

## Professor Kathy Lu's Group Publications

### Patent:

1. K. Lu, M. K. Mahapatra, "Barium Oxide, Calcium Oxide, Magnesia, and Alkali Oxide Free Glass," US8,541,327, September 2013.
2. K. Lu, F. Shen, Tri-Layer CO<sub>3</sub>O<sub>4</sub>-SDC Protective Coating for Solid Oxide Fuel Cell Interconnects, U.S. Patent Application No: 62/318,369, April 2016.

### Publications:

#### Books:

1. K. Lu, Nanoparticulate Materials-Synthesis, Characterization, and Processing, John Wiley & Sons, Inc., Hoboken, New Jersey, ISBN: 978-1-1182-9142-9, 464 pages, October 2012.
2. K. Lu, Materials in Energy Conversion, Harvesting, and Storage, John Wiley & Sons, Inc., Hoboken, New Jersey, ISBN: 978-1-118-88910-7, 448 pages, September 2014.

#### Books Edited:

1. N. P. Bansal, J. P. Singh, A. Bhalla, M. M. Mahmoud, N. Jose Manjooran, G. Singh, K. Lu, G. Brennecka, Processing and Properties of Advanced Ceramics and Composites VI, Ceramic Transactions, Volume 249, ISBN: 978-1-118-99549-5, 375 pages, September 2014, Wiley.
2. K. Lu, N. J. Manjooran, R. Murakam, and G. Pickrell, Advances in Synthesis, Processing and Applications of Nanostructures, Ceramic Transactions, Volume 238; ISBN: 978-1-1182-7327-2, August 2012, Wiley.
3. K. Lu, N. Manjooran, M. Radovic, G. Pickrell, E. Medvedovski, E. A. Olevsky, C. Li, G. Singh, and N. Chopra, Advances in Nanomaterials and Nanostructures, Ceramic Transactions, Volume 229, ISBN: 978-1-118-06002-5, August 2011, Wiley.
4. K. Lu, C. Li, E. Medvedovski, E. A. Olevsky, Processing of Nanoparticle Materials and Nanostructured Films, Ceramic Transactions, Volume 223, 2010, ISBN 978-0-470-92731-1, Wiley.
5. T. Hinklin, K. Lu, Processing of Nanoparticle Structures and Composites: Ceramic Transactions, Volume 208, ISBN: 978-0-470-40846-9, August 2009, Wiley.

#### Book Chapters:

1. K. Lu, K. Ning, "Nanoscale Sintering," Metal Oxide Nanoparticles: Formation, Functional Properties and Interfaces, *Metal Oxide Nanoparticles: Formation, Functional Properties and Interfaces*, First Edition. Edited by Oliver Diwald and Thomas Berger. © 2021 John Wiley & Sons Ltd. Part III, Chapter 8, page 271-301.
2. K. Lu, W. Li, and B. Chen, "Sintering of Porous Materials," *Sintering: Mechanisms of Conventional Nanodensification and Field Assisted Processes*, Editors: Ricardo H. R. Castro, Klaus van Benthem, Springer, Engineering Materials 35, 2013, Volume 35, 115-136, DOI: 10.1007/978-3-642-31009-6\_6.
3. K. Lu, "Shaping of 3D Nanoceramics and Their Composites," *Handbook of Nanoceramics and Their Based Devices*, American Scientific Publishers, Edited by T.Y. Tseng and H. S. Nalwa, vol. 2, p 151-177, ISBN:1-58883-116-7, Stevenson Ranch, CA, 2009.
4. K. Lu and X. Zhu, "Liquid Nanoparticles: Synthesis and Characterization," *Encyclopedia of Nanoscience and Nanotechnology*, American Scientific Publishers, Stevenson Ranch, CA, 2010. Editor: H. S. Nalwa, ISBN: 1-58883-146-7, Volume 15, 537-574, 2010.

### **Journal papers:**

1. P. A. Loughney, S. B. Mujib, T. L. Pruyn, G. Singh, K. Lu, V. Doan-Nguyen, "Functional Polymer Derived Ceramic (PDC) Nanocomposites," *Journal of Applied Physics*, accepted.
2. Y.-J. Cho, K. Sun, G. Was, K. Lu, "In-situ microstructure observation of oxidized SiC layer in surrogate TRISO fuel particles under krypton ion irradiation," *Journal of Alloys and Compounds*, 920(5), 165833, 2022.
3. K. Lu, S. Singh, L. Shao, "Kr ion irradiation study of polymer derived SiFeOC-C-SiC nanocomposite," *Journal of the American Ceramic Society*, accepted.
4. W. Wang, S. Tamakloe, Z. Deng, L. Li, W. Cai, K. Lu, "Effects of processing temperature on the corrosion and tribocorrosion resistance of perhydropolysilazane-derived coatings on AISI 304 steel," *Surface & Coatings Technology*, 439, 128463, 2022.
5. S. Singh, K. Bawane, Z. Hu, L. Yang, Y. Chen, L. Shao, K. Lu, "Helium Ion Irradiation Effects on Microstructure Evolution and Mechanical Properties of Silicon Oxycarbide," *Ceramics International*, *Ceramics International*, 48 [11], 16063-16071, 2022.
6. S. K. D. Singh, J.-F. Dietiker, K. Lu, "Polysiloxane coatings on microspheres based on Multiphase Flow with Interface Exchange-Discrete Element Modelling," *Particuology*, 69, 88-99, 2022.
7. S. K. D. Singh, K. Lu, "SiOC Coatings on Ytria Stabilized Zirconia Microspheres Using a Fluidized Bed Coating Process," *Powder Technology*, 396 (A), 158-166, 2022.
8. N. Yang, C. Ophus, B. H. Savitzky, M. Scott, K. Bustillo, and K. Lu, "Amorphous and Crystalline Co-Existing SiOC Phase Analysis Using 4D-STEM," *Materials Characterization*, 181, 111512, 2021.
9. Y. J. Cho, D. Garcia, H. Yu, Z. Deng, L. Li, and K. Lu, "Oxidation Behaviors of Matrix-Grade Graphite During Water Vapor Ingress Accidents for High Temperature Gas-Cooled Reactors," *Carbon*, 185(15), 161-176, 2021.
10. A. Rau, K. Knott, and K. Lu, "Porous SiOC/SiC Ceramics Via an Active-Filler Catalyzed Polymer-Derived Method," *Materials Chemistry Frontiers*, 5, 6530-6545, 2021.
11. N. Yang, K. Lu, "Phase Content Prediction in Polymer-Derived Ceramics with Metal Additives," *Journal of the American Ceramic Society*, 104, 5379-5391, 2021.
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13. J. Zheng, K. Lu, "Electrically Conductive and Thermally Stable SiC-TiC Containing Nanocomposites via Flash Pyrolysis," *Journal of the American Ceramic Society*, 104(6) 2460-2471, 2021.
14. N. Yang, K. Lu, "Effects of Transition Metals on the Evolution of Polymer-Derived SiOC ceramics," *Carbon*, 171, 88-95, 2021.
15. L. Kong, A. Rau, N. Yang, K. Lu, "ZnO Nanoparticle-Poly(methyl methacrylate) Hybrids as Flexible Ultraviolet Shielding Films," *JOM*, 73(1), 432-440, 2021.
16. K. Bawane, K. Lu, X. Bai, J. Hu, M. Li, P. M. Baldo, E. Ryan "Microstructural Evolution of a Silicon Carbide-Carbon Coated Nanostructured Ferritic Alloy Composite during In-Situ Kr Ion Irradiation at 300°C and 450°C," *Journal of Materials Science and Technology*, 71 (30), 75-83, 2021.
17. Y. J. Cho, K. Lu, "High Temperature Oxidation Behaviors of Bulk SiC with Low Partial Pressures of Air and Water Vapor in Argon," *Corrosion Science*, 174, 108795 (8 pages), 2020.

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19. N. Yang, K. Lu, "Ultrahigh Surface Area SiOC Ceramics Based on Perhydropolysilazane and Polysiloxane," *Microporous and Mesoporous Materials*, 306(15), 110477 (9 pages), 2020.
20. Y. J. Cho, K. Lu, "Water Vapor Oxidation Behaviors of Nuclear Graphite IG-110 for a Postulated Accident Scenario in High Temperature Gas-Cooled Reactors," *Carbon*, 164(30) 251-260, 2020.
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24. K. Bawane, K. Lu, Q. Li, R. Bordia, "High Temperature Oxidation Behaviors of SiON Coated AISI 441 in Ar+O<sub>2</sub>, Ar+H<sub>2</sub>O, and Ar+CO<sub>2</sub> Atmospheres," *Corrosion Science*, 166 (15)108429 (7 pages), 2020.
25. K. Bawane, K. Lu, "Microstructure Evolution for Nanostructured Ferritic Alloy with and without Cr<sub>3</sub>C<sub>2</sub> Coated Silicon Carbide at High Temperatures," *Journal of Materials Science and Technology*, 43(15) 126-134, 2020.
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27. N. Yang, M. Gao, J. Li, K. Lu, "Nickel Crystallite-Containing Magnetoceramics from Water Assisted Pyrolysis of Polysiloxane and Nickel 2,4-Pentanedionate," *Journal of the European Ceramic Society*, 103, 145–157, 2020.
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34. Y. Bai, J. Zhao, Y. Li, Z. Lv, K. Lu, "Preparation and Photocatalytic Performance of TiO<sub>2</sub>/PbTiO<sub>3</sub> Fiber Composite Enhanced by External Force Induced Piezoelectric Field,"

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### **Conference Proceedings:**

#### **Technical papers:**

1. K. Ning, Z. Hu, K. Lu, “Fabrication of New NFA-SiC Composites for Nuclear Applications,” 2016 American Nuclear Society Winter Meeting Proceeding, ISBN: 978-0-89448-732-3.
2. K. Lu, W. Li, G. Li, “Understanding Diamond Nanoparticle Evolution During Zirconia Spark Plasma Sintering,” Proceeding of the 38th International Conference and Exposition on Advanced Ceramics & Composites (ICACC 2014), Daytona Beach, Florida, January 26-31, 2014. Editors: A. Gyekenyesi, M. Halbig.
3. W. Li, M. Anderson, K. Lu, J. Y. Walz, “Fabrication of Porous Mullite by Freeze Casting and Sintering of Alumina-Silica Nanoparticles,” Advances in Synthesis, Processing, and Applications of Nanostructures, Proceeding of Materials Science & Technology 2011 Conference and Exhibit (MS&T '11), October 16-20, 2011, Columbus, OH, Ceramic Transactions, Vol 238, John Wiley & Sons, 2012, Editors: K. Lu, N. Manjooran, R. Murakami, G. Pickrell, page 57-64.
4. K. Lu, B. Chen, “Single Nanometer TiO<sub>2</sub> Particle Synthesis and Soft Lithographic Molding,” Proceedings of 2011 NSF Engineering Research and Innovation Conference, Atlanta, Georgia, January 4-7, 2011.
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7. B. Chen, K. Lu, Z. Tian, "Effect of Focused Ion Beam Patterning on Enlarging Anodization Window and Interpore Distance for Ordered Porous Anodic Alumina," Ceramic Transactions, Proceeding of Materials Science & Technology 2010 Conference and Exhibit (MS&T '10), October 17-21, 2010, Houston, TX, John Wiley & Sons, 2011, p3-11.
8. J. Walz, K. Lu, "Properties of Freeze-Casted Composites of Silica and Kaolinite," Editors: K. Lu, C. Li, E. Medvedovski, E. A. Olevsky, Processing of Nanoparticle Materials and Nanostructured Films, Ceramic Transactions, Volume 223, 2010, ISBN 978-0-470-92731-1, Wiley-Blackwell, p79-86.
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10. K. Lu, Chase Hammond, "Nanoparticle-based Array Creation by Templating," Proceedings of 2009 NSF Engineering Research and Innovation Conference, Honolulu, Hawaii, June 22-25, 2009.
11. K. Lu, X. Zhu, "Ni-B Nanolayer Evolution on Boron Carbide Particle Surfaces at High Temperatures," Processing of Nanoparticle Structures and Composites: Ceramic Transactions, Vol. 208, 133-141, Editors: T. Hinklin, K. Lu, 2009, John Wiley & Sons.
12. K. Lu, C. Hammond, "Nanoparticle-based Bulk Material Templating," Processing of Nanoparticle Structures and Composites: Ceramic Transactions, Vol. 208, 1-10, Editors: T. Hinklin, K. Lu, 2009, John Wiley & Sons.
13. X. Zhu, K. Lu, H. Dong, C. Glomb, E. Logan, K. Nagarathnam, "Applying Nickel Nanolayer Coating onto B<sub>4</sub>C Particles for Processing Improvement," 32nd International Cocoa Beach Conference and Exposition on Advanced Ceramics and Composites, January, 2008, Daytona Beach, FL. Ceramic Engineering and Science Proceedings, 29(8), 117-129, 2008, Editors: Tatsuki Ohji, Andrew Wereszczak.
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17. K. Lu, "Carbon Nanotube and Alumina Nanoparticle Suspension and Freeze Casting Study," Proceeding of 2006 Materials Science & Technology International Conference,

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#### **Teaching papers:**

21. C. B. Burgoyne, M. Roman, C. Evia, C. Suchicital, K. Lu, J. Jinscheck, "Work-in-Progress: Development and Implementation of a Web-Based Teaching Resource Site to Prepare International Teaching and Research Faculty for the American Classroom," Proceeding of ASEE/IEEE Frontiers in Education Conference (San Diego, CA, October 28-31, 2006), pp. M4G1-M4G2.
22. K. Lu, C. S. Kessler, "Nanotechnology Readiness among a Diverse Student Population," Proceeding of Mid-Atlantic Conference on the Scholarship of Diversity, Roanoke, VA, March 17-18, 2005.

#### **Invited Talks**

1. K. Lu, Y. J. Cho, "SiC oxidation and irradiation resistance in advanced nuclear reactor TRISO fuel," Materials Science & Technology 2022, Pittsburgh, PA, October 9-13, 2022.
2. K. Lu, H. J. Choi, W. B. Wang, R. Cai, "Synthesis and Corrosion Study of Polymer-Derived Ceramic Coatings on 304 Stainless Steel," Pan American Ceramics Congress and Ferroelectrics Meeting of Americas (PACC-FMAs 2022), Panama City, Panama, July 24-28, 2022.
3. K. Lu, "Sintering behaviors of micron-sized features," Pan American Ceramics Congress and Ferroelectrics Meeting of Americas (PACC-FMAs 2022), Panama City, Panama, July 24-28, 2022.
4. K. Lu, S. Singh, "Structural Evolution and Electrical Conductivity of Polymer Derived Ceramics," TMS 2022 Annual Meeting & Exhibition, Anaheim, CA, February 27–March 3, 2022.
5. K. Lu, S. Singh, N. Yang, "Structural Evolution and Functionality of Polymer Derived SiOC Ceramics," 46th International Conference and Exposition on Advanced Ceramics and Composites (ICACC 2022), Daytona Beach, FL, January 23 - 28, 2022.
6. K. Lu, "Polymer Derived Coatings for Corrosion Protection of Steels," Materials Science & Technology 2021, Columbus, Ohio, virtual, October 17-21, 2021.
7. K. Lu, "Silicon Oxycarbide Materials," Rutgers University Departmental Seminar, virtual, April 6, 2021.

8. K. Bawane, K. Lu, X.-M. Bai, K. Ning, W.-Y. Chen, M. Li, "High Temperature Corrosion and Irradiation Behavior of Silicon Carbide and Nanostructured Ferritic Alloy Composites," TMS 2021 Annual Meeting & Exhibition, virtual, March 14-18, 2021.
9. K. Lu, J. Zheng, N. Yang, "Electrically Conductive SiOC and TiC-SiOC Nanocomposites via Flash Pyrolysis," 45th International Conference & Exposition on Advanced Ceramics & Composites (ICACC), virtual, February 8-12, 2021.
10. K. Lu, "Polymer Derived Silicon Oxycarbides - A New Generation of Novel Materials," Webinar on Materials Science, Engineering and Technology, virtual, October 17, 2020.
11. K. Lu, N. Yang, J. Zheng, "Effects of Transition Metals and External Field on the Evolution of Polymer-Derived Si-O-C ceramics," Materials Science and Engineering 2020 Conference, virtual, October 4-8, 2020.
12. N. Yang, K. Lu, "Porous SiOC Bulk Ceramic Based on Perhydropolysilazane (PHPS) and Polysiloxane (PSO) Pyrolysis," 44th International Conference and Expo on Advanced Ceramics and Composites (ICACC 2020), Daytona Beach, FL, January 26-31, 2020.
13. K. Lu, K. Bawane, N. Yang, "Polymer Derived Silicon Oxynitride (SiON) Coatings for Corrosion Protection of Steels," 44th International Conference and Exposition on Advanced Ceramics and Composites (ICACC 2020), Daytona Beach, FL, January 26-31, 2020.
14. K. Lu, N. Yang, D. Erb, "Polymer Derived Functional High Temperature Materials," 44th International Conference and Exposition on Advanced Ceramics and Composites (ICACC 2020), Daytona Beach, FL, January 26-31, 2020.
15. K. Lu, N. Yang, "Polymer Derived High Temperature Ti-SiOC," Materials Science & Technology 2019, Portland, Oregon, September 29-October 3, 2019.
16. K. Lu, "Porous Silicon Oxycarbide Without Foreign Additives," Eleventh International Conference on High-Performance Ceramics (CICC-11), Kunming, China, May 25-29, 2019.
17. K. Lu, "Phase Development of Silicon Oxycarbide Nanocomposites Under Different Conditions," Eleventh International Conference on High-Performance Ceramics (CICC-11), Kunming, China, May 25-29, 2019.
18. K. Lu, K. Bawane, K. Ning, "Nanostructured Ferritic Alloy-Silicon Carbide Composites for Nuclear Applications," 2019 TMS Annual Meeting & Exhibition, San Antonio, Texas, March 10-14, 2019.
19. K. Lu, D. Erb, L. Wang, and R. Ma, "Silicon Oxycarbide Through Flash Pyrolysis," 43rd International Conference and Exposition on Advanced Ceramics and Composites, Daytona Beach, FL, January 27-February 1, 2019.
20. K. Lu, "Sintering Behaviors of Micron- and Submicron-sized Features," Lehigh University MSE Departmental Seminar speaker, March 27, 2018.
21. K. Lu, D. Erb, "Effect of Reactive Additives on Polysiloxane Derived SiOC Porous Ceramics," 42nd International Conference and Exposition on Advanced Ceramics and Composites, January 21-26, Daytona Beach, FL, 2018.
22. K. Lu, H. Ju, "Sintering Behaviors of Micron- and Submicron-Sized ZnO Features," International Conference on Sintering 2017, San Diego, CA, November 12-16, 2017.

23. K. Lu, K. Ning, "SiC-NFA Composites for Nuclear Cladding Applications," *Frontiers in Materials Processing Applications, Research and Technology*, Bordeaux, France, July 9-12, 2017.
24. K. Lu, D. Erb, "Additive and Pyrolysis Atmosphere Effects on High Surface Area Silicon Oxycarbides," *Frontiers in Materials Processing Applications, Research and Technology*, Bordeaux, France, July 9-12, 2017.
25. K. Lu, "Solid Oxide Fuel Cell Interconnect Coatings," 12th Pacific Rim Conference on Ceramic and Glass Technology, Waikaloa, HI, May 21-26, 2017.
26. K. Lu, "Polysiloxane-Derived Porous SiOC Ceramics," 12th Pacific Rim Conference on Ceramic and Glass Technology, Waikaloa, HI, May 21-26, 2017.
27. K. Lu, K. Ning, K. Bawane, "Fabrication of Novel NFA-SiC Composites for Nuclear Applications," AFC Integration Meeting, Oak Ridge, TN, March 28-30, 2017.
28. K. Lu, "Polymer Derived Ceramics and a World of Possibilities on Research, Education, and Friendship," Humboldt Colloquium: Global Research in the 21st Century: Perspectives of the U.S. Humboldt Network, Washington D.C., March 2-4, 2017.
29. K. Lu, "Material Needs and Developments in Energy Conversion, Harvesting, and Storage," Fifth Biennial Conference of the Combined Australian Materials Societies 2016, Melbourne, Australia, December 6-8, 2016 (Keynote).
30. K. Lu, "Understanding Current State of Materials Education for a Successful Career Tomorrow," *Materials Science & Technology 2016*, Salt Lake City, UT, October 23-27, 2016.
31. K. Lu, K. Shen, "Study of Cathodes and Interconnect Coatings for Solid Oxide Fuel Cells," *Materials Day Symposium-Ceramics for Energy*, Darmstadt, Germany, April 29, 2016.
32. K. Lu, K. Shen, "Perovskite-type Cathode Materials and Coatings for Solid Oxide Fuel Cells," 2016 145<sup>th</sup> TMS Annual Meeting & Exhibition, Nashville, TN, February 14-18, 2016.
33. K. Lu, "FIB Guided Anodization Patterning, Morphology Control, and Feature Array Transfer," University of North Carolina, Charlotte, 2/17/2016-2/18/2016.
34. K. Lu, "Growing Materials Education Diversity for a Successful Career Tomorrow," *Materials Science and Engineering 2015 Conference*, Columbus, OH, October 4-8, 2015.
35. K. Lu, Z. Tang, Z. Hu, "Silicon Carbide and Oxide Dispersion Strengthened Steel Cladding Materials for Nuclear Applications," *Materials Science and Engineering 2015 Conference*, Columbus, OH, October 4-8, 2015.
36. F. Shen, K. Lu, "Properties of Electrodeposition Co and Electrophoresis  $\text{Sm}_{0.2}\text{Ce}_{0.8}\text{O}_{1.9}$  Protective Layer on AISI 441 for Solid Oxide Fuel Cells," *Materials Science and Engineering 2015 Conference*, Columbus, OH, October 4-8, 2015.
37. K. Lu, K. Shen, "Study of Different New Cathode Materials and Electrocatalyst Incorporation in Solid Oxide Fuel Cells," The 11th International Conference of Pacific Rim Ceramic Societies (PacRim-11), Jeju Island, South Korea, August 30-September 4, 2015.
38. K. Lu, F. Shen, " $(\text{La}_{0.6}\text{Sr}_{0.4})_x\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_3$  and Related Cathode Materials in Solid Oxide Fuel Cells," 2015 TMS 144<sup>th</sup> Annual Meeting & Exhibition, Walt Disney World, Orlando, FL, March 15-19, 2015.



39. K. Lu, "3D Microstructure Characterization of Nanoparticle-based Material Sintering," the International Conference on Sintering 2014, Dresden, Germany, August 24-28, 2014 (Keynote).
40. K. Lu, "Patterning, Morphology Control, and Feature Array Transfer through Focused Ion Beam Guided Anodization," University of Virginia, Charlottesville, VA, April 14, 2014.
41. K. Lu, M. Gervasio, "Formation and Characterization of Nanoparticle based Sub-micron Structures," 38th International Conference and Expo on Advanced Ceramics and Composites, Daytona Beach, FL, January 26-31, 2014.
42. K. Lu, W. Li, "Different Cathode Interactions and Performance Behaviors in Solid Oxide Fuel Cells," 10th Pacific Rim Conference on Ceramic and Glass Technology, San Diego, California, June 2-7, 2013.
43. K. Lu, "Development of a Nanoparticle-based Surface Templating Approach," 12<sup>th</sup> International Conference on Ceramic Processing Science, Portland, Oregon, August 4-7, 2013.
44. K. Lu, "Material Uses and Challenges in Solid Oxide Fuel Cells," Departmental seminar at Technische Universität Darmstadt, Darmstadt, Germany, November 2012.
45. K. Lu, B. Chen, K. Ramsburg, "ZnO Nanoparticle-based Surface Templating," 36th International Conference and Expo on Advanced Ceramics and Composites, Daytona Beach, Florida, January 22-27, 2012.
46. K. Lu, T. Jin, "Interactions of Electrolyte-(La<sub>0.8</sub>Sr<sub>0.2</sub>)<sub>x</sub>MnO<sub>3</sub> Air Electrode Interconnect Tri-layers for Solid Oxide Fuel Cells," 36th International Conference and Expo on Advanced Ceramics and Composites, Daytona Beach, Florida, January 22-27, 2012.
47. K. Lu, W. Li, J. Walz, "Understanding of Silica-Kaolinite Composite Sintering," Materials Science & Technology 2011 Conference and Exhibit (MS&T'11), Columbus, OH, October 16-20, 2011.
48. K. Lu, B. Chen, Z. Tian, "Understanding Effect of Surface Morphology during Focused Ion Beam Guided Anodization," 35th International Conference & Exposition on Advanced Ceramics & Composites, Daytona Beach, FL, January 23-28, 2011.
49. K. Lu, "Search and Study of a Solid Oxide Fuel Cell Seal Material," 2011 TMS Annual Meeting & Exhibition, San Diego, CA, February 27-March 3, 2011.
50. K. Lu, "Nanoparticle-Based Material Processing and Templating," Ohio State University, Columbus, OH, May 22, 2009.
51. K. Lu, "Energy and Nanoscale Materials," University of Maryland at Baltimore County, Baltimore, MD, May 9, 2008.
52. K. Lu, "Correlating Microscopic and Macroscopic Aspects in Solid-State Sintering," Extrude Hone Corporation, Irwin, PA, November 30, 2004.
53. K. Lu, "Particle Packing, Strength Evolution, and Densification in Solid-State Sintering," Naval Research Laboratory, Arlington, VA, October 22, 2004.
54. K. Lu, "Battery Research and Technology," Advanced Materials Laboratory at Sandia National Lab, March 15, 2004.