

CURRICULUM VITAE

Diandra L. Leslie-Pelecky

West Virginia University

Department of Physics 135 Willey Street 303 White Hall, Morgantown WV 26506-6315

(304) 293-5032

diandra.leslie-pelecky@mail.wvu.edu

EDUCATION

- 1991 Ph.D., Michigan State University
Thesis Topic: Electron Spin Resonance in Multilayered CuMn/Cu Spin Glasses *Advisor:*
Jerry A. Cowen
- 1986 B. S. in Physics, Magna Cum Laude
B. A. in Philosophy, University of North Texas

PROFESSIONAL EXPERIENCE

- 11/10-present Professor, Department of Physics, West Virginia University
- 10/12-present Adjunct Professor, Department of Basic Pharmaceutical Sciences, WVU
- 5/08–10/10 Professor, Department of Physics, The University of Texas at Dallas
- 8/02–5/08 Associate Professor, Department of Physics & Astronomy and Nebraska Center for Materials and Nanoscience, University of Nebraska
- 6/01–7/10 Project Director, Project Fulcrum GK-12 Program, University of Nebraska
- 8/96–7/02 Assistant Professor, Department of Physics & Astronomy and Center for Materials Research & Analysis, University of Nebraska
- 9/95–12/99 Director, ScienceWorks outreach project, University of Nebraska
- 1/94–1/95 Visiting Assistant Professor. Center for Materials Research and Analysis and Department of Physics and Astronomy, University of Nebraska
- 1/95–7/96 Research Assistant Professor. Center for Materials Research and Analysis and Department of Physics and Astronomy, University of Nebraska
- 9/94 – 9/01 Director, Research Experiences for Undergraduates in Nanostructured Materials, University of Nebraska
- 9/91–12/93 Postdoctoral Researcher, Department of Physics and Astronomy, Michigan State University (Norman O. Birge, Postdoctoral Supervisor)
- 9/92–9/93 College of Natural Sciences Postdoctoral Fellow, MSU
- 9/91–12/91 Instructor, Department of Physics and Astronomy, Michigan State University
- 9/93–12/93

AWARDS AND HONORS

- 2012-2014 Sigma Xi Distinguished Lecturer
- 2005 Trophy Award (Best paper in session), MRS Session PP Fall 2005 Meeting
- 2005 Blue Ribbon Award (Outstanding paper), MRS Session PP Fall 2005 Meeting
- 1998 Best Poster Award, Fourth International Conference on Nanostructured Materials, NANO98, Stockholm, Sweden
- 1995 Chancellor's Speaker's Bureau, University of Nebraska
- 1992 College of Natural Science Fellowship, Michigan State University
- 1992 Meggers Foundation Award (for Science Theatre Activities)
- 1992 Michigan State University Department of Physics and Astronomy Outreach Award (with Science Theatre)
- 1990-91 Rockwell International Graduate Fellowship
- 1986-87 Texas Instruments Graduate Fellowship
- 1986 Outstanding Senior Physics Major, University of North Texas

SELECTED RECENT GRANTS

Agency	Title	Amts/Dates
NIH/NIEHS	Maternal Nanomaterial Exposures: Fetal Microvascular Endpoints and Programming (co-PI; Pending)	\$1,850,000 7/1/2012-6/30-2017
NIH/NIEHS	Engineered Nanomaterials and Cardiac Mitochondria (co-PI; Pending)	\$1,850,000 4/1/2013-3/31/2018
NSF/DGE	IGERT: REN@WVU – Research and Education in Nanotoxicity	\$2,996,927 7/1/12-6/30/17
NIH/NCI	Bioassay with magnetic particles in flow (w M. Espy and R.H. Krauss (PIs, Los Alamos National Lab)	\$3,487,134 12/01/04 – 1/1/07
NSF/DGE	GK-12 - Project Fulcrum: Building a Partnership	\$1,967,732 6/03–3/08
NSF/DMR	Collaborative Research: The Magnetic Properties of Disordered Rare-Earth Nanostructures (w/ Jeff Shield, Paul Shand)	\$637,929 7/1/05-6/30/08
NSF/MPS	Building a Broader Impacts Toolbox: A Planning Conference on Facilitating the Meaningful Involvement of Researchers in Education and Outreach	\$30,324 3/05-6/05
NIH/NCI	Biomagnetic Nanoparticles for Drug Delivery and Imaging (w/ V.L. Labhasetwar, M. Boska)	\$1,000,000 12/05-1/09
NSF/DMR	Acquisition of an X-Ray Diffractometer for Nanoscale Materials Research and Education (PIs Sellmyer, Belot, Larsen, Shield)	\$252,000 8/1/03 – 7/31/05
NRI	Magnetic Nanostructures for Biomedical Applications (with V. Labhasetwar, UNMC)	\$645,650 4/02 – 6/06
NSF/MPS	Building a Broader Impacts Toolbox: A Planning Conference on Facilitating the Meaningful Involvement of Researchers in Education and Outreach	\$30,324 3/05 – 12/06
ONR	Nanostructured Soft Magnets for Power Electronics	\$216,000 6/01 – 12/05
NSF/DGE	GK-12 - Project Fulcrum: Building a Partnership	\$1,442,816 6/01 – 5/04

PROFESSIONAL ACTIVITIES

2013-present	Member, Committee on Informing the Public, American Physical Society
2012	Invited Participant, American Physical Society Salon on Increasing Public Support for Scientific Research
2012-present	Secretary, Mid-Atlantic Section of the American Physical Society
2012-present	Member-At-Large, Forum on Outreach and Educating the Public, American Physical Society
2010-present	Member, Advisory Board, CarbonEARTH GK12 program at Penn State University
2008-present	Member, Advisory Board, Education Programming, National High Field Magnet Laboratory
2007-present	Member, American Institute of Physics Media and News Services Advisory Committee
2007	Chair, Conference on Communicating Science, Math and Engineering to Broader Audiences
2006-2010	Editorial Board, Journal of Biomedical Nanotechnology
2007-2008	Member, UNL Office of the Vice Chancellor for Research's Research Advisory Board
2004-2008	Editorial Board, IEEE Transactions in Magnetism
2005-2007	National Research Council, Board of Physics & Astronomy Panel on Assessment of the Impact of the NSF's Materials Research Science & Engineering Centers Program
2005	Program Committee, Intermag
2005	Program Committee, MMM Conference
2005	Organizer, NSF Broader Impacts Toolbox Workshop
2005	New Faculty Workshop Alumni Workshop organizer for March APS Meeting
2004	APS/GMAG (Topical Group on Magnetism) Nominating Committee
2004	Program Chair, Mini-symposium on Biomedical Applications of Nanomagnetic Materials
2004	Secretary, Steering Committee for 2004 Magnetism and Magnetic Materials Conference
2003	Editor, International Conference on Magnetism (Boston, MA)
2002	Secretary, Steering Committee for 2002 Magnetism and Magnetic Materials Conference
1999 – 2002	APS Representative to the AIP Advisory Committee on Career Services
2001	Secretary, Steering Committee for 2001 Magnetism and Magnetic Materials Conference
2000	Co-Chair, Conference on "The Role of Physics Departments in Preparing K-12 Teachers",
1997 - 2000	Committee on Careers and Professional Development, American Physical Society (Chair 2000)
1998	Co-Chair of the Local Organizing Committee, 61st Annual Summer Meeting of the American Association of Physics Teachers (UNL)
1998	Member, Steering Committee for "Building Undergraduate Physics Programs for the 21st Century" NSF/AAPT/APS/PKAL
1997	Local Organizing Chair, Project Kaleidoscope Workshop: "Undergraduate Physics Curriculum: What Works and What Needs to be Done" (UNL)
1997	Chair, American Physical Society Task Force on Career and Professional Development
1995-1997	Committee on Professional Concerns, American Association of Physics Teachers (Chair, 1996)
1994-1997	Co-Editor, Forum on Education Newsletter, American Physical Society
1991-1992	Founder and Director, Science Theatre: NSF-funded physics outreach program

BOOKS

- *The Physics of NASCAR*[®], Diandra Leslie-Pelecky (Dutton, 2008)
- *Biomedical Applications of Nanotechnology*, edited by V.D. Labhasetwar and D.L. Leslie-Pelecky (Wiley, New York, 2007)

BOOK CHAPTERS

- *Nanotoxicology* by D.L. Leslie-Pelecky in *Biomedical Applications of Nanotechnology*, edited by V.D. Labhasetwar and D.L. Leslie-Pelecky (Wiley, New York, 2007)
- *Nanobiomagnetism* by D.L. Leslie-Pelecky, V.D. Labhasetwar and R.H. Kraus, Jr. in *Advanced Magnetic Nanostructures*, edited by D.J. Sellmyer and R.S. Skomski, Kluwer, New York (2007)
<http://digitalcommons.unl.edu/mrsecfacpubs/31>

REFEREED PUBLICATIONS

- 63) *Correlating Structure with Ferromagnetism in Melt-Spun Gd(100-x)Fe(x)*, Shand, P. M., Schmitter, D. C., Rojas, G., Shield, J. E., Goertzen, J., Meyer, A. L., Pekarek, T. M., Kramer, M. J. & Leslie-Pelecky, D. L. J. *Alloys Compounds* **509**, 3000-3005 (2011).
- 62) *Critical Properties of the Paramagnetic-to-Ferromagnetic Transition in Nanocrystalline Gd Diluted with Fe* Shand, P. M., Bohnet, J. G., Jensen, N. H., Goertzen, J., Litwinowicz, V. J., Shield, J. E., Schmitter, D. C., Rojas, G. & Leslie-Pelecky, D. L., *J Magn Magn Mater* **322**, 3303-3309 (2010).
- 61) *Applying Three Strategies for Integrating Quantitative and Qualitative Databases in a Mixed Methods Study of a Nontraditional Graduate Education Program*, Vicki L. Plano Clark, Amanda L. Garrett and Diandra L. Leslie-Pelecky, *Field Methods*, **22** 154-74 (2010)
- 61) *Materials at 200 mph: Making NASCAR Faster and Safer*, Leslie-Pelecky, D. *MRS Bull* **34**, 602-606 (2009).
- 60) *Ecosystem Jenga!*, Tierney Brosius, Natalie Umphlett and Diandra L. Leslie-Pelecky, *ScienceScope*, 33(1) 57-60. (2009)
- 59) *Magnetic Behavior of Melt-Spun Gadolinium*, P.M. Shand, J.G. Bohnet, J. Goertzen, D. Schmitter, G. Shelburne, and D.L. Leslie-Pelecky, *Phys. Rev. B* **77**, 184415-181 (2008).
<http://digitalcommons.unl.edu/physicslesliepelecky/21/>
- 58) *Magnetic Nanoparticles with Dual Functional Properties: Drug Delivery and Magnetic Resonance Imaging*, Tapan K. Jain, John Richey, Michelle Strand, Diandra L. Leslie-Pelecky, Chris Flask and Vinod Labhasetwar, *Biomaterials*, **29**, 4012-4021 (2008).
- 57) *Mechanism for Sustainable Magnetic Nanoparticles Under Ambient Conditions*, N. H. Hai, N. D. Phu, N. H. Luong, N. Chau, H. D. Chinh, L. H. Hoang, and D. L. Leslie-Pelecky, *Journal of the Korean Physical Society* **52**, 1327-1331 (2008).
- 56) *Biodistribution, Clearance, and Biocompatibility of Iron-Oxide Magnetic Nanoparticles in Rats*, Tapan K. Jain, Maram K. Reddy, M.A. Morales, D. L. Leslie-Pelecky and Vinod Labhasetwar, *Molecular Pharmaceutics*, 5(2), 316-324 (2008).
- 55) *Examining the Cognitive Processes Used by Adolescent Girls and Women Scientists in Identifying Science Role Models: A Feminist Approach*, Gayle A. Buck, Vicki L. Plano Clark, Diandra L. Leslie-Pelecky, Yun Lu and Patricia Cerda-Lizarraga *Science Education*, 92(4), 688-707 (2008).
<http://digitalcommons.unl.edu/physicslesliepelecky/22>
- 54) *Analysis of the Ferromagnetic Transition in Melt-Spun Gadolinium Nanocrystals*, J.G. Bohnet, P.M. Shand, J. Goertzen, J.E. Shield, D. Schmitter, G. Shelburne, and D.L. Leslie-Pelecky, *American Journal of Undergraduate Research* **6**(2) 19-26 (2007).
- 53) *Learning How to Make Inquiry into Electricity and Magnetism Discernible to Middle Level Teachers*, Gayle Buck, Margaret Macintyre Latta, and Diandra Leslie-Pelecky, *Journal of Science Teacher Education* **18** (3), 377 (2007). [doi 10.1007/s10972-007-9053-8] digitalcommons.unl.edu/teachlearnfacpub/25/

- 52) *Surface Anisotropy and Magnetic Freezing of MnO Nanoparticles*, M.A. Morales, R. Skomski, S. Fritz, G. Shelburne, J.E. Shield, Ming Yin, Stephen O'Brien, and D.L. Leslie-Pelecky, *Phys. Rev. B* **75**, 134423 (2007). [doi: 10.1103/PhysRevB.75.134423] digitalcommons.unl.edu/physicslesliepelecky/19/
- 51) *Terms of Inquiry*, Margaret Macintyre Latta, Gayle Buck, Diandra Leslie-Pelecky, and Lora Carpenter, *Teachers and Teaching: Theory and Practice* **13**(1), 21-41 (2007). digitalcommons.unl.edu/teachlearnfacpub/35/
- 50) *SQUID-Based Bioassay with Magnetic Particles in Flow*, M.A. Espy, C. Carr, J.H. Sandin, S.G. Daniels, A.N. Matlachov, S.W. Graves, M.D. Ward, R. H. Kraus, Jr., S. Fritz and Diandra L. Leslie-Pelecky, *Journal of Physics: Conference Series from the European Conference on Applied Superconductivity*. **43**, 1254-1257 (2006)
- 49) *Self-Definition of Women Experiencing a Non-Traditional Graduate Fellowship Program*, Gayle A. Buck, Diandra L. Leslie-Pelecky, Yun Lu, Vicki L. Plano Clark, John W. Creswell, *Journal of Research in Science Teaching*, **43**, 852-873 (2006) digitalcommons.unl.edu/physicslesliepelecky/1/
- 48) *Helping Students Learn to Question*, C.N. Ross, A. Zabawa and D.L. Leslie-Pelecky, *Am. J. Primatology* **66**, 166 (2005)
- 47) *Research Experiences for Teachers in Materials Science: A Case Study*, Michelle A. Strand, Steve Wignall, and Diandra L. Leslie-Pelecky, *Journal of Materials Education* **27** (3-6) 222-226 (2005)
- 46) *Broadening Middle-School Students' Images of Science and Scientists*, Diandra L. Leslie-Pelecky, Gayle A. Buck, and Angela Zabawa, *Journal of Materials Education* **27** (3-6) 173-178 (2005)
- 45) *The Stability and Oxidation Resistance of Iron- and Cobalt-Based Magnetic Nanoparticle Fluids Fabricated by Inert-Gas Condensation*, Nguyen H. Hai, Raymond Lemoine, Shaina Remboldt, Michelle A. Strand, Steve Wignall, Jeffrey E. Shield, and Diandra Leslie-Pelecky, in *Nanoscale Materials Science in Biology and Medicine*, edited by C. T. Laurencin and E. A. Botchwey (Mater. Res. Soc. Symp. Proc. 845 Warrendale, PA, 2005) p. AA5.44. digitalcommons.unl.edu/physicslesliepelecky/18/
- 44) *Magnetic Studies of Iron-Oxide Nanoparticles Coated with Oleic Acid and Pluronic® Block Copolymer*, M.A. Morales, Tapan Kumar Jain, V. Labhasetwar, D. L. Leslie-Pelecky, *J. Appl. Phys.* **97**, 10Q905 (2005). **Selected for the Virtual Journal of Biological Physics Research** digitalcommons.unl.edu/physicslesliepelecky/4/
- 43) *Research Experiences for Teachers in Materials Science: A Case Study*, M. A. Strand, S. Wignall, and D. L. Leslie-Pelecky, in *Communicating Materials Science-Education for the 21st Century*, edited by S. Baker, F. Goodchild, W. Crone and S. Rosevear (Mater. Res. Soc. Symp. Proc. 861E, Warrendale, PA, 2005) p. PP3.4. (electronic publication) – **a MRS Trophy Award paper**.
- 42) *Broadening Middle-School Students' Images of Science and Scientists*, D. L. Leslie-Pelecky, G. A. Buck, and A. Zabawa, in *Communicating Materials Science-Education for the 21st Century*, edited by S. Baker, F. Goodchild, W. Crone and S. Rosevear (Mater. Res. Soc. Symp. Proc. 861E, Warrendale, PA, 2005) p. PP5.5. (electronic publication) – **a MRS Blue-Ribbon paper**. <http://digitalcommons.unl.edu/physicslesliepelecky/3/>
- 41) *Iron Oxide Nanoparticles for Sustained Delivery of Anticancer Agents*, Tapan K. Jain, M.A. Morales, Sanjeeb K. Sahoo, D. L. Leslie-Pelecky, and Vinod Labhasetwar, *Molecular Pharmaceutics* **2**, 194-205 (2005); doi: 10.1021/mp0500014 – **featured on the National Cancer Institute's Nanotech News website**. digitalcommons.unl.edu/physicslesliepelecky/2/
- 40) *Iron- and Cobalt-Based Magnetic Fluids Produced By Inert-Gas Condensation*, Nguyen H. Hai, Raymond Lemoine, Shaina Remboldt, Michelle Strand, Jeffrey E. Shield, David Schmitter, Robert H. Kraus, Jr., Michelle Espy, Diandra L. Leslie-Pelecky, *J. Magn. Magn. Mater.* **293**, 75-79 (2005); doi:10.1016/j.jmmm.2005.01.046
- 39) *Spin Glass or Random Anisotropy?: The Origin of Magnetically Glassy Behavior in Nanostructured GdAl₂*, P. M. Shand, C. C. Stark, D. Williams, M. A. Morales, T. M. Pekarek, and D. L. Leslie-Pelecky, *J. Appl. Phys.* **97**, 10J505 (2005); doi:10.1063/1.1853003
- 38) *Proton Beam Irradiation Effects on Magnetic Nanocomposites*, M. Chipara, M.J. Zaleski, D. Hui, D.L. Pelecky, S. Balascuta, in *Radiation Effects and Ion-Beam Processing of Materials*, edited by Lu-Min Wang, Rainer Fromknecht, Lance L. Snead, Daniel F. Downey, Heishichiro Takahashi (Mater. Res. Soc. Symp. Proc. 792, Warrendale, PA, 2004) p R3.25.
- 37) *Disorder-Induced Depression of the Curie Temperature in Mechanically Milled GdAl₂*, M.A. Morales, D.S. Williams, P.M. Shand, C. Stark, T.M. Pekarek, L.P. Yue, V. Petkov, and D.L. Leslie-Pelecky, *Phys. Rev. B* **70**, 184407 (2004) <http://digitalcommons.unl.edu/mrsefacpubs/11>

- 36) *On styrene-butadiene-styrene-barium ferrite nanocomposites*, M. Chipara, D. Hui, J. Sankar, D. Leslie-Pelecky, A. Bender, L. Yue, R. Skomski, D.J. Sellmyer, *Composites: Part B*, **35**(3), 235-243 (2004)
- 35) *Solid-state solubility influences encapsulation and release of hydrophobic drugs from PLGA/PLA nanoparticles*, Jayanth Panyam, Deborah Williams, Alekha Dash, Diandra Leslie-Pelecky, Vinod Labhassetwar, *J. Pharm. Sci.* **93**(7), 1804-1814 (2004)
- 34) *Magnetic transitions in disordered GdAl₂*, D.S. Williams, P.M. Shand, T.M. Pekarek, R. Skomski, V. Petkov and D.L. Leslie-Pelecky, *Phys. Rev. B*, **68**, 214404 (2003) <http://digitalcommons.unl.edu/mrsecfacpubs/14>
- 33) *Curie-Weiss Analysis of Ferromagnetic and Glassy Transitions in Nanostructured GdAl₂*, D. Williams, P. M. Shand, C. Stark, T. Pekarek, R. Brown, Lanping Yue, D. L. Leslie-Pelecky, *J. Appl. Phys.* **93**, 6525-6527 (2003)
- 32) *Coercivity of Disordered Nanostructures*, R. Skomski, D. Leslie-Pelecky, R.D. Kirby, A. Kashyap, D.J. Sellmyer; *Scripta Mater.* **48**, 857-862 (2003)
- 31) *Bringing Female Scientists into the Elementary Classroom: Confronting the Strength of Elementary Students' Stereotypical Images of Scientists*, G.A. Buck, D.L. Leslie-Pelecky and S. Kirby; *Journal of Elementary Science Education*, **14**(2), 1-10 (2002). <http://digitalcommons.unl.edu/teachlearnfacpub/15>
- 30) *High-Temperature Magnetic Properties of SmCo_{6.7-x}Cu_{0.6}Ti_x magnets*, I.A. Al-Omari, J. Shobaki, R. Skomski, D.L. Leslie-Pelecky, J. Zhou, D.J. Sellmyer; *Physica B*, **321** (1-4), 107-111 (2002)
- 29) *The Role of Disorder in the Magnetic Properties of Mechanically Milled Nanostructured Alloys*, Diandra L. Leslie-Pelecky, Elaine M. Kirkpatrick, Tom Pekarek, Richard L. Schalek, Paul Shand, Deborah S. Williams, and Lanping Yue; in *Applications of Ferromagnetic and Optical Materials, Storage and Magnetolectronics*, edited by H. J. Borg, K. Bussmann, W. F. Egelhoff, L. Hesselink, S. A. Majetich, E. S. Murdock, B. J. H. Stadler, M. Vazquez, M. Wuttig and J. Q. Xiao, (Mater. Res. Soc. Symp. Proc. 674, Warrendale, PA, 2002) p U5.1
- 28) *Coexistence of Ferromagnetic and Glassy States in Mechanically Milled GdAl₂*, C. Stark, P.M. Shand, T.M. Pekarek, D. Williams, R. Brown, L. Yue, D.L. Leslie-Pelecky, *American Journal of Undergraduate Research*, **1**, 27 (2002)
- 27) *High-Temperature Properties of Mechanically Alloyed SmCo₅ and YCo₅*, I.A. Al-Omari, R. Skomski, R. A. Thomas, D.L. Leslie-Pelecky and D.J. Sellmyer, *IEEE Trans. Magn.* **37**, 2534-2536 (2001)
- 26) *Cooperative Freezing in Spin Glasses and Magnetic Nanostructures*, Ralph Skomski and D. Leslie-Pelecky, *J. Appl. Phys.* **89**, 7036-7038 (2001)
- 25) *Grain Size Effects on the Magnetic Properties of Chemically Synthesized Ni:Ni₃C Nanocomposites*, M. J. Bonder, E.M. Kirkpatrick, T. Martin, S.-J. Kim, R.D. Rieke and Diandra L. Leslie-Pelecky; *J. Magn. Mater.* **222**, 70-78 (2001)
- 24) *Magnetic Properties of Disordered Ni₃C*, Lanping Yue, R. Sabirianov, E.M. Kirkpatrick, Diandra L. Leslie-Pelecky; *Phys. Rev. B* **62**, 8969-8975 (2000).
- 23) *Interactive Worksheets in Large Introductory Physics Courses*, Diandra L. Leslie-Pelecky; *Phys. Teach.* **38**, 165-167 (2000).
- 22) *Structural and Magnetic Properties of Mechanically Milled SmCo₅:C*, E.M. Kirkpatrick and Diandra L. Leslie-Pelecky; *J. Appl. Phys.* **87**, 6734-6736 (2000).
- 21) *ScienceWorks: A University-Based Science Outreach Group*, Rochelle Payne Ondracek and Diandra Leslie-Pelecky; *Proceedings of the American Society for Engineering Education National Conference*, Charlotte NC (1999). <http://www.asee.org/acPapers/99conf452.PDF>; <http://digitalcommons.unl.edu/physicslesliepelecky/15>
- 20) *Magnetic and Structural Properties of Chemically Synthesized Mg-Co Alloys*, E.M. Kirkpatrick, Diandra L. Leslie-Pelecky, S.-H. Kim and Reuben D. Rieke; *J. Appl. Phys.* **85**, 5375-5377 (1999).
- 19) *Room-Temperature Ageing Effects on the Magnetic Properties of Mechanically Milled SmCo*, Diandra L. Leslie-Pelecky, E.M. Kirkpatrick and R.L. Schalek; *Nanostruct. Mater.* **12**, 887-890 (1999).
- 18) *Effect of Disorder on the Magnetic Properties of SmCo₅*, Diandra L. Leslie-Pelecky and Richard L. Schalek; *Phys. Rev. B* **59**, 457-462 (1999).

- 17) *Using High-Temperature Chemical Synthesis to Produce Metastable Nanostructured Cobalt*, Diandra L. Leslie-Pelecky, M. Bonder, T. Martin, E.M. Kirkpatrick, Yi Liu, X.Q. Zhang, S.-H. Kim and Reuben D. Rieke; Chem. Mater. **10**, 3732-3736 (1998).
- 16) *Chemical Synthesis of Nanostructured Cobalt at Elevated Temperatures*, Diandra L. Leslie-Pelecky, M. Bonder, T. Martin, E.M. Kirkpatrick, X.Q. Zhang, S.-H. Kim and Reuben D. Rieke; IEEE Trans. Magn. **34**, 1018-1020 (1998).
- 15) *Structural Properties of Chemically Synthesized Nanostructured Nickel and Ni₃C:Ni Nanocomposites*, Diandra L. Leslie-Pelecky, X.Q. Zhang, S.H. Kim, M. Bonder and Reuben D. Rieke; Chem. Mater. **13**(1) 164-171 (1998).
- 14) *Magnetic Properties of Nanostructured Materials*, Diandra L. Leslie-Pelecky and Reuben D. Rieke (review paper); Chemistry of Materials **8**(8), 1770-1783 (1996).
- 13) *Self-Stabilized Magnetic Colloids: Ultrafine Co Particles in Polymers*, Diandra L. Leslie-Pelecky, X.Q. Zhang and R.D. Rieke; J. Appl. Phys. **79**, 5312-5314 (1996).
- 12) *Tailoring of the Magnetic Properties of SmCo₅:NbCr₂ Nanocomposites Using Mechanical Alloying*, Richard L. Schalek, Diandra L. Leslie-Pelecky, John Knight, D.J. Sellmyer and Steven C. Axtell; IEEE Trans. Mag. **31**, 3772-3774 (1995).
- 11) *Dielectric Measurement of the Model Glass Transition in Orientationally Disordered Cyclo-Octanol*, Diandra L. Leslie-Pelecky and Norman O. Birge, Phys. Rev. B **50**, 13250-13258, (1994).
- 10) *Comparison of the Electron Spin Resonance Linewidth in Multilayered CuMn Spin Glasses with Insulating vs. Conducting Interlayers*, Diandra L. Leslie-Pelecky, F. VanWijland, C.N. Hoff, J.A. Cowen, A. Gavrin and C.-L. Chien; J. Appl. Phys. **75**, 6489-6491, (1994).
- 9) *Universal Scaling of the Relaxation Near a Model Glass Transition*, Diandra L. Leslie-Pelecky and Norman O. Birge; Phys. Rev. Lett. **72**, 1232-1235 (1994).
- 8) *The Electron Spin Resonance Linewidth of Multilayered CuMn/Cu Spin Glasses: Residual Width and Thermal Broadening Coefficient*, D.L. Leslie-Pelecky and J.A. Cowen, Phys. Rev. B **48**, 7158-7166 (1993).
- 7) *Critical Behavior of the Electron Spin Resonance Linewidth in Multilayered CuMn Spin Glasses*, D.L. Leslie-Pelecky and J.A. Cowen; Phys. Rev. B **46**, 9254-9257 (1992).
- 6) *The Transition 'Back' from Two to Three Dimensions*, R. Stubi, D. L. Leslie-Pelecky, and J.A. Cowen; J. Appl. Phys. **67**, 5970-5972 (1990).
- 5) *Dimensionality Crossover in CuMn Spin-Glass Films*, P. Granberg, P. Nordblad, P. Svedlindh, L. Lundgren, R. Stubi, G.G. Kenning, D.L. Leslie-Pelecky, J. Bass and J.A. Cowen; J. Appl. Phys. **67**, 5252-5254 (1990). -
- 4) *2D and 3D Spin Glass Dynamics in Thin Cu(Mn) Films*, J. Mattson, P. Granberg, P. Nordblad, L. Lundgren, R. Stubi, D. Leslie-Pelecky, J. Bass and J. Cowen; Physica B **165 & 166**, 461-462 (1990).
- 3) *'Universality' of Finite Size Effects in CuMn and AgMn Spin-Glasses*, R. Stubi, J.A. Cowen, D. Leslie-Pelecky and J. Bass; Physica B **165 & 166**, 459-460 (1990).
- 2) *Finite-Size Effects in Cu-Mn Spin Glasses*, G.G. Kenning, Jack Bass, W.P. Pratt, Jr., D. Leslie-Pelecky, Lilian Hoines, W. Leach, M.L. Wilson, R. Stubi, and J.A. Cowen; Phys. Rev. B **42**, 2393-2415 (1990).
- 1) *New Method of Characterizing Majority and Minority Carriers in Semiconductors*, D.L. Leslie-Pelecky, D.G. Seiler, M.R. Loloee and C.L. Littler; Appl. Phys. Lett. **51**, 1916-1918 (1987).

OTHER(NON-REFEREED) PUBLICATIONS

- 8) *Who Does Outreach and to Whom are they Reaching Out?*, Diandra Leslie-Pelecky in Haase, D.G. and Schulze, S.K. (Ed.) Proceedings of the Conference on K-12 Outreach from University Science Departments 2008, The Science House, North Carolina State University (2008) (<http://www.science-house.org/conf/2008ConfProceedings.pdf>)
- 7) *Integrating Research and Education: Moving from Individual Faculty Initiatives to Institutionalization*, Diandra Leslie-Pelecky, in Rice, M.L. (Ed.). Recruiting and Training Future Scientists: How Policy Shapes the Mission of Graduate Education. (MASC Report No. 107). Lawrence, Kansas, University of Kansas Merrill Advanced Studies Center. (2003)
- 6) *How Scientists Can Help With K-12 Education*, Diandra Leslie-Pelecky, American Physical Society APS News, **11**, 3 (2002) , (<http://www.aps.org/apsnews/0302/030210.html>)
- 5) *The Role of Physics Departments in Teacher Preparation*, edited by Gayle A. Buck, Jack G. Hehn, D.L. Leslie-Pelecky, American Institute of Physics, (2001)
- 4) *Why Teacher Preparation?*, Diandra L. Leslie-Pelecky and Gayle A. Buck, *American Physical Society Forum on Education Newsletter*, Fall 2000 (<http://www.aps.org/units/fed/fall2000/index.html>)
- 3) *NSF Reviews Undergraduate Science Education*, Diandra L. Leslie-Pelecky and Robert C. Hilborn, *Physics News in 1996*, edited by Phillip F. Schewe, American Institute of Physics (1997).
- 2) *Advice for Applying to Summer Research Programs*, D.L. Leslie-Pelecky, *Society of Physics Students Newsletter* **28(3)**, 10 (1996).
- 1) *Magnetic and Structural Properties of Ultrafine Ni Particles Produced by the Reduction of Metal Salts*, Diandra L. Leslie-Pelecky, X.Q. Zhang, G. Krichau and Reuben D. Rieke, *Proceedings of the American Chemical Society Division of Polymeric Materials: Science and Engineering* **73**, 66 (1995).

SELECTED RECENT INVITED TALKS AND WORKSHOPS

- “*The Science of Speed: Why Going Fast is Harder than you Think*” Sigma Xi Science Café, Cleveland, OH (November 2012)
- “*The Science of Speed*” Keynote speaker, joint meeting of the Chicago and Illinois American Association of Physics Teachers, Joliet, IL (October 2012)
- “*The Science of Speed*” Physics Department Colloquium, Indiana University, Bloomington, IN (September 2012)
- “*The Science of Speed*” Keynote speaker, Arizona Science Teachers Association annual meeting, Phoenix, AZ (October 2011)
- *Testimony for the Senate Committee on Space, Science and Transportation regarding the re-authorization of the National Nanotechnology Initiative*, Washington DC (July 2011)
- “*The Science of Speed*”, University of Illinois, Urbana-Champaign IL (May 2011)
- “*SPEED: The Science of NASCAR*”, Walker Cisler Lecture, Lawrence Technological University, Southfield, MI (March 2011)
- “*The Role of Education and Outreach for the Research Scientist*”, Center for Science and Engineering Partnerships, UC-Santa Barbara, Santa Barbara CA, (February 2011)
- “*Materials at 200 mph: Making NASCAR Faster and Safer*”, Boston University, Boston MA (February 2011)
- “*WV Nano – Opportunities for Collaboration*”, WVBio Conference, Charleston WV (January 2011)
- *Racing: Relevant to More than Just Cars*, International Motorsports Symposium, Oxford, England (November 2009)
- *NASCAR: The Science of Speed*, Lloyd B. Thomas Lecture, The University of Missouri, Columbia MO (November 2009)
- *NASCAR: The Science of Speed*, Acceleration Festival, Texas State Technical College, Harlingen TX (October 2009)
- *NASCAR: The Science of Speed*, SciFest 09, St. Louis Science Center, St. Louis MO (October 2009)
- *NASCAR: The Science of Speed*, Georgetown University, Washington DC (September 2009)
- *The Science of NASCAR: Materials at 200 mph*, Tulane University, New Orleans, LA (September 2009)

- *The Science of Speed*, Adventure Science Center, Nashville, TN (July 2009)
- *The Science of Speed*, Missouri Scholars Academy, Columbia MO (June 2009)
- *NASCAR: The Science of Speed*, American Physical Society Division of Atomic, Molecular and Optical Physics, Charlottesville, VA (May 2009)
- *Stock Car Science*, Teachers' Day, American Physical Society April Meeting, Denver CO (May 2009)
- *NASCAR: The Science of Speed*, Wyoming/Colorado AAPT meeting, Golden CO (April 2009)
- *Stock Car Science*, Teachers' Day, American Physical Society March Meeting, Pittsburgh PA (March 2009)
- *The Science of NASCAR: Materials at 200 mph*, The University of Texas at Arlington, Arlington TX (March 2009)
- *The Science of NASCAR: Materials at 200 mph*, Materials Research Society Fall Meeting, Boston MA (December 2008)
- *The Science of NASCAR: Materials at 200 mph*, University of Maryland, College Park, MD (November 2008)
- *NASCAR: The Science of Speed*, Spartanburg Science Museum, Spartanburg, SC (November 2008)
- *The Science of NASCAR: Materials at 200 mph*, Arizona State University, Tempe AZ (November 2008)
- *The Science of NASCAR: Materials at 200 mph*, Ohio State University, Columbus OH (October 2008)
- *Biomedical Applications of Magnetic Nanomaterials*, Ohio State University, Columbus OH (October 2008)
- *NASCAR: The Science of Speed*, 1st Inaugural Begeman Lecture Series, University of Northern Iowa, Cedar Falls IA (October 2008)
- *The Science of NASCAR: Materials at 200 mph*, Texas Section American Physical Society Meeting, El Paso (October 2008)
- *Workshop: NASCAR in the Classroom*, Charlotte NC (October 2008)
- *The Science of NASCAR*, 1st Annual International Science Festival, St. Louis Science Center, St. Louis MO (October 2008)
- *The Science of SPEED*, Texas Tech University (September 2008)
- *NASCAR: The Science of SPEED*, Texas A&M University (September 2008)
- *The Science of Speed*, Idea Festival, Louisville KY (September 2008)
- *NASCAR: The Science of SPEED*, The University of Missouri – Columbia (May 2008)
- *Materials at 200 mph*, UCLA (May 2008)
- *The Science of Speed*, Delaware State University, Dover DE (September 2008) (talk and workshop for teachers)
- *An Introduction to Biomedical Applications of Magnetic Nanomaterials*, Delaware State University, Dover, DE (September 2008)
- *The Education/Outreach Figure of Merit: Making a Difference without Making Yourself Crazy*, presented at the 7th Annual K-12 Outreach Meeting sponsored by BWF, Research Triangle Park, NC (April 2008)
- *The Science of NASCAR*, Scienclevision, NSF Workshop on Science in the Movies, USC (March 2008)
- *Materials at 200 mph: Materials Making NASCAR Faster and Safer*, presented at the March Meeting of the American Physical Society (March 2008)
- *Biomedical Applications of Magnetic Nanoparticles*, Tuskegee University, Tuskegee AL (March 2008)
- *Are We Making Progress? Leveraging Project Fulcrum*, American Association for the Advancement of Science, Boston MA (February 2008)