# Curriculum Vitae- Brian Scott Mitchell

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## POSITIONS HELD

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| Professor Emeritus | 2023 - present | Tulane University, Chemical and Biomolecular Engineering |
| Scholar-in-Residence | 2022 - 2023 | Council of Graduate Schools |
| Professor | 2002 - 2023 | Tulane University, Chemical and Biomolecular Engineering |
| Interim Associate Dean for Graduate Studies, Research, and Facilities | 2018 - 2019 | Tulane University, School of Science and Engineering |
| Dean in Residence | 2015 - 2016 | National Science Foundation/Council of Graduate Schools |
| Associate Provost for Graduate Studies and Research | 2006 - 2014 | Tulane University, Office of Academic Affairs |
| Associate Director | 2001- 2006 | Tulane Institute for Macromolecular Engineering and Science |
| Associate Professor (with tenure) | 1999 - 2002 | Tulane University, Chemical Engineering |
| Associate Professor (untenured) | 1997 - 1999 | Tulane University, Chemical Engineering |
| Assistant Professor | 1994 - 1997 | Tulane University, Chemical Engineering |
| Lecturer/Instructor | 1993 - 1994 | University of Wisconsin-Madison, Chemical Engineering |

## EDUCATION

- Ph.D., Chemical Engineering (1991), University of Wisconsin-Madison
- M.S., Chemical Engineering (1987), University of Wisconsin-Madison
- B.S., Chemical Engineering with High Distinction (1986), University of Illinois Urbana-Champaign

## HONORS & ACTIVITIES

- Outstanding Contributions to Graduate Education in the Southern Region (Conference of Southern Graduate Schools, 2020)
- Fellow, American Institute of Chemical Engineers (inducted 2012)
- Alexander von Humboldt Research Fellow (2003; 2012)
- AIChE Student Chapter Honor Roll Advisor (2002)
- Finalist, Sir Harold Thompson Memorial Award for best paper, *Spectrochimica Acta A* (2001)
- German Academic Exchange Program (DAAD) Fellow (1998)
- Member, LA Board of Regents "Speaking of Science" Speaker's Bureau (1997-present)
- Lilly Teaching Endowment Fellow (1995)
- NSF-NATO Postdoctoral Fellow (1992-93)
- Amoco Foundation Fellow, University of Wisconsin (1989-90)
- Member: AIChE, ASEE, AAAS, ACS, Tau Beta Pi

## ADMINISTRATIVE EXPERIENCE (Diversity efforts in bold)

*Interim Associate Dean for Graduate Studies, Research and Facilities (January 2018-August 2019)*

- Oversaw admissions, training and tracking for graduate education in the School of Science and Engineering
- Managed $20M+ research portfolio for School of Science and Engineering
- Oversaw facilities, space allocation, and capital projects for 200,000+ sqft in the School of Science and Engineering

*CGS/NSF Dean-in-Residence (February 2015 - August 2016)*

- Advised NSF and other federal agencies on national and international graduate education programs and policies
- Worked with regional graduate school organizations to promote NSF graduate education programs and policies
- NSF Liaison to Council of Graduate Schools
- Hosted workshop and authored report on evaluating international research experiences for graduate students
- Fostered research on graduate education, training, and student learning

*Associate Provost for Graduate Studies and Research, Tulane University (2006-2014)*

- Oversaw establishment of new Interdisciplinary PhD Programs in Aging Studies; Linguistics; City, Culture and Community; Bioinnovation; French Studies; and Political Development
- Established protocol for and conducted periodic reviews of all PhD programs
- Established and directed the Office of Graduate and Postdoctoral Studies (OGPS) and its personnel
- Elected to Executive Committees of AAU Graduate Deans (AGS, 2010) and Council of Southern Graduate Schools (CSGS, 2010)
- **Secured and Managed over $2.0M in Southern Region Education Board Minority Doctoral Fellowships**
- Oversaw re-distribution of over $5M in Teaching Assistant funds to schools and programs
- **Academic Advisor; Mandela Washington Fellowship for Young African Leaders (YALI) Institute (2014)**
- Chair, Graduate Council
- Chaired key academic committees for successful SACS-COC Reaffirmation University reaffirmation of accreditation
- Oversaw international academic research activities
- Initiated multi-year reclassification process for postdoctoral scholars

*Associate Director, Tulane Institute for Macromolecular Science and Engineering (2001-2006)*

- Oversaw $5M expenditures

## RESEARCH EXPERIENCE

- Visiting Scientist - 5/12 to 8/12, Max Planck Institute for Colloids and Interfaces, Potsdam, Germany
- Visiting Scientist - 3/03 to 8/03, German Aerospace Agency (DLR), Köln, Germany
- Visiting Scholar - 6/98, Institut f. Keramische Werkstoffe, Universität Freiberg, Germany
- Visiting Scientist - 7/98, Bundesanstalt f. Materialforschung u. -prüfung, Berlin, Germany
- Postdoctoral Fellow - 2/92 to 2/93, University of Karlsruhe, Germany
- Research Assistant - 1/86 to 12/91, University of Wisconsin-Madison

## INDUSTRIAL EXPERIENCE

- Scientific Advisor and Consultant, 2013-2022, Advano, LLC
- Consultant, 2000, LLB, Inc., Metairie, LA
- Consultant, 1999, Exxon Research and Development Laboratories, Baton Rouge, LA
- Consultant, 1997-98, The Laitram Corporation, Harahan, LA
- Research Associate - 6/86 to 9/86, USG Corporate Research Center, Libertyville, IL

## PROFESSIONAL AND INSTITUTIONAL SERVICE (Diversity efforts in bold)

- Academic Advisory Board, "A Personalized Learning Model for Graduate STEM Education," NSF Innovations in Graduate Education Award #2325599, (S. Fullerton, PI) University of Pittsburgh (2023-present, appointed)
- Graduate Education Advisory Board, American Chemical Society (2018-2020, appointed)
- Search Committee, University Architect, Tulane University (2019)
- Organizer, Summit on Graduate and Professional Education at Tulane University (2018)
- Chair, Search Committee, Dean of the School of Science and Engineering, Tulane University (2017)
- Search Committee, Senior Vice President for Academic Affairs and Provost, Tulane University (Member, 2016)
- Board of Trustees, DAAD North America Alumni Association (2014-2020, elected)
- Research Ambassador, DAAD (2014-present, elected)
- Executive Board, AAU Association of Graduate Schools (2010 - 2013, elected)
- Executive Board, Conference of Southern Graduate Schools (2010 - 2013, elected)
- Nominating Committee, Oak Ridge Associated Universities (2010 - 2013, elected)
- AIChE Materials Eng. & Science Div., Chair (2006-07, elected)
- AIChE New Orleans Section, Chair (2002, elected), Vice-Chair (2001, elected), Secretary (2000, elected), Treasurer (1999)
- Chair, AIChE 2004 Spring National Meeting General Arrangements Committee (GAC)
- Proposal/Panel Reviewer, NSF; CRDF; ACS/PRF; ARO; National Science Center, Poland; Czech Science Foundation
- Manuscript Reviewer, numerous professional peer-reviewed journals
- Session chair, numerous professional conference
- **Mentor, Louise Stokes Louisiana Alliance for Minority Participation (LSAMP), 1998, 1999, 2002, 2004, 2007, 2009, 2010**
- University Senator (2001-06; 2016 - 2017); member: Budget, Development, Benefits, Conflict of Interest, Review of Faculty Status Decision Impasses; and President's Faculty Action committees.

## GRADUATE EDUCATION PUBLICATIONS (Peer-reviewed in bold)

10. Grad-post podcasts https://open.spotify.com/show/2MSeNBLwPecCcnvMmieYUI and website grad-post.com
9. Augustine, R., Linton, M. Kent, J. & Mitchell, B. "Master's education: A Guide to creating and sustaining student-centered programs," Council of Graduate Schools, 2025.
8. Mitchell, B.S. "The Complementary Roles of Journal Articles and Books in Graduate Education Research," University of Toronto Press Blog, January 13, 2022.
7. **Mitchell, B.S. and J. Hoare "Principal Investigator Perspectives on the Effects of COVID-19 on their NSF-Funded International Research Projects with Students in 2020," *J. Int. Eng. Ed.,* 3[1], Article 2, 2021.**

6. **Mitchell, B.S., *A Research Agenda for Graduate Education*, University of Toronto Press, ISBN 978-1-4875-0861-6, 2021.**
5. Mitchell, B.S., et al., "Best Practices in International Research Experiences for Graduate Students," Final Report, 2019.
4. Mitchell, B.S., "Great Expectations," *Graduate & Postdoctoral Chemist*, American Chemical Society, Washington, DC **5**[2] p. 2, (2018)
3. Mitchell, B.S., M. Vögler, and M. Nerad, "Evaluating the International Research Experiences for Graduate Students," Final Report, Council of Graduate Schools, Washington, DC (2016).
2. "Evaluating International Research Experiences: Musings from the CGS/NSF Dean-in-Residence," *GradEdge*, **5**[3], Council of Graduate Schools (2016).
1. "Making Assessment Part of Our Genetic "Makeup": A View from the CGS/NSF Dean-in-Residence," *GradEdge*, **4**[4], Council of Graduate Schools (2015).

## RESEARCH INTERESTS

- Graduate Education; Nanostructured Materials Processing; Additive Manufacturing

## PEER-REVIEWED TECHNICAL PUBLICATIONS (2368 total citations, *h*-index = 23, GoogleScholar 8/11/2025)

71. Vanegas, J.P., A. Reusch, B.S. Mitchell, and M.J. Fink, "Facet-controlled Synthesis of Plasmonic Gold Nanoparticles Using Silicon Nanoparticles as a Reducing Agent," in preparation (2025).
70. Garcia, AL, BS Mitchell, A Reusch, MJ Fink, JP Hinestroza, Y Ko, and JP Vanegas, "Click-Ready Gold Nanoparticles from Solvent-Free Mechanochemistry: 2-Propynylamine as a Reducing Agent and Surface Ligand," *Materials*, in press (2025).
69. Vanegas, J.P., A. Reusch, M.J. Fink, and B.S. Mitchell, "Confirmation of n-Hexane as an Inert Co-Solvent in the Production of Functionalized Silicon Nanoparticles from Reactive High-Energy Ball Milling," *Part. Part. Sys. Charact.*, 2300052, https://doi.org/10.1002/ppsc.202300052 (2023).
68. Wright, J., and B.S. Mitchell "Reactive Cavitation Erosion as a Technique for Production of Functionalized Copper Hydroxychloride Nanomaterials" *J Phys Comm*, DOI: 10.1088/2399-6528/ab8f3a **5**[4], 051002, (2020).
67. Wright, J., and B.S. Mitchell "Power Law Modeling of Acoustic Cavitation Erosion: The Hemispherical Pit Model," *J Phys Comm*, DOI: 10.1088/2399-6528/ab0a17, **3**:3, 035014 (2019).
66. Wang, H., Z. Xu, M.J. Fink, D. Shchukin, and B.S. Mitchell, "Functionalized Silicon Nanoparticles from Reactive Cavitation Erosion," *ChemComm,* DOI: 10.1039/C4CC06991A, **51**(8), 1465 - 1468 (2015).
65. Hallmann, S., M.J. Fink, and B.S. Mitchell, "Williamson Ether Synthesis: An Efficient One-Step Route for Surface Modifications of Silicon Nanoparticles," *J. Exp. Nanosci.*, DOI:10.1080/17458080.2013.848299, **10**(8), 588-598 (2015).
64. Xu, Z., Y. Li, T. Purkait, B. Zhang, A. Alb, B.S. Mitchell, S.M. Grayson, and M.J. Fink, "Water Soluble PEGylated Silicon Nanoparticles and Their Assembly into Nanoparticle Arrays," *J. Nanopart. Res.,* DOI 10.1007/s11051-015-2869-9; **17**:56*,* 1-16 (2015).
63. Mitchell, B.S., "Nanostructures from Reactive High-Energy Ball Milling," in *Handbook of Mechanical Nanostructuring*, M. Aliofkhazraei, editor, Vol. 2, ISBN 978-3-527-33506-0, Wiley-VCH, p. 493 (2015).
62. Li, Kuang, B.S. Mitchell, and M.J. Fink, "Silicon Nanoparticles Synthesized through Reactive High Energy Ball

Milling: Enhancement of Optical Properties from the Removal of Iron Impurities," *J. Exp. Nanosci.*, DOI: 10.1080/17458080.2014.989552 (2015).

61. Jayawickramarajah, J.; X. Su; L. Kuang, C.H. Battle, T. Shaner, B.S. Mitchell, and M.J. Fink, "A Mild Two-Step Method to Construct DNA-Conjugated Silicon Nanoparticles: Scaffolds for the Detection of MicroRNA-21," *Bioconj. Chem.*, **25** [10], 1739–1743, DOI: 10.1021/bc5004026, **25**(10), 1739-1743 (2014).
60. Azizi, A., T. Khosla, B.S. Mitchell, N. Alem, and N.S. Pesika, "Tuning Carbon Content and Morphology of FeCo/Graphitic-carbon Core-shell Nanoparticles using a Salt-Matrix Assisted CVD Process," *Part. Part. Syst. Charact.,* **31**, 474–480, DOI: 10.1002/ppsc.201300259 (2014).
59. Bhattacharjee, S., IMCM Rietjens, M.P. Singh, R.J. Clark, T.M. Atkins, G.M. Alink, A. Louie, S.M. Kauzlarich, J.G.C. Veinot, M.J Fink, B.S. Mitchell, T. Purkait, A.T.M. Marcelis, and H. Zuilhof,"Cytotoxicity of Surface-functionalized Silicon and Germanium Nanoparticles: The Dominant Role of Surface Charges," *Nanoscale*, **5**, 4870-4883 (2013).
58. Hallmann, S., M.J. Fink, and B.S. Mitchell, "The Mechanochemical Formation of Functionalized Semiconductor Nanoparticles for Biological, Electronic and Superhydrophobic Surface Applications,"*Ceramic Transactions*, **229**, 129-142 (2011).
57. Verdoni, L., M.J. Fink, and B.S. Mitchell, "A Fractionation Process of Mechanochemically-Synthesized Blue Luminescent Alkyl-Passivated Silicon Nanoparticles," *Chem. Eng. J.*, DOI: 10.1016/j.cej.2011.06.033, **72**, 591-600 (2011).
56. Hallmann, S., M.J. Fink, and B.S. Mitchell, "Mechanochemical Synthesis of Functionalized Silicon Nanoparticles with Terminal Chlorine Groups," *J. Mat. Res.*, **26**[8], 1052-1060 (2011).
55. Hallmann, S., M.J. Fink, and B.S. Mitchell, "Wetting Properties of Silicon Films from Alkyl-Passivated Particles Produced by Mechanochemical Synthesis," *J. Coll. Int. Sci.*, **348**, 634-641 (2010).
54. Hallmann, S., M.J. Fink and B.S. Mitchell, "The Mechanochemical Formation of Functionalized Semiconductor Nanoparticles for Biological, Electronic and Superhydrophobic Surface Applications," MS&T 2010 Proceedings, Houston, TX, October 30, 2010.
53. Heintz, A.S., M.J. Fink, and B.S. Mitchell, "Silicon Nanoparticles with Chemically Tailored Surfaces," *App. Organometallic Chem.*, **24**[3], 236-240 (2010).
52. Heintz, A.S., J.E. Gonzales, M.J. Fink, and B.S. Mitchell, "Catalyzed Self-Aldol Reaction of Valeraldehyde via a Mechanochemical Method" *J. Mol. Catal. A*, **304**, 117-120 (2009).
51. Moster, A.L. and B.S. Mitchell, "Hydration and Proton Conduction in Nafion®/Ceramic Nanocomposite Membranes Produced by Solid State Processing of Powders from Mechanical Attrition," *J. App. Pol. Sci.*, **113**[1] 243-250 (2009).
50. Moster, A.L. and B.S. Mitchell, "Mechanical and Hydration Properties of Nafion®/Ceramic Nanocomposite Membranes Produced by Mechanical Attrition," *J. App. Pol. Sci.*, **111**[2] 1144-1150 (2009).
49. Schexnaydre, R. and B.S. Mitchell, "Solid State Blending of Poly(ethylene terephthalate) with Polystyrene: Extent of PET Amorphization and Compositional Effects on Crystallization," *J. Pol. Sci. B Pol. Phys.*, **46**[13] 1348-1359 (2008).
48. Schexnaydre, R. and B.S. Mitchell, "Solid State Blending of Poly(ethylene terephthalate) with Polystyrene: Extent of Compatibilization and its Dependence on Blend Composition," *Pol. Eng. Sci.*, **48**[4], 649-655 (2008).
47. Heintz, A., M. Fink and B.S. Mitchell, "Mechanochemical Synthesis of Blue Luminescent Alkyl/Alkenyl-Passivated Silicon Nanoparticles" *Adv. Mat.*, **19**[22], 3984-3988 (2007).

46. Schexnaydre, R. and B.S. Mitchell, "Synchrotron Infrared Microspectroscopy Characterization of Heterogeneities in Solid-State Blended Polymers," *Mat. Let.*, **61,** 2151–2155 (2007).

45 Mitchell, B.S., H. Ashbaugh, J. Prindle, and V.T. John, "From Survival to Renewal - Katrina and its Aftermath at Tulane's Chemical and Biomolecular Engineering Department," *Chem. Eng. Ed.*, **40**[2], 80-87 (2006).

44. Mitchell, B.S., "Formation and Characterization of Highly Interfacial Hybrid Nanocomposites," *Rev. Adv. Mat. Sci.*, Advanced Center Study, St. Petersburg, Russia, **10**[3], 239-242 (2005).

43. De Castro, C.L., and B.S. Mitchell, "Crystal growth kinetics of nanocrystalline aluminum prepared by mechanical attrition in nylon media," *Mat. Sci. Eng. A*, **396**[1-2],124-128 (2005).

42. Mitchell, B.S. and V. J. Law, "Community-Based Presentations in the Unit Operations Laboratory," *Chem. Eng. Ed.*, **39**[2], 160-163(2005).

41. Roy, S., I.S. Dubenko, M. Khan, E.M. Condon, J. Craig, M. Ali, W. Liu and B.S. Mitchell, "Magnetic Properties of Perovskite-derived Air-Synthesized $R$BaCo$_2$O$_{5+\delta}$($R$=La-Ho) Compounds," *Phys. Rev. B*, **71**, 024419-1 (2005).

40. Schexnaydre, Ryan, and B.S. Mitchell, "Nanoscale polymer blends via mechanical milling," AIChE Annual Meeting, Conference Proceedings, Cincinnati, OH, United States, Oct. 30-Nov. 4, 2005 (2005).

39. Haynes, S.D. and B.S. Mitchell, "Preparation and Characterization of Ball-Milled Nafion Powders for Membrane Applications," *J. App. Pol. Sci.*, **93**[5], 2275–2281 (2004).

38. Hampsey, J.E., C. De Castro, B. McCaughey, D. Wang, B.S. Mitchell and Y. Lu, "Preparation of Micron and Sub-Micron Sized Nanostructured Silica Particles Using High Energy Ball Milling," *J. Am. Ceram. Soc.*, **87**[7], 1280-1286 (2004).

37. Mitchell, B.S., C.L. De Castro, A. Moster and R. Schexnaydre, "Highly Interfacial Hybrid Nanocomposites," Proceedings, 7th International Conference on Nanostructured Materials, Wiesbaden, Germany, June 23, 2004.

36. Mitchell, B.S., "The Use of Cooperative Learning Exercises in Materials Science and Engineering Instruction," *J. Mat. Ed.*, **25**[4-6], 165-178 (2003).

35. Hampsey, J.E.; De Castro, C.L.; McCaughey, B.F.; Wang, D.; Mitchell, B.S.; Lu, Y., "Micron to sub-micron sized highly ordered mesoporous silica particles prepared using a high energy ball milling process" *Materials Research Society Symposium Proceedings*, (2003), **775**, p. 83-88.

34. Hampsey, J.E.; DeCastro, C.; McCaughey, B.F.; Wang, D.; Mitchell, B.S.; Lu, Y., "Preparation of micron to submicron-sized mesoporous silica particles using high-energy ball milling," *Abstracts of Papers, 225th ACS National Meeting*, New Orleans, LA, March 23-27, 2003 (2003).

33. De Castro, C. and B.S. Mitchell, "The Use of Polymeric Milling Media in the Reduction of Contamination During Mechanical Attrition," *J. Mat. Res.*, **17**[12], 2997-2999 (2002).

32. De Castro, C. and B.S. Mitchell, "Nanoparticles from Mechanical Attrition," in *Synthesis, Functionalization and Surface Treatment of Nanoparticles*, M.I. Baraton, editor, American Scientific Publishers, 2003, p.1.

31. Müller E, D. Kurtenbach, G. Roewer, E. Brendler, and B.S. Mitchell, "Crystallization Kinetics of Polysilane Derived SiC," *Key Eng. Mat.*, **206**[2], 55-58, (2002)

30. Zhang, H.Y., N. Maljkovic, and B.S. Mitchell, "Structure and Interfacial Properties of Nanocrystalline Aluminum/Mullite Composites," *Mat. Sci. Eng. A*, **326**[2], 315-321 (2002).

29. Mitchell, B.S., "Nanocrystallinity in Heat Treated Calcium Aluminate Fibers," *Mat. Let.*, **48**[5], 316-318 (2001).

28. Mitchell, B.S., "MicroRaman Analysis of Calcium Aluminate Fibers Formed by Inviscid Melt Spinning (IMS)," *Mat. Let.*, **45**[2], 138-142 (2000).

27. Xiao, Z. and B.S. Mitchell, "Mullite Decomposition Kinetics and Melt Stabilization in the Temperature Range 1900-2000°C," *J. Am. Cer. Soc.*,**83**[4],761-767 (2000).

26. Zhang, H.Y. and B.S. Mitchell, "A Method for Determining Crystallization Kinetic Parameters from One Non-isothermal Calorimetric Experiment," *J. Mat. Res.*, **15**[4], 1000-1007 (2000).
25. Fondeur, F. and B.S. Mitchell, "A Modified Diffuse Reflectance Infrared Fourier Transform Spectroscopy Cell for Depth Profiling of Ceramic Fibers" *Spectrochim. Acta A* **56**[3], 467-473 (2000).
24. Mitchell, B.S.; Zhang, H.Y.; Ade, M.; Kurtenbach, D.; Müller, E. "Formation of Nanocrystalline SiC Powder from Chlorine-containing Polycarbosilane Precursors;" *Materials Research Society Symposium - Proceedings The 1999 MRS Fall Meeting - Symposium F 'Nanophase and Nanocomposite Materials III'* Nov 29-Dec 2 1999 v581 2000 Boston, MA, Materials Research Society Warrendale PA USA p 205-209.
23. Kurtenbach, D., M. Ade, E. Müller, and B.S. Mitchell, "Kinetics of nucleation and crystallization of amorphous SiC structures," *Freiberg. Forschungsh. B*, **B295**, 293-300 (1999).
22. Kurtenbach, D., B.S. Mitchell, H. Zhang, M. Ade and E. Müller, "Crystallization Kinetics of Amorphous Silicon Carbide Derived from Polymeric Precursors," *Thermochim. Acta.*, **337**[1-2], 155-161 (1999).
21. Mitchell, B.S. "A Chemical Engineering Graduate Course in Materials Design," *Chem. Eng. Ed.*, **33**[4], 262-265 (1999).
20. Zhang, H.Y. and B.S. Mitchell, "Thermal Expansion Behavior and Microstructure in Bulk Amorphous and Nanocrystalline Selenium by Thermomechanical Analysis," *Mat. Sci. Eng. A*, **270**[2], 237-243 (1999).
19. Li, W. and B.S. Mitchell, "Nucleation and Crystallization in Calcium Aluminate Glasses," *J. Non-crys. Sol.*, **255**[2-3], 199-207, (1999).
18. Xiao, Z. and B.S. Mitchell, "Optimization of Process Parameters in the Production of Mullite Fibers by Inviscid Melt Spinning," *Chem. Eng. Comm.*, **173**, 123-133 (1999).
17. Mitchell, B.S., H.Y. Zhang, N. Maljkovic, M. Ade, D. Kurtenbach and E. Müller, "Formation of Nanocrystalline SiC Powder from Chlorine-Containing Polystyrene/Polycarbosilane Precursors," *J. Am. Cer. Soc.*, **82**[8], 2249-2251 (1999).
16. Mitchell, B.S., "Inviscid Melt Spinning of Mullite Fibers," *Ceramic Engineering and Science Proceedings*, American Ceramic Society, **20**[4], 267-273 (1999).
15. Xiao, Z. and B.S. Mitchell, "The Production of Mullite Fibers by Inviscid Melt Spinning," *Mat. Lett.*, **37**[6], 359-365 (1998).
14. Mitchell, B.S., F. Fondeur, Z. Xiao, W. Li and S. Bennett, "The Effect of Lubricant on the Surface Structure of Aluminosilicate Fibers," *J. Am. Cer. Soc.*, **81**[12], 3333-3336 (1998).
13. Fondeur, F. and B.S. Mitchell, "Fourier Transform Infrared Studies of Propane Pyrolysis over Calcium Aluminate Melts," *J. Am. Ceram. Soc.*, **81**[4], 1045-1049 (1998).
12. Fondeur, F. and B.S. Mitchell, "Infrared Studies of Preparation Effects in Calcium Aluminate Glasses,"*J. Non-crys. Sol.*, **224**[2], 184-190 (1998).
11. Mitchell, B.S., "Crystallization and Solidification Studies in Calcia-Alumina Fibers Formed via Inviscid Melt-Spinning (IMS)," *Ceramics International*, **24**[1], 67-71 (1998).
10. Mitchell, B.S., "Use of Spreadsheets in Introductory Statistics and Probability," *Chem. Eng. Ed.*, **31**[3], 194-200 (1997).
9. Fondeur, F. and B.S. Mitchell, "Infrared Studies of Calcia-Alumina Fibers," *J. Am. Cer. Soc.*, **79**[9], 2469-2473 (1996).
8. Mitchell, B.S., Y.M. Sung, and K.Y. Yon, "Microstructure and Interphase Characterization of Inviscid Melt-Spun CaO-$Al_2O_3$ Fibers for Composite Applications," *Proceedings of the Second International Conference on Composites Engineering*, ICCE, 513-514 (1995).

7. Yon, K.Y., B.S. Mitchell, J.A. Koutsky and S.A. Dunn, "Introduction of New Reinforcements for Cementitious Materials - Calcia-Alumina (CA) Fibers Formed by the Inviscid Melt-Spinning (IMS) Process" *Cement and Concrete Composites*, **15**[3], 165 (1993).
6. Yon, K.Y., B.S. Mitchell, J.A. Koutsky and S.A. Dunn, "Chemical Stability of Inviscid Melt-Spun Fibers of Calcia-Alumina in Aqueous Media," *Mat. Chem.Phys.*, **34**[3-4], 219 (1993).
5. Mitchell, B.S., J.A. Koutsky, S.A. Dunn and K.Y. Yon, "Viscosity of Eutectic Calcia-Alumina Melts," *Mat. Chem. and Phys.*, **34**[1], 81 (1993).
4. Mitchell, B.S., J.A. Koutsky, S.A. Dunn and K.Y. Yon, "Phase Identification in Calcia-Alumina Fibers Crystallized from Amorphous Precursors," *J. Non-crystalline Solids*, **152**[2-3], 143 (1993).
3. Mitchell, B.S., J.A. Koutsky, S.A. Dunn and K.Y. Yon, "The Production of BaO-$TiO_2$ Fibers via Inviscid Melt-Spinning," *Chem. Eng. Comm.*, **106**, 87 (1991).
2. Mitchell, B.S., and J.A. Koutsky, "Binder Droplet-Fiber Interactions in the Production of Thermal Insulations," *J. Building Physics (formerly J. Thermal Insulation)*, **15**, 30-44 (1991).
1. Mitchell, B.S., J.A. Koutsky, S.A. Dunn and K.Y. Yon, "Attenuation Effects in Aluminum and Lead Fibers Formed by Inviscid Melt-Spinning (IMS)," *Mat. Let.*, 10[1-2], 71 (1990) DOI 10.1016/0167 577X(90)90017 G.

## PATENTS

2. Mitchell, B.S., M. Fink and A. Heintz, "Method of Forming Stable Functionalized Nanoparticles," USP 7,883,995, Feb. 8, 2011; Canadian Patent 2,724,951, Sept. 7, 2021; International Patent Application Serial No. PCT/US08/65534, European, Japanese and Korean Patents pending.
1. Mitchell, B.S., H.Y. Zhang and Z. Xiao, "Inviscid Melt Spinning of Mullite Fibers," USP 6,312,626, Nov. 6, 2001.

## TEXTBOOKS

2. Mitchell, B.S., *Materials Engineering and Science Engineers: Principles, Properties, and Processes*, John Wiley & Sons, Inc., 2024, 2nd edition, ISBN 978-1-119-8570-5
1. Mitchell, B.S., *An Introduction to Materials Engineering and Science for Chemical and Materials Engineers*, John Wiley & Sons, Inc., 2004, ISBN 0-471-43623-2.

## ADMINISTRATIVE PRESENTATIONS AND PANEL DISCUSSIONS

25. "The Future of Postgraduate Education in a Postglobalization Economy," The Future of Transatlantic Relations in Science and Higher Education: Celebrating 100 Years of DAAD, April 5, 2025, New York, NY.
24. "Reflections on the Impact of COVID-19 on the Findings and Recommendations of the 2019 NASEM Report on Mentoring in STEMM," Council of Graduate Schools Global Summit, November 8, 2022, Cairo, Egypt.
23. "Best Practices in International Research Experiences for Graduate Students," Research Policy Forum, Council of Graduate Schools, April 27, 2020 (virtual).
22. "International Research Experiences, Global Competencies, and Scientific Mobility: A U.S. Perspective," DAAD/AvH Alumni Conference: "Knowledge, Trust, and the Future of Democracy: Transatlantic Perspectives on the Role of Scholarship and Science in Society," October 6, 2018, Atlanta, GA.
21. "Impact of International Experiences on Graduate Education," Discussant, Graduate Panel II: Next Generation Leadership in International Research; UC Davis International Research Conference, September 18, 2018, Davis, CA (invited).
20. "Building Research Careers and Partnerships in an Era of Global Science." Alexander von Humboldt

Colloquium *Global Research in the 21st Century*, March 3, 2017, Washington, DC (invited).

19. "Measuring the Impact of International Research Experiences for STEM Graduate Students," 19th Annual Colloquium on International Engineering Education, November 3, 2016, Newport, RI (invited).
18. "Graduate Education Programs in North America: The Partner's Views," Deutsche Forschungsgemeinschaft IRTG-LS Workshop, October 21, 2016, New York, NY (invited).
17. "Wettbewerbsorientierung, Differenzierung, Profilierung," Wissenschaftskonferenze, Friederich-Ebert Stiftung, September 20, 2016, Berlin, Germany (invited).
16. "Assessing International Experiences and Activities," with K. Butler-Purry and S. Pratt, CGS Summer Workshop, Savannah, GA, July 11, 2016.
15. "Measuring the Impact of International Experiences," with M. Vögler, Webinar, Council of Graduate Schools, June 16, 2016.
14. Panel #4 "Taking Action: Translating good ideas into policy and best practices," Discussant, Future STEM Leaders, Washington, DC, May 4, 2016 (invited).
13. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF" with S. Brennan and G. Muller-Park (NSF), Northeastern Association of Graduate Schools, Waterloo, Ontario, Canada, April 15, 2016.
12. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF" with J. Middendorf and J. Schlatterer (NSF), Midwest Association of Graduate Schools, Chicago, IL, April 7, 2016.
11. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF," with C. Hemingway (NSF), Western Association of Graduate Schools, Socorro, NM, March 21, 2016.
10. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF," with E. Jones and E. Easter (NSF), Charlotte, NC, February 19, 2016.
9. "Strategic Initiatives in Graduate Education at the National Science Foundation" with G. Muller-Parker, R. Tankersley, and R. Wakimoto, CGS Annual Meeting, Seattle, WA, December 4, 2015.
8. "Trends in U.S. Postgraduate Education," China International Forum on Graduate Education, Beijing, PR China, October 25, 2015 (invited).
7. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF" with J. Schlatterer (NSF), Council of Graduate Schools Summer Institute, Quebec City, Canada, July 13, 2015.
6. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF" with R. Tankersley and J. Palais (NSF), Northeastern Association of Graduate Schools, Salem, MA, April 18, 2015.
5. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF," with P. Murthy and C. Hemingway (NSF), Midwestern Association of Graduate Schools, St. Louis, MO, April 16, 2015.
4. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF," with G. Muller-Parker and D. Park (NSF), Anchorage, AK, March 11, 2015.
3. "New Developments in the Division of Graduate Education: A Dialogue Between the Graduate Community and NSF," with E. Easter (NSF), Council of Southern Graduate Schools Annual Meeting, New Orleans, LA March 6, 2015.
2. "Research Opportunities in Germany," 17th Annual Colloquium on International Engineering Education,

Providence, RI, November 7, 2014.

1. "Innovation and Interdisciplinarity in Graduate Education at Tulane University," Council of Graduate Schools Annual Meeting, San Francisco, December 5, 2009.

## TECHNICAL PRESENTATIONS (Personally Presented)

51. "Advances in Surface Functionalization of Silicon Nanoparticles Formed by Reactive High Energy Ball Milling (RHEBM)," Department of Chemistry, University of Texas Rio Grande Valley, April 11, 2023 (virtual).
50. "Advances in Surface Functionalization of Silicon Nanoparticles Formed by Reactive High Energy Ball Milling (RHEBM)," Department of Chemical Engineering, Oklahoma State University, October 5, 2021.
49. "Advances in Surface Functionalization of Silicon Nanoparticles Formed by Reactive High Energy Ball Milling (RHEBM)," 9th International Conference on Mechanochemistry and Mechanical Alloying (INCOME), Kosice, Slovakia, September 4, 2017.
48. "A Comparison of Mechanochemical and Sonochemical Syntheses of Functionalized Semiconductor Nanoparticles," Materials Research Society Spring Meeting, San Francisco, CA, April 9, 2015. 47. "Mechanochemical Synthesis of Functionalized Si Nanoparticles," Max Planck Institute for Colloids and Interface Science, Golm, Germany, July 10, 2012.
46. "The Mechanochemical Formation of Functionalized Semiconductor Nanoparticles for Electronic and Superhydrophobic Surface Applications," Nanotech 2010, Anaheim, CA, June 24, 2010.
45. "New Surface Chemistries and Process Innovations in the Production of Surface Functionalized Semiconductor Nanoparticles," NSF/CMI Grantees Conference, Honolulu, HI, June 22-25, 2009.
44. "Novel Nanocomposite Structures from Mechanical Attrition," NSTI Nanotech 2008, Boston, MA, June 5, 2008 (Invited).
43. "New Surface Chemistries and Process Innovations in the Production of Surface Functionalized Semiconductor Nanoparticles," NSF/CMI Grantees Conference, Knoxville, TN, January 7-10, 2008.
42. "Nanopartikeln: Andwendungen und Entwicklungen," DAAD International Symposium, Sao Paulo, Brazil, June 10, 2007.
41. "Incorporation of Biological Materials into an Introductory Materials Engineering Course," ASEE Annual Meeting, Chicago, IL, June 21, 2006.
40. "Synchrotron IR for Characterization of Polymer Blends," CAMD Summer Workshop, Baton Rouge, LA, May 24, 2006.
39. "Interface-Property Relationships in Hybrid Nanocomposites from Near Net-Shape Manufacturing," Nanotech 2006, Boston, MA, May 10, 2006.
38 "Polymer Research at Tulane University," Bridgestone Americans Center for Research and Technology, Akron, OH, January 9, 2006.
37. "Near Net-Shape Manufacturing of Nafion® Membranes for Fuel Cell Applications" with Amanda Moster, AIChE Annual Meeting, Cincinnati, OH, November 1, 2005.
36. "Formation and Characterization of Highly Interfacial Hybrid Nanocomposites," 2nd International Conference on Nanomaterials and Nanotechnologies, Iraklion, Crete, June 19, 2005.
35. "Nanoparticles from Mechanical Attrition," University of Arkansas, Dept. of Mechanical Engineering, June 7, 2005 (Invited).
34. "Nanoparticles and Nanocomposites from Mechanical Attrition," Materials Modification, Inc., Fairfax, VA, June 2, 2005.

33. "Highly Interfacial Hybrid Nanocomposites," 5th Louisiana Conference on Advanced Materials and Emerging Technologies, Tulane University, January 21, 2005.
32. "Near Net-Shape Manufacturing of Aluminum/Mullite Nanocomposites," DMII Grantees Conference, Phoenix, AZ, January 4, 2005.
31. "Near Net-Shape Manufacturing of Hybrid Polymeric Nanocomposites," AIChE Annual Meeting, Austin, TX, Nov. 9, 2004.
30. "Incorporation of Biological Materials into an Introductory Materials Engineering Course," AIChE Annual Meeting, Austin, TX, November 9, 2004.
29. "Highly Interfacial Hybrid Nanocomposites," Dept. Of Chemical Engineering, University of Louisiana-Lafayette, Lafayette, LA, November 2, 2004 (Invited).
28. "Highly Interfacial Hybrid Nanocomposites," 7th International Conference on Nanostructured Materials, Wiesbaden, Germany, June 23, 2004.
27. "The Chemist's Role in the Changing Landscapes of Chemical Engineering and Materials Science," ACS Northwest Louisiana Local Section, Shreveport, LA, March 15, 2004 (Invited).
26. "Highly Interfacial Hybrid Nanocomposites," Department of Chemical Engineering, Kansas State University, Manhattan, KS, February 26, 2004 (Invited).
25. "Investigations into the interfacial and mechanical properties of aluminum/mullite nanocomposites," NSF/DMII Grantees Conference, Dallas, TX, January 4-9, 2004.
24. "Materials Research at Tulane University," 2003 Louisiana Materials Research and Development Conference, Lafayette, LA, November 4, 2003.
23. "Factorial Analysis of Processing Effects on the Mechanical Properties of WHIPOX Composites," German Aerospace Agency, Cologne, Germany, July 24, 2003.
22. "The Formation of Mullite Fibers from the Melt," German Aerospace Agency, Cologne, Germany, March 27, 2003.
21. "Investigations into the interfacial and mechanical properties of aluminum/mullite nanocomposites," NSF/DMII Grantees Conference, Birmingham, AL, January 5-9, 2003.
20. "Investigations into the interfacial, mechanical, and corrosion properties of nanocrystalline mullite-reinforced nanocrystalline aluminum composites," NANO2002, Orlando, FL, June 19, 2002.
19. "Aluminum/Mullite Nanocomposites from Mechanical Attrition," Dept. Of Chemical Engineering, Tennessee Technological University, Cookeville, TN, May 20, 2002 (Invited).
18. "Metal-Ceramic Nanocomposites from Mechanical Attrition," Technanogy, Inc., Irvine, CA, April 12, 2002.
17. "Polymer-Ceramic Nanocomposites from Mechanical Attrition," Ceramatec., Salt Lake City, UT, April 11, 2002.
16. "Near Net-Shape Manufacturing of Nanocrystalline Aluminium/Mullite Composites," NSF Design, Service and Manufacturing Grantees and Research Conference, San Juan, PR, January 10, 2002.
15. "Nanostructured Composites: To Build Up or To Break Down?" Center on Nanotechnology, University of Washington, Seattle, WA, October 23, 2001 (Invited).
14. "Nanostructured Ceramics," Kyocera, Inc., Vancouver, WA, February 9, 2001.
13. "Materials Research at Tulane University," Louisiana Materials Science Conference, University of New Orleans, New Orleans, LA August 17, 2000
12. "Engineering Ethics: A Modular Lecture for Chemical Engineering Students," AIChE Spring Mtg, Atlanta, GA, Mar 9, 2000
11. "Formation of Nanocrystalline SiC Powder from Chlorine-Containing Polystyrene/Polycarbosilane

Precursors," Materials Research Society Fall Meeting, Boston, MA, November 30, 1999.

10. "Formation of Nanocrystalline SiC Powder from Chlorine-Containing Polystyrene/Polycarbosilane Precursors," Partners in Scientific Collaboration, Oak Ridge National Laboratories, Oak Ridge, TN, August 18, 1999.
9. "Contact Angle Measurements of Droplets on Fibers," Exxon R & D Labs, Baton Rouge, LA, April 1, 1999 (Invited).
8. "Melt Spinning of Mullite Fibers," AcerS 23rd Annual Cocoa Beach International Conference on Engineering Ceramics and Structures, Cocoa Beach, FL, January 26, 1999.
7. "Hydrolytic Stability of Calcium Aluminate Fibers for Cement Composites," AIChE Annual Meeting, Miami Beach, FL, November 19, 1998.
6. "Präparation, Analyse und Struktur von CA-Aluminat-Fasern," Bundesanstalt für Materialforschung und -prüfung, Berlin, Germany, August 6, 1998.
5. "Evaluation of Ceramic Fibers Produced by Inviscid Melt Spinning,"Institut für Keramische Werkstoffe, Technische Universität Freiberg, Freiberg, Germany, July 7, 1998.
4. "The Early Introduction of Design Fundamentals into the Chemical Engineering Curriculum," ASEE Annual Meeting, Milwaukee, WI, June 18, 1997.
3. "The Production of Mixed-Metal Oxide Fibers by Inviscid Melt Spinning," ACerS Annual Meeting, Cincinnati, OH, May 14, 1997.
2. "Carbon Deposition and Stream Stabilization in $CaO\text{-}Al_2O_3$ Fibers Formed via IMS," Ohio University Seminar Series, Athens, OH, January 23, 1996 (Invited).
1. "Microstructure and Interphase Characterization of Inviscid Melt-Spun $CaO\text{-}Al_2O_3$ Fibers for Composite Applications," ICCE/2, New Orleans, LA, August 21, 1995.

## OUTREACH PRESENTATIONS

The presentation "From Silly Putty to Superconductors: Career Opportunities in Engineering and Science," has been presented through the Louisiana Board of Regents "Speaking of Science" Program to school children at the following locations:

36. Calcasieu Parish Public Library, Lake Charles, LA, September 22, 2018.
35. St. Catherine of Siena School, Metairie, LA, April 4, 2018.
34. Fontainebleau High School, Mandeville, LA, November 29, 2017.
33. JH Williams Middle STEM, Abbeville, LA, January 26, 2017.
32. Archbishop Hannan High School, Covington, LA, January 24, 2017.
31. Cathedral-Carmel School, Lafayette, LA, April 12, 2013.
30. Louisiana School for Math, Science and the Arts, Natchitoches, LA, January 20, 2012.
29. Natchitoches Magnet School, Natchitoches, LA, May 7, 2010.
28. Lake Harbor Middle School, Mandeville, LA, January 29, 2010.
27. Zachary High School, Zachary, LA, April 24, 2009.
26. Jewel M. Sumner High School, Kentwood, LA, March 6, 2009.
25. Girl Scouts of America Career Day, Gonzales, LA, October 10, 2008.
24. McNeese State University Upward Bound Program, Lake Charles, LA, June 23, 2008.
23. Albany Middle School, Albany, LA, May 6, 2008.
22. Springfield Elementary School, Springfield, LA, April 10, 2008.

21. ACS Spring National Meeting, New Orleans, LA, April 6, 2008.
20. University of Louisiana-Lafayette, Lafayette, LA, March 31, 2008.
19. St. Rita Elementary School, Harahan, LA, January 18, 2008.
18. Springfield Elementary School, Springfield, LA, May 1, 2007.
17. Monterey High School, Monterey, LA, October 27, 2006.
16. Springfield Elementary School, Springfield, LA, April 13, 2006.
15. Enon Elementary School, Franklinton, LA, November 11, 2005.
14. Springfield Elementary School, Springfield, LA, May 4, 2005.
13. Evangeline Elementary School, Evangeline, LA, January 14, 2005.
12. Airline High School, Bossier City, LA, October 8, 2004.
11. Springfield Elementary School, Springfield, LA, April 29, 2004.
10. Monterey High School, Monterey, LA, April 2, 2004.
9. St. Angela Merici School, Metairie, LA, February 13, 2004.
8. Northwestern Middle School, Zachary, LA, February 12, 2004.
7. Lukeville Elementary School, Lukeville, LA, February 21, 2003.
6. Dwight D. Eisenhower Elementary School, New Orleans, LA, February 3, 2003.
5. Louisiana Art and Science Museum, Baton Rouge, LA, December 14, 2002.
4. Breaux Bridge Elementary School, Breaux Bridge, LA, May 6, 2002.
3. Springfield Elementary School, Springfield, LA, May 1, 2002.
2. St. Pius Elementary School, Lafayette, LA, April 16, 2002.
1. Natchitoches Central H. S., Natchitoches, LA, April 10, 2000.

## GRANTS

32. Tulane/Carol Lavin Bernick Faculty Grants, "A Research Agenda for Graduate Education" $9,500, 7/2020 - 6/2021.
31. NSF/OISE, "Workshop: Best Practices in International Research Experiences for Graduate Students," $119,139 (including supplements), 9/1/2018 - 8/31/2021.
30. Louisiana Board of Regents/ITRS "High Performance Anodes for Lithium Ion Batteries," $257,400 6/2018 - 6/2022.
29. Louisiana Board of Regents CIMM Seed Funding, "Nanoparticle Inoculants in Aluminum Alloy Powder Feedstocks for Laser-Based 3D Printing," $10,000, 1/2018-8/2019.
28. Tulane/Carol Lavin Bernick Faculty Grants, "Inkjet Printing of Biologically Relevant Materials from Reactive Cavitation Erosion," $15,000, 7/2017 - 6/2018.
27. Louisiana Board of Regents/OPT-IN "Advanced Manufacturing of Semiconductor Nanoparticle-Based Phosphors for Solid-State Lighting," $70,000, with Advano, 1/15 - 12/16.
26. Louisiana Board of Regents/Pfund, "Biologically-Relevant Materials for Advanced Manufacturing," $10,000, 10/14 - 12/15.
25. NSF/CMMI, "New Surface Chemistries and Process Innovations in the Production of Surface Functionalized Semiconductor Nanoparticles," with M. Fink and H. Ashbaugh, $362,000, 7/2007 - 6/2011.
24. NASA "APTEC," with D. De Kee et al., $0.9M, 12/2005 - 11/2007.
23. NSF/MRI: "Acquisition of a Field Emission Environmental Scanning Electron Microscope for Research and

Education in Nanomaterials and Biological Structures at Tulane University," Co-PI with Vijay John et al., $515,892.

22. Louisiana Board of Regents (BOR), "Preliminary Planning Grant for a Nanoscale Engineering and Science Center in Polymer-Based Nanostructures," $15,000, 4/2004-3/2005.
21. NASA "Tulane Institute for Macromolecular Engineering and Science," with D. De Kee, $1.8M, 7/2003 - 12/2004.
20. NSF/DMII/MPE "Collaborative Research: "Innovations in Net-Shape Composite Fabrication through Microscale Modeling of Infiltration," with Karsten Thompson (LSU), $102,900 (including supplements), 7/2002 - 6/2007.
19. NSF/DMII/Nano "Interfacial Investigations and Process Innovations in the Near Net-Shape Manufacturing of Aluminum/Ceramic Nanocomposites," $227,463 (including REU supplements) 04/2001 - 03/2005.
18. NASA "Tulane Institute for Macromolecular Engineering and Science," with D. De Kee, $2.5M, 4/2002 - 6/2003.
17. BOR/ENH "Sample Preparation Equipment for Advanced Materials Imaging and Analysis," with Robert Dotson, $15,925, 6/1/01 - 5/31/02.
16. LTTR, "SBIR Phase Zero: Commercialization of a Novel Fiber Spinning Process for Cement Composites," $3,000, 5/15/2000 - 5/31/2001.
15. DoE/EPSCoR, "Novel Nanostructured Materials: From Microstructure to Macroscopic Performance," $42,000, 1/1/2000 - 12/31/2000 (participant).
14. NSF/MRI, "Acquisition of a Scanning Transmission Electron Microscope for Advanced Materials Development," $602,293, 07/01/99 - 6/30/01.
13. DoD/EPSCOR "Development of Mullite Fibers for High Temperature Structural Applications," $575,168, 6/1/96-5/30/2000.
12. Engineering Foundation, "Formation of Superconducting Fibers by a Novel Melt Spinning Technique," $25,000, 9/1/98 - 8/31/99.
11. UES, Inc., "Formation of $Al_2O_3$-YAG Particulates by Unstabilized Inviscid Melt Spinning," $1,505, 4/15/98 - 5/31/98.
10. German Academic Exchange Service, "Study Visit to the Technische Universität Freiberg and BAM," $5,000 (approximate), 6/15/98 - 8/15/98.
9. Thermal Ceramics, "Evaluation of Surface Properties of Fibers-Phase II", $14,622, 10/15/97 to 1/15/98
8. Thermal Ceramics, "Evaluation of Mechanical and Surface Properties of Fibers," $18,685, 3/1/97 to 6/30/97.
7. LEQSF/TGEF "Funding Possibilities at NSF for Ceramic Fibers," $500, 3/1/96 through 4/1/96
6. ACS/PRF "Study of Hydrocarbon Pyrolysis and Carbon Deposition Rates in the Formation of Ceramic Fibers via Inviscid Melt-Spinning," $20,000, 9/1/95 through 8/31/97.
5. NSF/ARI "Acquisition of Thermal Analysis Equipment for Advanced Materials Design," $250,000, 10/15/95 - 6/30/97.
4. Dreyfus Foundation "Molecular Simulation and Visualization in the Undergraduate Chemical Engineering Curriculum," $36,540, 3/1/96 - 3/1/97.
3. Lilly Teaching Foundation "Development of Materials Science and Engineering Course" $3,000, 7/1/95 - 6/30/96
2. LEQSF/Enhancement "Instrumentation for Interface and Bulk Characterizations of Novel Materials," $146,250, 6/1/95 - 5/31/96

1. LaSPACE/REA "The Production of Ceramic Fibers via Inviscid Melt-Spinning in a Zero-Gravity Environment," $10,000, 2/15/95 - 2/14/96.

## POSTDOCTORAL ASSOCIATES

Dr. Haoyue Zhang, 2 papers published

Dr. Julie Vanegas, 2018-2021, 2 papers published, 1 in preparation

## GRADUATE STUDENTS

Fernando Fondeur, PhD, 1998. 5 papers published

Zhijun Xiao, PhD, 1998. 3 papers published

Wenyan Li, MS, 1998. 1 paper published

Nicika Maljkovic, MS, 2000. 1 paper published

Shawn D. Haynes, MS, 2003. 1 paper published

Claudio L. De Castro, PhD, 2005, 1 book chapter, 3 papers published.

Daniel U, MS, 2006, (co-advised with Y. Lu).

Ryan J. Schexnaydre, PhD, 2008. 3 papers published.

Amanda L. Moster, PhD, 2008. 2 papers published.

Cindy Hetzer, MS, 2008.

Andrew Heintz, PhD, 2008, 3 papers published, 1 patent issued.

Steffen Hallmann, PhD, 2011, 4 papers published.

Mingmeng Zhang, MS, 2011.

Luigi Verdoni, PhD, 2012. 1 paper published.

Alex Girau, MS, 2012.

Jeremy Wright, PhD, 2019. 2 papers published.

Amanda Reusch, PhD, 2023 one paper published, 2 in preparation

## UNDERGRADUATE STUDENTS

David Punsalan, B.S. 1997 (PhD 2001, U. Texas-Austin)

Roseanne Blenman (LAMP), 1998

Derek Russ (LAMP), 1998

Brian Smith, B.S. 1999

Karen Jack (LAMP), 1999

Cory McGraw, B.S. 2000

Stacey Bennett, B.S. 2000, 1 paper published

Steve Hardy, B.S. 2001

Jabari Robinson (LAMP), 2002

Jason Hinton, B.S. 2002, Senior Honors thesis

Emily Lesshaft, B.S. 2003

Matthew Bender, B.S. 2003

Angele Geary, B.S. 2003, Senior Honors thesis

Alex Davis (LAMP), 2004

Laura Cummings, B.S. 2004, Senior Honors thesis

Jennifer Taylor Hardy, B.S. 2004

Derek Sanderson, B.S. 2005

Joy St. Dennis, B.S. 2005 (PhD 2011, Tulane)

John Galloway, B.S. 2006, Senior Honors thesis (PhD 2013, Northwestern U.)

Abigail Koester, B.S. 2007

Javier Gonzales (LAMP), 2007, 1 paper published

Whitney Stoppel, B.S. 2008, Senior Honors thesis (PhD 2013, UMass-Amherst)

Ashley Cagle (LAMP), 2009

Bryan Yonemoto, B.S. 2010, Senior Honors thesis (PhD 2015, University of Delaware)

Jontrell Green (LAMP), 2010

Michael Soforenko, 2010
Clarice Balconi-Lamica, 2011
Ruth Winkler, 2013
Quentin Boose, B.S., 2018
Mason Babin, B.S., 2019
Kelly Couget (Vanderbilt) - Summer 2017
Jack Theil, B.S., 2023