Bayou," <u>L.V. Koplitz</u>, poster, Fifth National Conference of the Council of Undergraduate Research, Bates College, Lewiston, Maine, June 23-25, 1994.

15. "Canoes, Mud, and X-rays," <u>L.V. Koplitz</u>, presentation given to Loyola University Physics Department, May 1995. INVITED

16. "Distribution and Behavior of Heavy Metals in Bayou Trepagnier, Norco, Louisiana," **L.V.Koplitz**, A.T. Nguyen\*, G.C. Flowers, G.L.McPherson, J. Clymire, J. Dowling\*, S. Ramirez\*, poster presented at the Workshop on Metal Speciation and Contamination of Surface Water, Jekyll Island, Georgia, June 25-28, 1995.

17. "Observations, Models, and Inferred Modes of Heavy Metal Transport Using Sediment Analyses," A.T. Nguyen\*, <u>L.V. Koplitz</u>, poster presented at the Geological Society of America Annual Meeting, New Orleans, November 6-9, 1995.

18. "Toward an Understanding of Carbon Removal Pathways in the Photoassisted Growth of Pt Films form *Cp*Pt(CH<sub>3</sub>)<sub>3</sub> and *Cp*Pt(CD<sub>3</sub>)<sub>3</sub> Precursors," K. Cowen, <u>J. Cahill</u>, V. Panayotov, K. Birdwhistell, R. Jeansonne\*, L.V. Koplitz, B. Koplitz, poster presented at the XXVIII Annual Mardi Gras Symposium, UNO, New Orleans, February 16, 1996.

19. "Sediment Contaminant Profiles in Bayou Trepagnier Before and After Diversion of Industrial Effluent," <u>L.V.Koplitz</u>, A.T. Nguyen\*, G.C. Flowers, G.L.McPherson, J. Clymire, J. Dowling\*, S. Ramirez\*, W. Washington, Basics of the Basin Symposium, SLU, Hammond, LA, May 30&31, 1996.

20. "A Comparison of XRF and ICP Analyses of Sediment from Engineer's Canal, Norco, LA," <u>A.T. Nguyen\*</u>, **L.V. Koplitz**, P.L. Burnside, poster, American Chemical Society 212th National Meeting, Orlando, FL, August 1996.

21. "Laser-Induced Thin Film Deposition of Metals," J. Cahill, E.Harris, R.Watson\*, L.Koplitz, K.Birdwhistell, B.Koplitz, poster, DOE/EPSCoR Annual Conference, New Orleans, LA, October 1-2, 1998.

22. "Developing a Fluorometric Method to Determine Monochloramine Levels in Treated Waters," <u>Kevin D. Bay\*, Neil M. DiGiovanni\*</u>, J. Cahill, Jr., M.C. Kelly, **L.V. Koplitz**, F.E. Scully, poster, 52<sup>nd</sup> SE - 56<sup>th</sup> SW Combined Regional Meeting of the American Chemical Society, New Orleans, LA, December 6-8, 2000.

23. "Unknown Cobalt Ammine Chemistry: An Integrated Inorganic Lab," <u>K. Birdwhistell</u>, L.V. **Koplitz**, 53<sup>rd</sup> Southeast Regional Meeting of the American Chemical Society, Savannah, GA, September 23-26, 2001.

24. "Using Mass Spectrometric Methods to Study Carbon Removal Processes During Metal Film Growth," <u>B. Koplitz</u>, J. Cahill, K. Birdwhistell, **L.V. Koplitz**, *Proceedings of the 50<sup>th</sup> ASMS Conference in Mass Spectrometry and Allied Topics*, Orlando, June 2-6, 2002.

25. "Toward Understanding the Sulfur Cycle in the LaBranche Wetlands," <u>L.V. Koplitz</u>, K.D. Bay\*, N. Cantrell\*, Environmental State of the State Conference, University of Louisiana at Lafayette, October 11, 2002. INVITED

26. "Using the Personal Response System to Enhance Student Engagement," <u>Lynn Koplitz</u>, Tech Savvy Soiree, Monroe Library User Education Team, Loyola University New Orleans, October 24, 2003. INVITED

27. "PIES: Innovation Across the Curriculum," Maria Calzada, <u>Lynn Koplitz</u>, Melanie McKay, Steve Scariano, Thomas Spence, Soup and Substance Lunch for the Faculty, Loyola University New Olreans, October 28, 2003. INVITED

28. "PRS and PIES," <u>L.V. Koplitz</u>, presentation to the Academic and Faculty Affairs Committee of the Board of Trustees, Loyola University New Orleans, March 5, 2004. INVITED 29. "Leading Effective Discussions with Students," Kate Adams, Nancy Anderson, Peter Burns, Eileen Doll, <u>Lynn Koplitz</u>, Mary McCay, Maureen Shuh, Faculty Dialogue Session for summer orientation leaders, sponsored by the First Year Experience/A&S Dean's Office, April 30, 2004. INVITED

30. "Bayou Trepagnier, Louisiana: A Natural Laboratory for Studying Contaminant Fate and Transport in Polluted Wetlands," <u>G. Flowers</u>, F. Marcantonio, T.S. Bianchi, B.A. McKee, G. McPherson, **L.V. Koplitz**, 32<sup>nd</sup> International Geologic Conference, Florence, Italy, August 20-28, 2004.

31. "Crystal Structure and Weak Hydrogen Bonding in the 3-Cyano-N-methylpyridinium Halides," <u>Faheem Iqbal\*, Ryan Ivie\*, Mary Spulak\*</u>, Lynn Vogel Koplitz, First Annual Student Project Showcase, Loyola University New Orleans, April 7, 2005.

32. "Using Computational Methods to Investigate Hydrogen Bonds in 3-Cyano-Nmethylpyridinium Halides," <u>Mary Spulak\*</u>, Ryan Ivie\*, Andrew Greenwood\*, Lynn V. Koplitz, MERCURY Conference, Hamilton College, July 2005.

33. "Exotic Hydrogen Bonding in the 3-cyano-N-methylpyridinium Crystal System," <u>Mary Spulak</u>\*, Ryan Ivie\*, Kim Baldridge, **Lynn Koplitz**, ACS LA Local Section Undergraduate Research Poster Session, Xavier University, Oct. 3, 2007.

34. "Swept Away: Professional Ethics in the Wake of Katrina," **Lynn Vogel Koplitz**, presentation PROF 4, Division of Professional Relations, 235<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, April 7, 2008. INVITED

35. "The Loyola University New Orleans Biodiesel Project: Batch Production of Biodiesel From Campus Waste," <u>H. Fontenot\*</u>, M. Chatelain\*, B. Hays\*, A. Girau\*, A. Scott\*, J. S. Underwood, and **L. V. Koplitz**. Poster presented at the 61st Southeast Regional Meeting of the American Chemical Society, San Juan, Puerto Rico, October 21-24, 2009.

36. "Major metal ion, sulfate and chloride concentrations in Lake Pontchartrain, Louisiana, November 2009," Lynn V. Koplitz, <u>Alexander M. Houston</u>\*, Trevor A. Koplitz\*, James Wee. Poster presented at the Joint SE/SW Regional Meeting of the American Chemical Society, New Orleans, LA, December 4, 2010.

37. "Using GCMS to detect dioctylsulfosuccinate, sodium salt," <u>Susan C. Chiasson\*</u>, Deborah A. Grimm, **Lynn V. Koplitz**, Erin K. Grey, Caz M. Taylor. Poster presented at the Joint SE/SW Regional Meeting of the American Chemical Society, New Orleans, LA, December 4, 2010.

38. "Spatio-Temporal Distribution of Deepwater Horizon Oil Spill Compounds in Blue Crab, *Callinectes Sapidus*, Megalopae," <u>Erin K. Grey</u>, Caz M. Taylor, Susan C. Chiasson\*, Lynn V. Koplitz, Deborah A. Grimm, Joseph Sinski, Oral Presentation, abstract #186890, South-Central Section of the Geological Society of America, 45<sup>th</sup> Annual Meeting, New Orleans, LA, March 27-29, 2011.

39. "Detecting Corexit using ESI, GC/MS, and MALDI," <u>Susan C. Chiasson</u>\*, Deborah A. Grimm, **Lynn Vogel Koplitz**, Erin K. Grey, Caz M. Taylor, 241<sup>st</sup> National Meeting of the American Chemical Society, Anaheim, CA, March 27-31, 2011.

40. "Deepwater Horizon Oil Spill Assessment: ESI and GC/MS as analytical methods to detect Corexit in Environmental Samples," <u>S. C. Chiasson</u><sup>\*</sup>, D. A. Grimm, **L. V. Koplitz**, E. K. Grey, C. M. Taylor, Benthic Ecology National Meeting, Mobile, AL, March 16-20, 2011.

41. "Assessing the effects of the Deepwater Horizon oil spill on Blue Crab, *Callinectes sapidus*, megalopae," <u>Erin Grey</u>, Caz Taylor, Susan Chiasson\*, **Lynn Koplitz**, Deborah A. Grimm, Joseph Sinski, Jeffrey Exner, Benthic Ecology National Meeting, Mobile, AL, March 16-20, 2011.

42. "Detecting Corexit dispersants in environmental samples using ESI and GC/MS: Development and application to Deepwater Horizon oil spill assessment," S. C. Chiasson\*, D. A. Grimm, L. V. Koplitz, <u>E. K. Grey</u>, C. M. Taylor, International Symposium on Pollutant Responses in Marine Organisms, Long Beach, CA, May 15-18, 2011

43. "Synthesis and characterization of cyano-N-methylpyridinium and cyanoanilinium salts," <u>M.N. Kammer\*, D.J. Vumbaco\*, L.V. Koplitz</u>, Southwest Regional Meeting of the American Chemical Society, Austin, TX, Nov. 9-12, 2011. (also presented on campus at President;s Open House and University Honors Program poster sessions)

44. "Women in STEM Fields at Loyola," <u>L.V. Koplitz, J.S. Underwood</u>, Student Advocates for Gender Equity, Nov. 7, 2012. INVITED

45. "Implementing Renewable Energy Workshop Activities at Loyola University New Orleans," L.V. Koplitz, T.G. Spence, W.F. Walkenhorst, Division of Chemical Education, 245<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, April 10, 2013. INVITED

46. "Cyclotrimerization of 4-cyano-1-methylpyridinium," <u>Vu D. Nguyen\*, Cameron A.</u> <u>McCormick, Heather E. Renfro</u>, **Lynn V. Koplitz**, Joel T. Mague, Kevin E. Riley, 247<sup>th</sup> National Meeting of the American Chemical Society, Dallas, TX, March 17, 2014. (also presented on campus at President;s Open House poster session spring 2014)

47. "Optimized calculations of layered organic salts," <u>Cameron A McCormick\*, Vu D.</u> <u>Nguyen\*, Francesca A. Vaccaro\*, Lynn V. Koplitz</u>, Kevin E. Riley, Joel T. Mague, 247<sup>th</sup> National Meeting of the American Chemical Society, Dallas, TX, March 17, 2014. (also presented on campus at President;s Open House poster sessions spring 2014, 2015)

48. "A comparison of interaction energies in 2-cyano-1-methylpyridinium salts," <u>Francesca Vaccaro</u>\*, David Olivier\*, <u>Mary Claire Kramer</u>\*, Kevin Riley, Joel T. Mague, Lynn V. Koplitz. Poster 607 presented at the Joint Southeastern/Southwest Regional Meeting of the American Chemical Society, Memphis, TN, Nov. 4-7, 2015. (also presented on campus at President;s Open House poster sessions spring 2016) 49. "Synthesis and characterization of thermochromic pyridinium salts," <u>Erin Larrabee\*, David</u> <u>Olivier\*</u>, Lynn V. Koplitz. Poster 599 presented at the Joint Southeastern/Southwest Regional Meeting of the American Chemical Society, Memphis, TN, Nov. 4-7, 2015.

# **EXTRAMURAL GRANTS**

"Characterization of Chloro-Complexes by Electronic Absorption Spectroscopy and Factor Analysis" Research Corporation, \$24,388 (5/89 - 6/91)

"An Investigation of the Gas-Phase Photochemistry and Decomposition of CpPt(CH<sub>3</sub>)<sub>3</sub>" Louisiana Board of Regents, Visiting Summer Faculty in LaSER program (co-sponsored by NSF) \$5,000 (7/3/89-6/30/90)

"Using Lasers to Understand and Control the Chemistry of Semiconductor-Related Precursors" Louisiana Board of Regents, LVK co-PI with B. Koplitz, \$205,000 total; \$26,520 to Loyola (6/1/90-5/31/93)

"Chemical Controls on the Sinks and Sources of Carbon Dioxide: The Role of Iron" National Institute for Global Environmental Change, DOE, \$37,675 (6/90-6/92)

"Chemistry Relevant to the Fabrication of Electronic Materials," Louisiana Board of Regents, LaSER/NSF EPSCoR Program, Research Cluster Development, LVK co-PI with: B. Koplitz, D.M. Roundhill (Tulane); K.Birdwhistell (Loyola); T.L.T. Birdwhistell (Xavier); C.J. O'Connor (UNO); \$80,000 total, \$10,000 to Loyola (5/91-5/92)

"Integration of Fourier Transform Infrared Spectroscopy Across the Chemistry Curriculum" Louisiana Board of Regents, LEQSF Enhancement Program, LVK co-PI with K.Birdwhistell and L.C. Wilson, \$44,365 (6/93-6/94)

"Center for Photoinduced Processes," NSF/EPSCoR, Gary McPherson (Tulane), Director; LVK co-PI with S. Allen (Tulane), K. Birdwhistell (Loyola), T.L.T. Birdwhistell (Xavier), U. Diebold, (Tulane) M. Herman (Tulane), V. John (Tulane), B. Koplitz (Tulane), L. MacLaren (Tulane), P. Piotrowiak (UNO), V. Ramamurthy (Tulane), W. Reed (Tulane), D.M. Roundhill (Tulane), R. Schmehl (Tulane), M. Sulkes (Tulane), D. Schwartz (Tulane), J. Walz (Tulane), L. Wilson (Loyola); \$580,802 from NSF, \$878,910 from LEQSF; ~\$30,000 to Loyola per year (8/95-7/98).

"Inorganic Synthesis and Laser-Induced Photochemistry Relevant to the Fabrication of Electronic Materials," DOE/EPSCoR, LVK co-PI with B. Koplitz, K. Birdwhistell, T.L.T. Birdwhistell, M. Fink, A. Maverick, and S. Allen, \$485,000 total; \$40,000 to Loyola (10/93-9/95); \$36,838 to Loyola (9/95-9/96) [renewed through 10/99, ~\$25,000 to Loyola annually]

"Geochemical Cycling of Sulfur in the LaBranche Wetlands: Initial Study of a Contaminated Site," J. Bennett Johnston Science Foundation, \$5,000 (8/01-8/02). Inaugural year. Only 20/100 funded.

"Trans-Atlantic Summer Program in Computational Chemistry for Undergraduates," NSF OISE-0718277, \$17,532, Oct. 1, 2007-Sept. 30, 2008.

International Centre for Diffraction Data, Basic and Advanced Rietveld Workshops, Newtown Square. PA, October 19-23, 2009. \$1500 grant to attend (2 grantees per 18 participants for basic, 1 of 15 advanced)

"Absorption Spectrophotometer Upgrades for Essential Support of Teaching and Research," LA BOR Undergraduate Enhancement Program, \$45, 064 request submitted October 25, 2010 (funded June 1, 2011).

"Multiphase Analysis and Solid Structure Determination by Powder X-Ray Diffraction," LA BOR Traditional Enhancement Program, \$90,648 request submitted October 25, 2010 (not funded, though rated highly by external reviewers).

"Developing Next-generation Hybrid Aerospace Materials." FY2013 NASA EPSCoR Pre-Proposal to LA BOR, Scott Grayson, Brent Koplitz (Tulane Chemistry), Abdallah Darwish (Dillard Physics), Patrick Garrity (Loyola Physics), Lynn Koplitz (Loyola Chemistry), Anderson Sunda-Meya (Xavier Physics), Kevin Riley (Xavier Chemistry), Weilie Zhou (UNO Materials Science), \$1.5M (submitted Jan. 2013, not funded)

"Powder X-ray Diffractometer for Research and Teaching," LA Board of Regents, Special Multidisciplinary ENH Program (part of Traditional ENG Program), Lynn Koplitz, \$80,520 (submitted October 2013; not funded)

"Novel Hybrid Materials for Space Application," FY2014 NASA EPSCoR Pre-Proposal to LA BOR, Scott Grayson, Brent Koplitz (Tulane Chemistry), Abdallah Darwish (Dillard Physics), Patrick Garrity (Loyola Physics), Lynn Koplitz (Loyola Chemistry), Anderson Sunda-Meya (Xavier Physics), Kevin Riley (Xavier Chemistry), Weilie Zhou (UNO Materials Science), \$1.5M (submitted to NASA by the State of LA, late March 2014; not funded)

# **INTRAMURAL GRANTS**

"Spectroscopic Studies of Coordination Complexes," G&L Committee, FRG \$2207, F89

"A New Hands-On Science Course for Both Majors and Non-Majors," FD/CD Committee, \$2000, F91

"Molecular Modeling to Enhance Science Courses," Faculty Development/Course Development Committee, \$2500 (awarded spring 02; software site license/lease-to-purchase 3/02-2/15/06)

"Restructuring the Gen Chem Sequence to Engage All Students," Program for Instructional Effectiveness Support (PIES), \$2900, 5/03-05

"Nuclear Power: Its Necessary Role in the Future," Dr. Gregory Choppin, Biever Mini-Grant, \$500, March 2004

"The Role of Weak Hydrogen Bonds in Determining CMPX Structures," G&L Committee, FRG \$2500, S05

"Toward Meaningful Evaluations of Teaching at Loyola University New Orleans," Program for Instructional Effectiveness Support (PIES), \$6000, 2006

"Computational Quantum Chemistry of Model Systems in Collaboration with the University of Zurich," G&L Committee, FRG \$2100, S07

"Trans-Atlantic Summer Research Project in Computational Chemistry with the University of Zurich," G&L Committee, FRG \$2500, S08

"Probing Nanostructures by Computational and X-Ray Diffraction Methods," G&L Committee, Marquette Faculty Fellowship, \$8000, S09

"Model Kits for Effective Teaching of Solid-State Chemistry and Physics," FD/CD Committee, \$3168, awarded S11 (ultimately funded through Tech Fee funds)

"Synthesis and Crystal Structure Determinations of 2- and 4- Cyano-N-methylpyridinium Salts," Summer Collaborative Outreach and Research Experience (SCORE), \$3400, Summer 2011 (support for one student researcher)

"New C<sub>7</sub>H<sub>7</sub>N<sub>2</sub>X Crystal Structures and Computed Non-Covalent Interaction Energies for Supramolecular Design," Internal Grants Committee, Marquette Faculty Fellowship, \$10,000, \$13

# WORKSHOPS AND CONFERENCES (most recent 10 years)

NSF-sponsored participant, "Center for Workshops in Chemical Sciences: Modeling Biomolecules, Jackson State University, Jackson, MS, June 5-9, 2006 15<sup>th</sup> Conference on Current Trends in Computational Chemistry, Jackson State University, Jackson, MS, November 3-4, 2006 Materials Research Society National Meeting, San Francisco, CA, April 2009 International Centre for Diffraction Data, Basic and Advanced Rietveld Workshops, Newtown Square. PA, October 19-23, 2009 American Chemical Society National Meeting, San Francisco, April 2010. NSF-ADVANCE Summit Meeting for Senior Women Faculty in Chemistry and Physics at Liberal Arts Colleges, Washington, D.C., June 2-4, 2010 NSF-sponsored participant, "Center for Workshops in Chemical Sciences: Renewable Energy, Beloit College, Beloit, WI, July 11-16, 2010 CIC Workshop for Chairpersons and Heads, Albuquerque, NM, June 2013 American Chemical Society National Meeting, Dallas, TX, March 2014 Southeast Chemistry Chairs Annual Meeting, UAB, April 2-4, 2015 SAAHP/NAAHP, New Orleans, May 26-29, 2015

Master of Arts in Teaching Workshop, Loyola NO, June 3, 2015 AAUW Start Smart Workshop, Salary Negotiator Facilitator Training, Tulane, Oct. 9, 2015 American Chemical Society Regional Meeting, Memphis, TN, November 2015

#### **UNIVERSITY SERVICE** (reverse chronological order)

Admissions Ad Hoc Committee, 10/29/15-Curriculum Committee, elected 5/15-Chairperson, Chemistry Department, 8/1/13-16 Chairperson, Departmental Search Committee (Phys/Exptl Chemist), F14 Pre-Health-Professions Committee, Chairperson, summer 2015-Summer School Working Group, appointed, June 25, 2014 HNS College Planning Team, appointed spring 2014-fall 2014 HNS Dean Search Committee, Chemistry Dept. Representative, appointed 5/12-3/13 Pre-Health Professions liaison, appointed 2012-13 Salary Oversight and Review Committee, elected 11/4/03-S05, S08, Chair F08-S09 University Budget Committee (Senate Rep), elected 5/03-8/04 and 5/07-5/09 Dux Academicus Selection Committee, appointed and served F02, S08, F08 Departmental Representative to the University Senate 1989-1990, S2007-S2008 Intercollegiate Athletics Committee (Senate Rep), elected 9/06-5/09 Departmental Proctor, Majors Exit Exam, 5/14/07, 4/08, 4/09 Director, University Honors Program, appointed 8/04-7/06 Ignatian Scholarship Selection Committee, appointed F01, served S02; 8/04-2/06 College Rank and Tenure Committee, elected S97-S00; 11/11/03-S05 Chairperson, Phi Beta Kappa Committee, S97-S02, 6/03- (inactive since 2006) Chairperson, Choppin Wing Planning Team, 12/03-05 Faculty Handbook Revision Committee's Task Force for Shared Governance elected Natural Sciences representative, 10/20/03-8/04 A&S Salary Distribution Task Force, elected S02, served F02-S03 Chairperson, Departmental Search Committee (Anal. Chemist), F01-S02 PK-16+ Teacher Education Council, appointed S01-Departmental Keck CLF AV/Furniture Committee, S01-F07 Environmental Studies Minor Faculty, 1992-Academic Advisor to Chemistry Majors, F89 -Chairperson, Departmental Search Committee (Organic Chemist), F99-S00 President's Open House Participant, S97, S98, S99, S06 Chairperson, Departmental Search Committee (Physical Chemist), F98-S99 Clare Booth Luce Scholarship Selection Committee, appointed F97-S99 Retention Task Force, Instructional Effectiveness Committee, appointed F98 Chairperson, Departmental Search Committee (Biochemist), F96-S97 Environmental Studies Committee to Interview Loyola Chair Candidates, S96 Contributor to University Promotional Video for the Capital Campaign, 7/96 Coordinator of Departmental In-Depth Program Review, Document Author, F95 - S96 Chairperson, Departmental Search Committee (1 yr. replacement), F95 - S96 Departmental Outcomes Assessment Document Author, F94 - S95

Institutional Self-Study Steering Committee member, Co-Chairperson of the Committee on the Faculty Standard for the SACS Self-Study, apptd. Jan. 93-S95 Fringe Benefits Committee - University Senate Representative - elected S90-S93 Student Affairs Policy Advisory Committee (89-91) Departmental Recruiting Coordinator (89-91) Departmental Representative for the campus United Way Drive (89)

#### **PROFESSIONAL SERVICE**

Science Outreach, demos & N<sub>2</sub>(1) ice cream, w/ Chem Club, ASH 4<sup>th</sup> grade, 5/7/15 Women in Science, presentation and demonstration, McGehee School, 5/22/2014 Reviewer, inorganic chemistry grant, 2010 President, Loyola University AAUP Chapter, elected 5/07-5/09 Louisiana Delegate, Assembly of State Conferences, AAUP, elected 5/-07 Louisiana Conference non-ASC AAUP Delegate, elected 5/07 Vice-President, Loyola University AAUP Chapter, elected 10/06-5/07 Reviewer, Geochemical Transactions, S05 Panel member, "Balancing Career and Family," Women's Studies, Loyola, March 15, 2005. Reviewer, Chemical Principles 3e, Peter Atkins and Loretta Jones, W. H. Freeman and Co., 2003. Reviewer, Journal of Chemical Crystallography, F02 Reviewer, Essential Chemistry: A Core Text for General Chemistry, 2e (for 3e), Raymond Chang, McGraw-Hill, 2000. Participant, LaCEPT Mini-Conference for Education, Math& Sciences, Loyola, Dec. 13, 2000. Judge, High School Science Fair, John Curtis Christian School, S2000 Instructor, CLARESE Environmental Science Program for High School Teachers, summer 99 Instructor, LaSIP Environmental Science Program summers 93-97 Reviewer, Environmental Science and Technology, S97 Reviewer, Inorganic Chemistry, 2e, Miessler and Tarr, Prentice Hall, 1997. Reviewer, Chemical Geology, S96 Reviewer, Geochimica et Cosmochimica Acta, S93 Panel member, "Women and Careers in the Life Sciences and Chemistry," round-table discussion, Loyola, March 18, 1993. Reviewer, Chemistry 2e, Radel and Navidi, West, 1992. Judge and Facilitator, State Science Olympiad, Loyola University, S89, S90

### **COMMUNITY SERVICE**

Jazz Fest Beer Booth #2 Cashier/Server, Charity Fundraiser, April/May 1998-present Feral Cat Spay/Neuter Volunteer, Pine Street Colony, 2001-present

St. Bernard Project, Jan. 2009, Sept. 18 & Oct. 2, 2010

Volunteer Facilitator for Recovery School District; 42 Gen Chem students painted at Sarah T. Reed HS, 4/21/07; 20 Gen Chem students painted at Live Oak Elementary School, 11/3&10/07

Operation Playground KaBoom! Build Day at Henderson Elementary, August 2007

Science Fair Judge, BFHS 1/23/07

Soil sampling and analysis for Recovery School District

(6 elementary schools, for playgrounds through Fannie Mae and Kaboom!) 1/2007

BFHS Substitute Chemistry Teacher 8/14-25/06

BFHS Battle of the Bands contributor, S05

Renaissance Readers Developer and Coordinator, F04-S05

BFHS Class of '06 Sweet 16 Invitation Design and Distribution Chairperson, S04

BFHS Girls Basketball booster, F02-S06

Lusher School Crawfish Boil Fundraiser Volunteer, every April 1994-2004 Troubleshooter, Beer Booth Attendant, Arts& Crafts Booth, Snoball Booth, Drinks Helper, Frog Smash Booth, Sand Sculptures, Crawfish Race, Sports Cards Booth, Balloon Darts, Helium Balloon Supplier, Setup, Teardown, Cleanup...

Multimedia science activity, "What is a salt?" with Lusher Elementary 5<sup>th</sup> Graders, October 1, 2001 (Powerpoint with a movie of dissolving salt, examination of crystals with a microscope, testing for endo/exothermic dissolution, and conductivity testing with a light bulb device), NOCTIITE Grant

National Chemistry Week Volunteer, LA Children's Museum, November 1999

Assistant Soccer Coach, Carrollton League U-8 Boys "Magic Box Kickers," fall 99

Assistant Baseball Coach, Carrollton League 5&6 Co-ed "Red Ninjas," summer 97

Assistant Soccer Coach, Carrollton League U-6 Co-ed "Legacy Leopards," fall 97

Cookie Mom, Brownie Troop 332, spring 95, spring 96

Assistant Soccer Coach, Carrollton League U-8 Girls "Green Beans," fall 95