Curriculum Vitae James A. Zimmerman

Associate Vice Provost for Teaching and Learning	Work Phone:	(209)-228-4761
University of California-Merced	Mobile:	(862)-596-9813
5200 N. Lake Rd.	Email Address:	
Merced, CA 95343	jzimmerman6@u	ıcmerced.edu

Strengths (signature themes): Strategic, Learner, Individualization, Self-Assurance, Analytical

EMPLOYMENT / EDUCATION

Director, Christian A. Johnson Institute for Effective Teaching2010 - 2016Associate Professor of Chemistry, Rollins College2010 - 2016Associate Director, Research Academy on University Learning (working under Director Dr. Ken Bain)2007 - 2010Associate Professor of Chemistry, Montclair State University2007 - 2010Associate Professor of Chemistry, Missouri State University2006 - 2007Associate Professor of Chemistry, Missouri State University2002 - 2006Assistant Professor of Chemistry, Missouri State University2002 - 2006Assistant Professor of Chemistry, University of Wisconsin-Marinette1999 - 2002Ph.D., University of Michigan (Chemistry)2000Baer Fellow (Department of Chemistry)1994 - 1996Graduate Student Instructor (Department of Chemistry)1994 - 1999Summer Research Associate (Department of Physics)1996 - 1999B.S., University of Illinois at Urbana-Champaign (Chemistry)1994	Associate Vice Provost for Teaching and Learning	2016 - present
Associate Professor of Chemistry, Rollins College2010 - 2016Associate Director, Research Academy on University Learning (working under Director Dr. Ken Bain)2007 - 2010Associate Professor of Chemistry, Montclair State University2007 - 2010Associate Professor of Chemistry, Missouri State University2006 - 2007Assistant Professor of Chemistry, Missouri State University2002 - 2006Assistant Professor of Chemistry, University of Wisconsin-Marinette1999 - 2002Ph.D., University of Michigan (Chemistry)2000Baer Fellow (Department of Chemistry)1994 - 1996Graduate Student Instructor (Department of Chemistry)1994 - 1999Summer Research Associate (Department of Physics)1996 - 1999B.S., University of Illinois at Urbana-Champaign (Chemistry)1994	Director, Christian A. Johnson Institute for Effective Teaching	2010 - 2016
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	B.S., University of Illinois at Urbana-Champaign (Chemistry)	1994

ACADEMIC ADMINISTRATION ACTIVITIES

- Chair, Technology Enhanced Active Learning Advisory Board, UC-Merced, 2016-present
- Campus Liaison, Innovative Learning Technology Initiative, UC-Merced, 2016-present
- Departmental Learning Outcomes Assessment, 2012-present
- Departmental Curriculum Development, 2012-present
- Pre-Health Advisor, Rollins College, 2014-2016
- Interim Co-director of General Education, Rollins College, 2012-2013
- Member, Diversity Recruitment and Retention Committee, Rollins College, 2011-2016
- Member, Rollins Leadership Committee, Rollins College, 2013-2016
- Member, Assessment Leadership Committee, SACS Reaccreditation 2015, 2012-2016
- Member, Demonstration of Learning Committee, SACS Reaccreditation 2015, 2012-2016
- Co-Chair, Institutional Task Force, Academic Excellence, 2010-2012
- Co-Chair, General Education Implementation Committee, 2011-2013
- New Faculty Orientation, 2010-2016

PROFESSIONAL ACTIVITIES

• International Judge, IBM Teaching with Sakai Innovation Award

- Reviewer, NIH, Research on Interventions that Promote Research Careers
- Reviewer, Journal of Research in Science Teaching
- Reviewer, To Improve the Academy, Faculty, Instructional, and Organizational Development
- NSF Multi-Initiative Dissemination (MID) Workshop Facilitator
- NSF Multi-Initiative Dissemination (MID) Project Presenter
- Past Member, College of Natural, Applied, and Health Sciences Advisory Board, Kean University
- Curriculum Reform Institute Project Mentor
- Reviewer, Tested Demonstrations, Journal of Chemical Education
- Chair, Curricular Challenges Facing Small Departments Symposium, 16th Biennial Conference on Chemical Education

GRANT ACTIVITY

PI (sub-award), Faculty Learning Program, Univ. of California-Berkeley, 2018-2020 (\$82,000) PI, Faculty Learning Hub, Univ. of California-Merced, UCOP, 2017-2019 (\$300,000) PI, ILTI Campus Grant, MOH Awards, Univ. of California-Merced, UCOP, 2017-2020 (\$1.0M) External Assessor, iMagine REU, Montclair State University, NSF/DOD, 2009-2012 (\$355,635) External Assessor, MSPinNYC, Hunter College, NSF (#0412413), 2008-2011 (\$13.1M) PI, SNS Functional Exercise Support, Missouri State University, 2007 (\$144,832) PI, Integrative Learning Program, Southwest Missouri State University, 2004-2006 (\$61,200) PI, State Emergency Management Agency (SEMA) WMD/Radiological Nuclear Awareness Training - Ozarks Public Health Institute (OPHI) 2003-2005 (\$50,000) Key Personnel, Multi-Initiative Dissemination Project, NSF, 2000-2004 (\$896,000) PI, Faculty Research Grant/Summer Fellowship, Southwest Missouri State University, 2003 (\$13,435) Key Personnel, Nuclear Chemistry/Nuclear Physics Grants (2000-2006), NSF (\$1.1M) PI, Student-Centered Pedagogies Development Award, University of Wisconsin – System, 2000 (\$11,401)

PI, Curriculum Reform Institute Award, University of Wisconsin – System, 1999 (\$5,365)

HONORS

Teaching Faculty, Honors College	Rollins College
Faculty Associate, Academic Development Center	Missouri State
University Teaching Fellow Awardee	Missouri State
College of Natural and Applied Sciences Teaching Award	Missouri State
Fellow, Curriculum Reform Institute	Univ. of Wisconsin -System
Fellow, Wakonse Foundation on College Teaching	Univ. of Missouri
University of Wisconsin-System Teaching Fellow	Univ. of Wisconsin-System
Graduate Student Excellence in Teaching Award	Univ. of Michigan
Milton Tamres Master Teacher	Univ. of Michigan
Departmental Graduate Student Teaching Award	Univ. of Michigan

PROFESSIONAL DEVELOPMENT/EDUCATION PUBLICATIONS

- **23. 1.** Zimmerman, J.A. (2017). Academic Libraries and Accreditation: A Theory-Based Framework for Assessing Modern Library Learning Spaces. In S. Montgomery (Ed.) *Assessing Library Space for Learning, pp.* 63-71. Rowman and Littlefield, Lanham, MD.
- **22.** 2. Bain, K.R. & Zimmerman, J.A. (2009). Understanding Great Teaching, *Peer Review, vol. 11(2), pp. 9-12.* Association of American Colleges and University, Washington, DC.
- **20. 3**. Zimmerman, J.A. (2006). The Integrative Learning Project: Disciplinary Impact of SoTL Student Centered Chemistry. In J. Fanghanel & D. Warren (Eds.) *International Conference on the Scholarship of Teaching and Learning, Proceedings 2005 and 2006, pp. 111-117.* City University Press, London, UK.
- **19. 4**. Levesque, C., Sell, G.R., & Zimmerman, J.A. (2006). A Theory-Based Integrative Model for Learning and Motivation in Higher Education. In S. Chadwick-Blossey (Ed.). *To Improve the Academy, vol. 24, pp. 86-103*. Anker Publishing, Bolton, MA.
- 17. 5. Zimmerman, J.A. (2005). After Going Public...What's Next? Fostering a Campus Community Committed to Supporting the Scholarship of Teaching and Learning. In J. Fanghanel & D. Warren (Eds.). *International Conference on the Scholarship of Teaching and Learning, Proceedings 2003 and 2004, pp. 169-177.* City University Press, London, UK.
- **3.** 6. Report on ChemLinks: Changing the Way Students Learn Chemistry. <u>I.A. Zimmerman</u>, Chem Educator **3(1)** (1998), S1430-4171 01171-3 (electronic version).
- 2. 7. Report on Comprehensive Curricular Change at a Small Liberal Arts College: Bioorganic First at Juniata College. J.A. Zimmerman, Chem Educator **3(1)** (1998), S1430-4171 01165-7 (electronic version).
- Report on Chemistry in a Biological Context. <u>J.A. Zimmerman</u>, Chem Educator 3(1) (1998), S1430-4171 01177-8 (electronic version).

PROFESSIONAL DEVELOPMENT/EDUCATION PRESENTATIONS

- 1. Zimmerman, J.A. (2018). Active Learning Faculty Development Adventures: Reflective Teaching Partnerships and Students Assessing Teaching and Learning. Invited Talk, Active Learning Conference, Merced College, Merced, CA.
- 2. Zimmerman, J.A. & Signorini, A. (2017). Faculty Development Adventures: Reflective Teaching Partnerships and Students Assessing Teaching and Learning. International Society for the Scholarship of Teaching and Learning (IS-SoTL) Annual Conference, Calgary, AB, Canada.
- 3. Zimmerman, J.A. (2016). Articulating a Vision for Centers of Teaching and Learning. Invited Talk, Stetson University, DeLand, FL.
- 4. Zimmerman, J.A. (2016). Articulating a Vision for Centers of Teaching and Learning. Invited Talk, North Central College, Naperville, IL.
- 5. Zimmerman, J.A. (2016). Articulating a Vision for Centers of Teaching and Learning. Invited Talk, Colby College, Waterville, ME.
- 6. Zimmerman, J.A. (2015). What is the Future of a Learning and Teaching Center in a Large, Residential Research University? Invited Talk, CRLT, University of Michigan, Ann Arbor, MI.
- 7. Zimmerman, J.A. (2014). Broadening the Impact of a Technology Implementation Grant Program. POD National Conference, Dallas, TX.

- 8. Zimmerman, J.A. (2014). Applied Pedagogical Design: (1) The Why, What, and How of Student Evaluations and (2) Reinvigorating Laboratory Experiences. Invited Workshop, University of Miami, Miller School of Medicine, Miami, FL.
- 9. Zimmerman, J.A. (2012). Reflective Teaching Partnerships: Implementing a Formative Assessment of Teaching Protocol. POD National Conference, Seattle, WA.
- 10. Zimmerman, J.A. (2012). Keynote Speaker, Sixth Annual Conference on Teaching and Learning. Oakland University, Rochester, MI.
- Zimmerman, J.A. (2012). Enhancing Student Motivation and Learning: Aligning Research, Theory and Practice. Seminar, University of Miami, Miller School of Medicine, Miami, FL.
- 12. Zimmerman, J.A. (2011). Constructively Aligned Assessment. Keynote Speaker, Annual Assessment Summit. University of Michigan Flint, Flint, MI.
- Zimmerman, J.A. (2011). From Reflective to Contributing Practitioner: A Faculty Development Model that Fosters Professional Growth. Professional Enhancement Day. IRSC, Fort Pierce, FL.
- 14. Zimmerman, J.A. (2010). Assessing Impact Faculty Development Activities. National Research Committee, POD National Conference, St. Louis, MO.
- 15. Zimmerman, J.A. (2010). STEM Preparing Future Faculty Professional Development Workshop. Keynote Speaker, Wesleyan University, Middletown, CT.
- 16. Zimmerman, J.A. (2010). Understanding and Implementing Great Teaching. University of Michigan-Flint, Flint, MI.
- 17. Zimmerman, J.A. (2010). CETL Professional Development Thoughts and Vision. Kennesaw State University, Kennesaw, GA.
- Mills, P., Zimmerman, J.A., et al. (2010). Peer-Enabled Restructured Classroom (PERC) Model and Results, National Science Foundation, Math-Science Partnership National Conference, Washington DC.
- 19. Zimmerman, J.A. (2009). Articulating the National POD Research Agenda. POD National Conference, Houston, TX.
- 20. Zimmerman, J.A. (2009). STEM Preparing Future Faculty Professional Development Workshop. Keynote Speaker, Wesleyan University, Middletown, CT.
- 21. Zimmerman, J.A. (2009). MSPinNYC: Student Motivation Survey Results. Invited Speaker. Responsive Research Network in Mathematics and Science Education, Hunter College, New York, NY.
- 22. Zimmerman, J.A. (2009). Is the Tail Wagging the Dog? A Theory-Based Method for Assessing the Pedagogical Usefulness of Technology. Plenary Speaker. Annual Faculty Technology Showcase, Bloomfield College, Bloomfield, NJ.
- 23. Zimmerman, J.A. (2008). Bridging theory, research and practice: Aligning educational programming and learning. 33rd Annual Conference of the Professional and Organizational Development (POD) Network in Higher Education, Reno, NV.
- 24. Zimmerman, J.A. (2008). Professional Development Seminar Series. Keynote Speaker, Wesleyan University, Middletown, CT.
- 25. Zimmerman, J.A. (2008). Bridging theory, research and practice: Aligning educational perspectives and student learning. The London Scholarship of Teaching and Learning 7th International Conference, City University, London, UK.
- 26. Zimmerman, J.A. (2007). Learning and motivation in chemistry education: A theorybased integrative model. Invited Seminar, Hunter College, New York, NY.

- 27. Zimmerman, J.A. (2007). Motivation in Academic Settings: Looking Beyond the Carrot and the Stick. Invited Seminar, Teaching and Learning Resource Center, Montclair State University, Montclair, NJ.
- Zimmerman, J.A., Levesque, C. & Sell, G.R. (2006). Bridging Theory, Research and Practice: Ameliorating Educational Perspectives and Student Learning. Conference of the International Society on the Scholarship of Teaching and Learning, Georgetown University, Washington, D.C.
- 29. Zimmerman, J.A., Levesque, C. (2006). All-Faculty Workshop, Faculty-Developed Evaluation of Student Learning, Hesston College, Hesston, KS.
- Zimmerman, J.A., Levesque, C. (2006). All-Faculty Workshop, Motivating Your Students Beyond the Carrot and the Stick: A Theory-Based Integrative Model for Learning and Motivation, Clemson University, Clemson, SC.
- 31. Zimmerman, J.A. (2006). Learning and motivation in chemistry education: A theorybased integrative model. Invited Seminar, Teaching and Learning Laboratory, Massachusetts Institute of Technology, Cambridge, MA.
- 32. Zimmerman, J.A. (2006). Interdisciplinarity in Two Parts: Experimental Nuclear Chemistry and Integrative Learning in the Sciences. Invited Seminar, University of Alabama, Tuscaloosa, AL.
- 33. Zimmerman, J.A., Levesque, C.S., Sell, G.R. (2005). Transforming your campus: Beyond the carrot and the stick. Invited Pre-Conference Workshop 30th Annual Conference of the Professional and Organizational Development (POD) Network in Higher Education, Milwaukee, WI.
- Zimmerman, J.A. (2005). Learning and motivation in chemistry education: A theorybased integrative model. 230th American Chemical Society National Meeting, Washington D.C.
- 35. Zimmerman, J.A. (2005). Teaching and Learning Activities and Opportunities at SMSU: CASTL Committee Updates, Showcase on Teaching, Springfield, MO.
- 36. Zimmerman, J.A., Levesque, C. & Sell, G.R. (2005). All-Faculty Workshop, Transforming your Campus: Moving toward a Learner Centered Community, Hesston College, Hesston, KS.
- 37. Zimmerman, J.A. (2005). The Integrative Learning Project: A Research-Based Model for Integrative Learning and Motivation in Higher Education. 5th Annual International Conference on the Scholarship of Teaching and Learning, City University, London, UK.
- 38. Zimmerman, J.A., McNeilis, K., & Myers, R. (2005). Cultural Shifts at SMSU : Progress in Changing Institutional Structures that Support Teaching and Learning, Carnegie Colloquium on the Scholarship of Teaching and Learning, AAHE Conference, Atlanta, GA.
- Zimmerman, J.A. (2005). Student Centered Chemistry: Motivation, Learning, and Engaging Classroom Environments, Invited Talk, Chemistry Education Seminar Series, University of Michigan, Ann Arbor, MI.
- Zimmerman, J.A. (2004). Cultivating motivation in Learning, Teaching, and Faculty Development. 29th Annual Conference of the Professional and Organizational Development (POD) Network in Higher Education, Montreal, Quebec.
- 41. Zimmerman, J.A., Levesque, C., & Sell, G.R. (2004). Growing a Campus Community of Teaching and Learning Scholars: A Replicable Teaching Fellowship Program. Inaugural Conference of the International Society on the Scholarship of Teaching and Learning, Indiana University, Bloomington, IN.

- 42. Zimmerman, J.A. (2004). The Scholarship of Teaching and Learning at SMSU: Examples of Two Faculty Projects. Showcase on Teaching, Springfield, MO.
- 43. Zimmerman, J.A., Levesque, C., & Sell, G.R. (2004). After Going Public...What's Next? 4th International Conference on the Scholarship of Teaching & Learning (SoTL), City University, London, England.
- 44. Myers, R.L., Zimmerman, J.A., Levesque, C., & Hope, K.L. (2004). Combining Effective Teaching with the Scholarship of Teaching and Learning: A Replicable Teaching Fellowship Program. National Colloquium on the Scholarship of Teaching and Learning, San Diego, CA.
- 45. Zimmerman, J.A. (2004). Student-Centered Pedagogy: Modifying Teaching Methods to Benefit Student Learning Styles. New Traditions Seminar, NSF Multi-Initiative Dissemination Project, Housatonic Community College, Bridgeport, CT.
- 46. Zimmerman, J.A. & Herrick, R.S. (2004). Student-Centered Pedagogy: Modifying Teaching Methods to Benefit Student Learning Styles. New Traditions Seminar, NSF Multi-Initiative Dissemination Project, University of Arkansas-Little Rock, Little Rock, AR.
- 47. Zimmerman, J.A. (2004). Student Centered Chemistry. Gordon Conference on Chemical Education Research, Ventura, CA.
- Zimmerman, J.A. (2003). Student Centered Chemistry Instructional Methods and Curricula. <u>I.A. Zimmerman</u>, Midwest Regional Meeting American Chemical Society, Columbia, MO.
- 49. Zimmerman, J.A. (2003). Feeling (Un)Comfortable: Examining Gender Inequity in the Scientific Academy. Invited Talk, ISIE Seminar Series, University of Michigan, Ann Arbor, MI.
- 50. Zimmerman, J.A. (2003). Student Centered Instructional Methods: Modifying Pedagogies to Benefit Student Learning Styles. University of Wisconsin System Curriculum Reform Institute, Oshkosh, WI.
- 51. Zimmerman, J.A. (2003). Learning Styles: Professors, Students. Wakonse Conference on College Teaching, Shelby, MI.
- 52. Zimmerman, J.A. & Cole, S. (2003). Updating Chemistry Laboratory Curriculum. New Traditions Seminar, NSF Multi-Initiative Dissemination Project, University of Missouri, Columbia, MO.
- 53. Zimmerman, J.A. (2003). Inquiry-Based Laboratories. New Traditions Seminar, Multi-Initiative Dissemination Project, Central Michigan University, Mt. Pleasant, MI.
- Zimmerman, J.A. (2003). Student Centered Chemistry Modifying Chemistry Curricula and Teaching Methods to Benefit Student Learning Styles. 225th American Chemical Society National Meeting, New Orleans, LA.
- 55. Zimmerman, J.A. (2003). Modifying Teaching Methods to Benefit Student Learning Styles. Faculty Workshop, Teaching and Learning Resource Center, University of Louisiana-Monroe.
- 56. Zimmerman, J.A. (2003) Student Centered Chemistry. Invited Talk, Department of Chemistry, University of Louisiana-Monroe.
- 57. Zimmerman, J.A. (2003). Exploring Student Learning Styles in an Academic Environment. Seminar, Teaching and Learning Resource Center, University of Louisiana-Monroe.
- 58. Zimmerman, J.A. (2002) Feeing Uncomfortable in Lab: Confronting Gender Inequity in the Scientific Laboratory. Invited Talk, Arizona State University, Tempe, AZ.

- 59. Zimmerman, J.A. (2002) Curricular Change and your Teaching Style A Perfect Union? University of Wisconsin System Curriculum Reform Institute, Oshkosh, WI.
- 60. Zimmerman, J.A. (2002) Student Centered Chemistry Modifying Chemistry Curricula and Teaching Methods to Benefit Student Learning Styles. Seminar, Southern Illinois University-Edwardsville, Edwardsville, IL, February 2002.
- 61. Zimmerman, J.A. (2002) Student-Centered Pedagogy: Modifying Teaching Methods to Benefit Student Learning Styles. Invited Talk, Eastern Michigan University, Ypsilanti, MI.
- 62. Zimmerman, J.A. (2001) The New Traditions National Chemical Education Reform Project. 157th Two-Year and Community College Chemistry Conference, Las Vegas, NV.
- 63. Zimmerman, J.A. (2001) Active Teaching and Learning Styles. UW System Workshop for New Science, Mathematics and Engineering Faculty, Oshkosh, WI.
- 64. Zimmerman, J.A. (2001). Student-Centered Pedagogy: Modifying Teaching Methods to Benefit Student Learning Styles. UWM Fall Convocation Keynote.
- Zimmerman, J.A. Laboratory Curriculum Redesign: Inquiry Based Laboratories for the UW-Colleges Introductory Chemistry Course. 222nd American Chemical Society National Meeting, Chicago, IL.
- 66. Zimmerman, J.A. (2001) Practical Aspects of Implementing Laboratory Curriculum Reform. University of Wisconsin System Curriculum Reform Institute, Oshkosh, WI.
- 67. Zimmerman, J.A. (2001). Learning Styles: Professors, Students. Wakonse Conference on College Teaching, Shelby, MI.
- 68. Zimmerman, J.A. (2001). Impact on Learning Styles Results of Laboratory Curriculum Reform. Women and Science Spring Retreat, Wisconsin Dells, WI.
- Zimmerman, J.A. (2000). Laboratory Curriculum Redesign Inquiry Based Laboratories for the UW-Colleges Introductory Chemistry Course. 16th Biennial Conference of Chemical Education, Ann Arbor, MI.
- Zimmerman, J.A., Mullen, P.A., Look, H., & Hallada, M.C. (1996). Making the Connection: The Evolution of General Chemistry Homepages. 212th National ACS Meeting, Orlando, FL.

NUCLEAR / PHYSICAL SCIENCE PUBLICATIONS

- **21.** <u>I.A. Zimmerman</u>, H.C. Griffin, F.D. Becchetti, D.A. Roberts, M.-Y. Lee, T.W. O'Donnell, J.A. Brown, R.M. Ronningen, T. Glasmacher, R.W. Ibbottson, H. Scheit, B. Pritychenko, D.W. Anthony, P.A. Lofy, M. Steiner (2007). Nuclear reactions with radioactive, isomer beams: Coulomb excitiation of ¹⁸F_{g.s.} and its J_{π} = 5⁺ isomer ¹⁸F^m using a large position-sensitive NaI array, NIM A **579**, 476-480.
- 18. 2. P.A. DeYoung, J.J. Kolata, <u>J.A. Zimmerman</u>, et al (2005). Two-neutron transfer in the ⁶He + ²⁰⁹Bi reaction near the Coulomb barrier, Physical Review C (Rapid Communications) **71**, 051601(R), pp. 1-4.
- 16. 3. S.M. Vincent, A. Aprahamian, J.J Kolata, <u>J.A. Zimmerman</u>, et al (2002). Gamma-Ray Spectroscopy with a Low Energy ⁶He Radioactive Ion Beam, NIM A **491**, 426-436.
- **15. 4.** J.J. Kolata, V. Guimaraes, M.Y. Lee, F.D. Becchetti, <u>J.A. Zimmerman</u> (2001). Breakup of ⁸B at sub-Coulomb energies, Physical Review C **63(2)**, 4616-4618.
- Angular Momentum in the ⁶He+²⁰⁹Bi Reaction Deduced from Isomer Ratio Measurements. P.A. DeYoung, J.J. Kolata, <u>J.A. Zimmerman</u>, M.Y. Lee et al, Phys. Rev. C62, 047601 (2000).

- 13. 6. Nuclear and Coulomb Interaction in ⁸B Breakup at Sub-Coulomb Energies. V. Guimaraes, J.J. Kolata, M.Y. Lee, F.D. Becchetti, <u>J.A. Zimmerman</u>, Physical Review Letters 84(9) (2000), 1862-1865.
- 11. 7. Low-Lying Collective Excitations in ¹⁸F_{g.s.} and ¹⁸F^m Studied Via Intermediate-Energy Coulomb Excitation. <u>J.A. Zimmerman</u>, University of Michigan Thesis, 1999.
- **9.** 8. Recent Results and Future Capabilities at the National Superconducting Cyclotron Laboratory, Michigan State University. R. M. Ronningen, <u>J.A. Zimmerman</u> et al, Proceedings of the International Symposium on Perspectives in Nuclear Physics, November 1998, World Scientific Publishing.
- Proton Halo in ⁸B. J.J. Kolata, V. Guimarães, D. Peterson, P. Santi, R.H. White-Stevens, S.M. Vincent, F.D. Becchetti, M.Y. Lee, T.W. O'Donnell, D.A. Roberts, and <u>J.A.</u> <u>Zimmerman</u>, Rev. Mex. De Fis. 46, Suplemento 1, (2000),113-115.
- Study of Nuclear Reactions with Intense, High-Purity, Low-Energy Radioactive Ion Beams Using a Versatile Multi-Configuration Dual Superconducting-Solenoid System. M.Y. Lee, F.D. Becchetti, T.W. O'Donnell, D.A. Roberts, <u>J.A. Zimmerman</u>, V. Guimarães, J.J. Kolata, D. Peterson, P. Santi, P.A. DeYoung, G.F. Peaslee, and J.D. Hinnefeld, Nuclear Instruments and Methods in Physics Research A 422 (1999) pp 536-540.
- Sub-barrier Fusion of ⁶He with ²⁰⁹Bi. J.J. Kolata, P.A. DeYoung, <u>J.A. Zimmerman</u>, MY Lee, FD Becchetti, Physical Review Letters 81(21) (1998), 4580-4583.
- Fusion of a Neutron Skin Nucleus: the ²⁰⁹Bi(⁶He,4n) Reaction. P.A. DeYoung, B. Hughey, P.L. Jolivette, G.F. Peaslee, H.C. Griffin, <u>J.A. Zimmerman</u>, Phys Rev C 58(6) (1998), 3442-3444.
- Reaction Cross Sections in Si of Light Proton-Halo Candidates: ¹²N and ¹⁷Ne. R.E. Warner, J. Woodroffe, F.D. Becchetti, J.A. Brown, <u>J.A. Zimmerman</u>, Nuc Phys A 635 (1998), 292-304.
- 5. 14. Study of nuclear reactions with intense, high-purity, low-energy radioactive ion beams using a versatile multi-configuration dual superconducting solenoid system. M.Y. Lee, F.D. Becchetti, T.W. O'Donnell, D.A. Roberts, <u>J.A. Zimmerman</u>, J.J. Kolata, Nucl. Instr. And Meth. In Phys. Res. A422, 536-540 (1999).
- Froduction of Exotic, Low-Energy Radioactive Beams via Two Successive Nuclear Reactions (Tertiary Beams). F.D. Becchetti, M.Y. Lee, T.W. O'Donnell, D.A. Roberts, <u>J.A.</u> <u>Zimmerman</u>, J.J. Kolata, Nucl. Instr. And Meth. In Phys. Res. A422, 505-509 (1999).

NUCLEAR / PHYSICAL CHEMISTRY PRESENTATIONS

- 1. Recent experimental investigations utilizing the ⁶He neutron-halo nucleus. J.A. Zimmerman, F.D. Becchetti, J.J. Kolata, P. deYoung, Invited Seminar, Harding University, Searcy, AR, February 2007.
- The effects of carbonation on the viscosity of liquids. J. Corbello, L. Goldberg, K. Bakker, J. A. Zimmerman, American Speech-Language-Hearing Association Convention, Miami, FL, November 2006.
- Recent experimental investigations utilizing the ⁶He neutron-halo nucleus. J.A. Zimmerman, F.D. Becchetti, J.J. Kolata, P. deYoung, 232nd National American Chemical Society Meeting, San Francisco, CA, September 2006.
- 4. Nuclear reactions with radioactive, isomer beams: Coulomb excitiation of ${}^{18}F_{g.s.}$ and its $J_{\pi} = 5^+$ isomer ${}^{18}F^m$ using a large position-sensitive NaI array. J.A. Zimmerman, F.D.

Becchetti, 2006 Symposium on Radiation Measurements and Applications, Ann Arbor, MI, May 2006.

- 5. Chemistry at the disciplinary fringe neutron-halo nuclei and integrative learning in the sciences. J.A. Zimmerman, PAM Invited Seminar, Missouri State University, March 2006.
- 6. Interdisciplinarity in Two Parts: Experimental Nuclear Chemistry and Integrative Learning in the Sciences. J.A. Zimmerman, Invited Seminar, University of Alabama, Tuscaloosa, AL, February 2006.
- 7. Evaluation of Alpha and Gamma Radiation From Fly Ash. M.E. Hall, J.A. Zimmerman, National American Chemical Society Meeting, San Diego, CA, March 2005.
- 8. Experimental Investigations of Neutron-Halo Nuclei. J.A. Zimmerman, Invited Talk, Physical Chemistry Seminar Series, University of Michigan, January 2005.
- 9. Off-Line Data Analysis of the ⁶He + ²⁰⁹Bi Breakup Reaction Utilizing an Interactive Data Language (IDL) Data Analysis Package. S. Jones, J.A. Zimmerman, National American Chemical Society Meeting, Philadelphia, PA, August 2004.
- Nuclear Chemistry Applications of IDL (Interactive Data Language). J.A. Zimmerman, N. Brennan, L. Brown, S. Jones, BRIN Research Symposium, Fayetteville, AR, September 2003.
- The TwinSol RNB Apparatus. F.D. Becchetti, M.Y. Lee, D.A. Roberts, T.W. O'Donnell, <u>J.</u> <u>A. Zimmerman</u>, J.J. Kolata, P. Santi, D. Peterson, S. Vincent and L.O. Lamm, Invited Paper CAARI 2000 Conference, Denton, TX, November 2000.
- 12. A Dual 6T Persistent-Mode SC Solenoid Ion-Optical System for Radioactive Nuclear Beam Research. F.D. Becchetti, M.Y. Lee, <u>J.A. Zimmerman</u>, J.J. Kolata, D. Peterson, P. Santi, Presented at the Conference on Applied Superconductivity, Virginia City, VA, September 2000. Submitted for publication in IEEE Transactions on Superconductivity.
- Gamma-Ray spectroscopy with the Notre Dame radioactive beam facility. S.M. Vincent, A.A. Aprahamian, J.J.Kolata, V. Guimaraes, F.D. Becchetti, M.Y. Lee, <u>J.A. Zimmerman</u>, 220th ACS National Meeting, Washington, DC, August 2000.
- 14. Twinsol: A Dual Superconducting Solenoid System for Low-Energy Radioactive Nuclear Beam Research. M.Y. Lee, F.D. Becchetti, D.A. Roberts, <u>I.A. Zimmerman</u>, J.J. Kolata, L.O. Lamm, Invited paper, 14th Int'l Conf. On the Application of Accelerators in Research and Industry, Nov. 6-9, 1996, University of North Texas, Denton, TX, Conference Proceedings published by AIP Press, New York, J.L. Duggan and I.L. Morgan ed., 397-400.
- First In-Beam Tests of a Large, Persistent Mode Superconducting Solenoid Ion-Optical System for Radioactive Beam Production. M.Y. Lee, F.D. Becchetti, T.W. O'Donnell, D.A. Roberts, <u>J.A. Zimmerman</u>, 1997 IEEE Nuclear Science Symposium and Medical Imaging Conference, Albuquerque, NM, Nov. 9-15, 1997.
- Gamma and X rays emitted in the decay of Ra-228. J.A. Zimmerman, Z. Acevedo-Gonzalez, J. Smead, H.C. Griffin, presented at APS Ohio Section Meeting, Columbus, OH, April 13th, 1996.
- 17. Preparation of Ra-228 sources. J. Smead, <u>J.A. Zimmerman</u>, H.C. Griffin, presented at APS Ohio Section Meeting, Columbus, OH, April 13th, 1996.

UNIVERSITY ACTIVITIES

Courses Taught

- Rollins College Conference, Honors: Science Fictions: The intersection of science and pop culture
- Rollins College Conference, Honors: Your Creative Brain
- Rollins College Conference: Chemistry in Context Energetic Consequences

- Honors 350 Visionaries: 21st Century Interdisciplinary Science
- Chemistry in Context
- Fundamentals of Chemistry
- General Chemistry I
- General Chemistry I Honors
- General Chemistry II
- Fundamentals of Physical Chemistry
- Beginning Physical Chemistry Laboratory
- Intermediate Physical Chemistry Laboratory
- Laboratory Safety and Chemistry Instructional Methods
- Radiation Dosimetry
- Radiation and the Environment
- Teaching Chemistry in the Secondary Schools

Thesis/Dissertation Advisor

٠	M. Elizabeth Hall	M.S. Chemistry	2006
٠	Scott Jones	M.S. Chemistry	2004

Thesis/Dissertation Committee

2006
2005
2005
2004
2003

University Service

- Chair, Academic Calendar Committee
- Member, Women in Science Committee
- Faculty Mentor, SAACS/CHS
- Senator, Faculty Senate
- Member, ADA Committee
- Member, Carnegie Association for the Scholarship of Teaching and Learning Task Force
- Chair, Departmental Teaching and Learning Committee
- Member, Teaching Fellowship Program Evaluation Committee

NATIONAL SERVICE ACTIVITIES

Judge, International IBM Teaching with SAKAI Innovation Award (2009-2012):

The intent of the Teaching With Sakai Innovation Award (TWSIA) is to recognize excellence in teaching and learning, to promote excellent pedagogy and innovation in teaching and learning, to create a community of educators who want to share teaching and learning practices, and to encourage greater faculty involvement in the Sakai community. The TWSIA committee defines an innovative course or educational experience as one that, by design, engages and challenges students, resulting in greater student interest, a deeper level of understanding and/or a lasting change in the students' perception of an issue or topic. The innovative method, practice or strategy used may not be new in the world, but its implementation may be out of the ordinary in your field of practice or new to you. It is more than simply using new technologies; rather it is an approach to teaching and learning that results in a much-enhanced, even transformative, educational experience for students.

Project presenter for Multi-Initiative Dissemination (MID) Workshops (2000-2005): The NSF-sponsored Multi-Initiative Dissemination (MID) Project introduced college and university faculty to the four NSF Systemic-Change Initiatives in Chemistry (New Traditions, Molecular Science, Peer-Led Team Learning, and ChemConnections) that were developed during the late-1990's. The overarching objective of these programs was to facilitate a cultural change in chemistry education in the college and university science classroom. The essence of this change is a paradigm shift from faculty-centered teaching to student-centered learning. Through this program, Dr. Zimmerman has mentored science faculty at the 2001 2YC3 Meeting and on the campuses of Central Michigan University, University of Missouri -Columbia, and University of Arkansas - Little Rock.

MID Project Website: http://www.cchem.berkeley.edu/~midp/index.html

Mentor for Faculty and Undergraduate Students through the Wakonse Foundation on College Teaching (2000-2006): The Wakonse Foundation brings together people who find inspiring and influencing others is what they do for a living. We create a climate where it is important and appropriate to display and discuss teaching talents . . . where colleagues learn about themselves as teachers . . . where they see and consider the tasks and issues of creative teaching in a manner characterized as enjoyable. . . where providing feedback to one another is a norm and where that feedback is outside of any institutional mandate to improve or to evaluate teaching.

University of Wisconsin - Curriculum Reform Institute Project Mentor (2000-2004): The Curriculum Reform Institute (CRI) invited teams of faculty from across the country to come together and work with mentors from the Women and Science Program on projects designed to improve science and mathematics education for all students, with an emphasis on addressing issues that often discourage women and minorities from pursuing study in the sciences or mathematics. The CRI was awarded a certificate of excellence in 2001 by the Theodore M. Hesburgh Faculty Development to Enhance Undergraduate Teaching and Learning Program. Through this program, Dr. Zimmerman has mentored science faculty from Beloit College, Clarion University, Drew University, Minnesota State Colleges Consortium, Rowan University, Southern Illinois University at Edwardsville, St. Francis College, UW River Falls, Virginia Tech, Avila College, Ball State University, Goucher College, Hartwick College, Kennesaw State University, Middle Tennessee State University, and the University of Alabama-Tuscaloosa.

Active Involvement in Scholarship of Teaching and Learning Activities:

The Carnegie Academy for the Scholarship of Teaching and Learning (CASTL) Task Force has sponsored conversations to define and describe what the scholarship of teaching and learning (SoTL) means to the institutions of higher education. Using these conversations and other accomplishments of CASTL as a springboard, Dr. Zimmerman has participated in and shaped the development of Teaching Fellowship Programs at both Montclair State University and Missouri State University that have helped to support faculty interested in conducting SoTL studies. Dr. Zimmerman was named as one of eight inaugural 2003-2004 Missouri State Teaching Fellows for his Student-Centered Chemistry project. Student learning outcomes from the Student-Centered Chemistry project have been presented in various forms at Massachusetts Institute of Technology, Arizona State University, University of Louisiana-Monroe, University of Michigan, Eastern Michigan University, University of Arkansas-Little Rock, and Southern Illinois University-Edwardsville.