

Profession Preparation/Education

Jilin University, China	Chemistry	BS	91
Chinese Academy of Sciences	Polymer Science	MS	94
The University of New Mexico	Chemical Engineering	PhD	98
Sandia National Laboratories		Oct	98
Senior Processing Engineer, Applied Materials, CA		Nov	99
Assistant Professor, Tulane University		Jan	01
Brown Chair Professor, Tulane University		July	05
Professor of Chemical Engineering, UCLA		July	06
		Nov	99
		Dec	00
		Sept.	06
		Present	

Honors and Awards

1. *Presidential Early Career Awards for Scientists and Engineers (PECASE)* (2005)
2. *Early Career Scientist and Engineer Awards*, Department of Energy (DOE) (2005)
3. *Unilever Award*, American Chemical Society, Division of Colloid and Surface Chemistry (2005).
4. *Tulane University Provost Research Recognition Award* (2005)
5. *Annual Research Award*, School of Engineering, Tulane University (2004)
6. *CAREER Award*, National Science Foundation (2004)
7. *Power Generation Award*, New Orleans City Business.
8. *Forty under Forty*, Gambit Weekly, New Orleans.
9. *Young Investigator Award*, Office of Naval Research (ONR) (2003)
10. *Tulane Presidential Early Career Development Award* (2003)
11. *Changjiang Scholar Award in Tshinghua University*, Chinese Minster of Education (2003)
12. *Ralph E. Powe Junior Faculty Enhancement Awards*, Oak Ridge Associated Universities (2001)
13. *Outstanding Oversea Chinese Young Investigator Award*, Chinese National Science Foundation (2001)
14. *Victor K. LaMer Award*, American Chemical Society (2000)
15. *Outstanding Scientific Accomplishment Award*, Department of Energy (DOE) Basic Energy Science (1998)
16. *Graduate Student Award*, Material Research Society (1998)
17. *Outstanding Graduate Student Award*, School of Engineering and Chemical Engineering Department, the University of New Mexico (1999)
18. *Outstanding Graduate Student Researcher Award*, Motorola/Center for Micro-Engineering Materials (1998)
19. *Invention Recognition Award*, Semiconductor Research Corporation (1996)

Grants and Funding

1. "Development of Protein Nanocapsules for Cutaneous Diseases", Kythera Biopharmaceuticals Inc., \$750,000, 9/10 – 8/13.
2. "Novel Nanocomposites for Advance Energy Storage", H. R. Motors Inc., \$450,000, 12/10-11/13.
3. "Novel Materials for Electric Energy Storage", DOE UCLA Energy Frontage Research Center, \$750,000, 5/09-4-14.
4. "Robust Biocatalysts based on Single-Protein Nanogels", ONR, \$750,000, 10/08-9/11.
5. "Durable Electrocatalyst Supports", General Motor Inc., \$104,000. 5/2007-8/2008.
6. "Nanostructured Thermoelectrics for High Efficiency Direct Thermal Electricity Conversion", TOYOTA Inc., \$640,000. 3/2004-7/2008.

7. “Nanostructured System and Devices through Hierarchical Assembly”, DOE, \$250,000. 7/2005-6/2010.
8. “Novel Nanostructured Catalysts for Environmental Remediation of Chlorinated Compounds”, EPA, \$320,000. 6/2005-5/2008.
9. “High Efficiency Thermoelectric Nanocomposite for Second Generation Hybrid Vehicles”, Louisiana States Board of Regents, \$180,000, 6/2005-5/2008.
10. “Novel Corrosion-Resisted Electrocatalyst Supports for PEM Fuel-Cells”, Louisiana State Board of Regents, \$150,000. 6/2005-5/2008.
11. “Hydrogen Separation by Hierarchical Palladium/Inorganic Nanocomposited Membranes”, NSF, \$130,000. 6/2004-5/2005.
12. “Novel Electrocatalyst Supports for Oxygen Reduction in PEM Fuel-Cells”, General Motor Inc., \$100,000. 9/2004-8/2005.
13. “CAREER: Hierarchical Nanowire Assemblies Based on Self-Assembled Templates”, NSF, \$400,000. 6/2004-5/2009.
14. “Fabrication of High Efficiency Photovoltaics using 3-D Dimensional Nanoscale Heterojunction Networks”, ONR, \$300,000. 6/2003-5/2007.
15. “Tulane Presidential Early Career Development Award”, Tulane University, \$60,000. 6/2003-5/2006.
16. “Outstanding Oversea Chinese Young Investigator Award”, Chinese National Science Foundation, RMB (Chinese Currency) 800,000.
17. “Multifunctional Nanostructured Catalysts for Aqueous Medium Organic Synthesis”, NSF, \$420,000. 6/2002-5/2005
18. “Low Dielectric Constant Materials”, Board of Regents of the Louisiana State, \$250,000.
19. “Semiconductor Nanomeshes for Spin Applications”, DARPA, \$60,000. 6/2001-5/2005.
20. “Nanostructured Catalysts for Automobile Emission Control”, General Motor Inc., \$35,000.
21. “Self-Assembled Organometallic Complexes”, Sandia National Laboratories, \$10,000.
22. “Ralph E. Powe Junior Faculty Enhancement Awards”, Oak Ridge Associated Universities, \$10,000.
23. Co-P.I., “Acid-Neutralizing Ability of Marine Cylinder Lubricants at High Temperatures”, Board of Regents of the Louisiana State, \$150,000.
24. Co-P.I., “Acquisition of a Growth/Preparation Apparatus for Nanoscale and Materials Science at Tulane and Xavier Universities”, NSF, \$231,778.
25. Co-P.I., “Acquisition of a Field Emission Transmission Electron Microscopy at Tulane University”, NSF, \$600,000.

Book Chapters and Book Edited

1. “Water Decontamination using Iron and Iron Oxide Nanoparticles”, in *Nanotechnology Applications for Clean Water*, 348-362, William Andrew Publishing, **2009**.
2. “Paradigm of Nanotechnology, From Nanoscale Building Blocks to Macroscopic Devices”, *Nanotechnology in Biology, Biotechnology and Medicine*, Wiley-VCH Publisher, **2005**.
3. “Self-Assembled Organic/Inorganic Nanocomposites”, *Encyclopedia of Nanoscience and Nanotechnology*, American Scientific Publisher, **2004**, 9, 529-559.
4. “*Self-Assembled Nanostructured Materials*”, Materials Research Society, **2003**.

Publications

1. Zhang, Dieqing; Li, Guisheng; Li, Hexing; Lu, Yunfeng, “The Development of Better Photocatalysts through Composition- and Structure-Engineering”, *Asian Chemistry- In Press*
2. Chen, Mengjie; Huang, Chusen; He, Chunsheng; Zhu, Weiping; Xu, Yufang; Lu, Yunfeng, “A glucose-responsive controlled release system using glucose oxidase-gated mesoporous silica nanocontainers”, *Chemical Communications*, (**2012**), 48(76), 9522-9524.

3. Wang, Ling; He, Wanli; Xiao, Xia; Wang, Man; Wang, Meng; Yang, Pangyen; Zhou, Zhangjian; Yang, Huai; Yu, Haifeng; Lu, Yunfeng, “Low voltage and hysteresis-free blue phase liquid crystal dispersed by ferroelectric nanoparticles”, *Journal of Materials Chemistry* (2012), 22(37), 19629-19633.
4. Yan, Ming; Liang, Min; Wen, Jing; Liu, Yang; Lu, Yunfeng; Chen, Irvin S. Y., “Single siRNA Nanocapsules for Enhanced RNAi Delivery”, *Journal of the American Chemical Society* (2012), 134(33), 13542-13545.
5. Zhang, Dieqing; Wang, Ranran; Wen, Meicheng; Weng, Ding; Cui, Xia; Sun, Jing; Li, Hexing; Lu, Yunfeng, “Synthesis of Ultralong Copper Nanowires for High-Performance Transparent Electrodes”, *Journal of the American Chemical Society* (2012), 134(35), 14283-14286.
6. Zhang, Dieqing; Wang, Songling; Zhu, Jian; Li, Hexing; Lu, Yunfeng, “WO₃ nanocrystals with tunable percentage of (001)-facet exposure”, *Applied Catalysis, B: Environmental* (2012), 123-124, 398-404.
7. Jia, Xilai; Chen, Zheng; Suwarnasarn, Arnold; Rice, Lynn; Wang, Xiaolei; Sohn, Hiesang; Zhang, Qiang; Wu, Benjamin M.; Wei, Fei; Lu, Yunfeng, “High-performance flexible lithium-ion electrodes based on robust network architecture”, *Energy & Environmental Science* (2012), 5(5), 6845-6849.
8. Wang, Ling; He, Wanli; Xiao, Xia; Meng, Fanguo; Zhang, Yang; Yang, Pangyen; Wang, Liping; Xiao, Jiumei; Yang, Huai; Lu, Yunfeng, “Hysteresis-Free Blue Phase Liquid-Crystal-Stabilized by ZnS Nanoparticles”, *Small* (2012), 8(14), 2189-2193.
9. Sun, Xuemei; Qiu, Longbin; Cai, Zhenbo; Meng, Zhenyu; Chen, Tao; Lu, Yunfeng; Peng, Huisheng, “Hierarchically Tunable Helical Assembly of Achiral Porphyrin-Incorporated Alkoxysilane”, *Advanced Materials* (2012), 24(21), 2906-2910.
10. Weng, Ding; Qi, Hangfei; Wu, Ting-Ting; Yan, Ming; Sun, Ren; Lu, Yunfeng, “Visible light powered self-disinfecting coatings for influenza viruses”, *Nanoscale* (2012), 4(9), 2870-2874.
11. Lin, Yuhan; Zhang, Fang; Pan, Daocheng; Li, Hexing; Lu, Yunfeng, “Sunlight-driven photodegradation of organic pollutants catalyzed by TiO₂/(ZnS)_x(CuInS₂)_{1-x} nanocomposites”, *Journal of Materials Chemistry* (2012), 22(18), 8759-8763.
12. Chen, Zheng; Augustyn, Veronica; Jia, Xilai; Xiao, Qiangfeng; Dunn, Bruce; Lu, Yunfeng, “High-Performance Sodium-Ion Pseudocapacitors Based on Hierarchically Porous Nanowire Composites”, *ACS Nano* (2012), 6(5), 4319-4327.
13. Chen, Zheng; Zhang, Dieqing; Wang, Xiaolei; Jia, Xilai; Wei, Fei; Li, Hexing; Lu, Yunfeng, “High-Performance Energy-Storage Architectures from Carbon Nanotubes and Nanocrystal Building Blocks”, *Advanced Materials* (2012), 24(15), 2030-2036.
14. Chen, Zheng; Weng, Ding; Wang, Xiaolei; Cheng, Yanhua; Wang, Ge; Lu, Yunfeng, “Ready fabrication of thin-film electrodes from building nanocrystals for micro-supercapacitors”, *Chemical Communications* (2012), 48(31), 3736-3738.
15. Xiao, Qiangfeng; Cai, Mei; Balogh, Michael P.; Tessema, Misle M.; Lu, Yunfeng, “Symmetric growth of Pt ultrathin nanowires from dumbbell nuclei for use as oxygen reduction catalysts”, *Nano Research* (2012), 5(3), 145-151.
16. Jia, Xilai; Zhang, Qiang; Zhao, Meng-Qiang; Xu, Guang-Hui; Huang, Jia-Qi; Qian, Weizhong; Lu, Yunfeng; Wei, Fei, “Dramatic enhancements in toughness of polyimide nanocomposite via long-CNT-induced long-range creep”, *Journal of Materials Chemistry* (2012), 22(14), 7050-7056.
17. Chen, Zheng; Weng, Ding; Sohn, Hiesang; Cai, Mei; Lu, Yunfeng, “High-performance aqueous supercapacitors based on hierarchically porous graphitized carbon”, *RSC Advances* (2012), 2(5), 1755-1758.
18. Du, Juanjuan; Jin, Jing; Yan, Ming; Lu, Yunfeng, “Synthetic nanocarriers for intracellular protein delivery”, *Current Drug Metabolism* (2012), 13(1), 82-92.
19. Yu, Xianglin; Liang, Fuxin; Liu, Jiguang; Lu, Yunfeng; Yang, Zhenzhong, “Mesoporous hollow spheres from soap bubbling”, *Journal of Colloid and Interface Science* (2012), 367(1), 531-536.
20. Wang, Xiaolei; Ge, Li; Chen, Zheng; Augustyn, Veronica; Ma, Xueming; Wang, Ge; Dunn,

- Bruce; Lu, Yunfeng, “High-performance supercapacitors based on nanocomposites of Nb₂O₅ nanocrystals and carbon nanotubes”, *Advanced Energy Materials* (2011), 1(6), 1089-1093.
21. Shen, Ke; Liang, Fuxin; Liu, Jiguang; Qu, Xiaozhong; Zhang, Chengliang; Li, Jiaoli; Wang, Qian; Wei, Wei; Lu, Yunfeng; Yang, Zhenzhong, “Inward template synthesis of intact hollow spheres”, *Polymer* (2011), 52(20), 4418-4422.
 22. Wen, Jing; Anderson, Sean M.; Du, Juanjuan; Yan, Ming; Wang, Jun; Shen, Meiqing; Lu, Yunfeng; Segura, Tatiana, “Controlled Protein Delivery Based on Enzyme-Responsive Nanocapsules”, *Advanced Materials*, (2011), 23(39), 4549-4553.
 23. Jia, Xilai; Yan, Chunzhu; Chen, Zheng; Wang, Ranran; Zhang, Qiang; Guo, Lin; Wei, Fei; Lu, Yunfeng, “Direct growth of flexible LiMn₂O₄/CNT lithium-ion cathodes”, *Chemical Communications* (2011), 47(34), 9669-9671.
 24. Chen, Zheng; Wen, Jing; Yan, Chunzhu; Rice, Lynn; Sohn, Hiesang; Shen, Meiqing; Cai, Mei; Dunn, Bruce; Lu, Yunfeng, “High-performance supercapacitors based on hierarchically porous graphite particles”, *Advanced Energy Materials* (2011), 1(4), 551-556.
 25. Zhao, Lingling; Zhu, Lijun; Wang, Qian; Li, Jiaoli; Zhang, Chengliang; Liu, Jiguang; Qu, Xiaozhong; He, Guanglong; Lu, Yunfeng; Yang, Zhenzhong, “Synthesis of composite microgel capsules by ultrasonic spray combined with in situ crosslinking”, *Soft Matter* (2011), 7(13), 6144-6150.
 26. Zhang, Yuewei; Wen, Jing; Wang, Jun; Pan, Daocheng; Shen, Meiqing; Lu, Yunfeng “Synthesis of monodisperse CexZr1-xO₂ nanocrystals and the size-dependent enhancement of their properties”, *Nano Research* (2011), 4(5), 494-504.
 27. Zhang, Jianjun; Du, Juanjuan; Yan, Ming; Dhaliwal, Anandika; Wen, Jing; Liu, Fengqi; Segura, Tatiana; Lu, Yunfeng, “Synthesis of protein nano-conjugates for cancer therapy”, *Nano Research* (2011), 4(5), 425-433.
 28. Liu, Yang; Wang, Hao; Kamei, Ken-ichiro; Yan, Ming; Chen, Kuan-Ju; Yuan, Qinghua; Shi, Linqi; Lu, Yunfeng; Tseng, Hsian-Rong, “Delivery of Intact Transcription Factor by Using Self-Assembled Supramolecular Nanoparticles”, *Angewandte Chemie, International Edition* (2011), 50 (13), 3058-3062
 29. Zhang, Jianjun; Lei, Yuguo; Dhaliwal, Anandika; Ng, Quinn K. T.; Du, Juanjuan; Yan, Ming; Lu, Yunfeng; Segura, Tatiana, “Protein-Polymer Nanoparticles for Non-viral Gene Delivery”, *Biomacromolecules* (2011), 12(4), 1006-1014.
 30. Chen, Zheng; Augustyn, Veronica; Wen, Jing; Zhang, Yuewei; Shen, Meiqing; Dunn, Bruce; Lu, Yunfeng, High-Performance Supercapacitors Based on Intertwined CNT/V₂O₅ Nanowire Nanocomposites, *Advanced Materials* (2011), 23(6), 791-795.
 31. Peng, Yiting; Chen, Zheng; Wen, Jing; Xiao, Qiangfeng; Weng, Ding; He, Shiyu; Geng, Hongbin; Lu, Yunfeng, Hierarchical manganese oxide/carbon nanocomposites for supercapacitor electrodes, *Nano Research* (2011), 4(2), 216-225.
 32. Bian, Z.; Zhu, J. Cao, F.; Huo, Y.; Lu, Y.; Li, H. “ Solvothermal synthesis of well-defined TiO₂ mesoporous nanotubes with enhanced photocatalytic activity”, *Chemical Communications* 2010, 46 (44), 8451-8453.
 33. Xiao, Q.; Weng, D.; Yang, Z.; Garay, J.; Zhang, M.; Lu, Y*. “Efficient synthesis of PbTe nanoparticle networks”, *Nano Research*, 2010, 3(10), 685-693.
 34. Wang, X.; Pan, D.; Weng, D.; Low, C.; Rice, L.; Han, J.; Lu, Y*. “A General Synthesis of Cu-In-S Based Multicomponent Solid-Solution Nanocrystals with Tunable Band Gap, Size, and Structure” *Journal of Physical Chemistry C* 2010, 114 (41), 17293-17297.
 35. Du, J.; Yu, C.; Pan, D.; Li, J.; Chen, W.; Yan, M.; Segura, T.; Lu, Y*. “Quantum-Dot-Decorated Robust Transductable Bioluminescent Nanocapsules”, *Journal of the American Chemical Society*, 2010, 132(37), 12780-12781.
 36. Wu, Z.; Lu, Y*., “Aerosol-assisted synthesis of mesoporous titania nanoparticles with high

- surface area and controllable phase composition”, *Journal of Sol-Gel Science and Technology*, **2010**, 53(2), 287-292.
37. Sun, X.; Chen, T.; Huang, S.; Cai, F.; Chen, X.; Yang, Z.; Li, L.; Cao, H.; Lu, Y.*, Peng, H. “UV-Induced Chromatism of Polydiacetylenic Assemblies”, *Journal of Physical Chemistry B* **2010**, 114 (7), 2379-2382.
 38. Li, H.; Zhang, D.; Li, G.; Xu, Y.; Lu, Y.*; Li, H.. “Mesoporous Ni-B amorphous alloy microspheres with tunable chamber structure and enhanced hydrogenation activity”, *Chemical Communications*, **2010**, 46 (5), 791-793.
 39. Yan, M.; Du, J.; Gu, Z.; Liang, M. Hu, Y.; Zhang, W.; Priceman, S.; Wu, L.; Zhou, Z. H.; Liu, Z.; Segura, T.; Tang, Y.; Lu, Y.*. “A novel intracellular protein delivery platform based on single-protein nanocapsules”, *Nature Nanotechnology* **2010**, 5(1), 48-53.
 40. Wu, Z.; Pang, J.; Lu, Y.* “Synthesis of highly-ordered mesoporous carbon/silica nanocomposites and derivative hierarchically mesoporous carbon from a phenyl-bridged organosiloxane”, *Nanoscale* **2009**, 1(2), 245-249.
 41. Chen, Z.; Qin, Y.; Weng, D.; Xiao, Q.; Peng, Y.; Wang, X.; Li, H.; Wei, F.; Lu, Y.* “Design and Synthesis of Hierarchical Nanowire Composites for Electrochemical Energy Storage”, *Advanced Functional Materials*, **2009**, 19(21), 3420-3426.
 42. H. Peng, X. Sun, F. Cai, X. Chen, Y. Zhu, G. Liao, D. Chen, Q. Li, Y. Lu, Y. Zhu, Electrochromatic Carbon Nanotube/Polydiacetylene Nanocomposite Fibres, *Nature Nanotechnology*, **2009**, 4, 738-741.
 43. G. Zhen, M. Yan, B. Hu, K. Joo, A. Biswas, Y. Huang, Y. Lu,* P. Wang, Y. Tang, Protein Nanocapsule Weaved with Enzymatically Degradable Polymeric Network, *Nano Letters*, **2009**, 9 (12) 4533-4538.
 44. P. Yong, D. Jiang, L. Su, L. Zhang, M. Yan, J. Du, Y. Lu, Y. Liu and F. Zhou, “Mixed Monolayers of Ferrocenylalkanethiol and Encapsulated Horseradish Peroxidase for Sensitive and Durable Electrochemical Detection of Hydrogen Peroxide”, *Anal. Chem.*, **2009**, 81 (24), 9985–9992
 45. Zhang, H., Zhao, H., Wang, J., Chen, J., Lu, Y.*. and Yun, J, “Facile Preparation of Monodisperse Pharmaceutical Colloidal Spheres of Atorvastatin Calcium via Self-Assembly” *Small*, **2009**, 5 (16) 1846-1849.
 46. Zhan, J.; Sunkara, B.; L. L.; John, V. T.; He, J.; McPherson, G. L.; Piringar, G.; Lu, Y. “Multifunctional Colloidal Particles for in Situ Remediation of Chlorinated Hydrocarbons”, *Environmental Science & Technology*, **2009**, 43 (22) 8616-8621
 47. Sun, X; Chen, T.; Huang, S.; Cai, F.; Chen, X.; Yang, Z.; Lu, Y.*; Peng, H., Stimuli-Sensitive Assemblies of Homopolymers, *Langmuir*, **2009**, 25 (20), 11980-11983.
 48. Zhu, J.; Zhang, D.; Bian, Z.; Li, G.; Huo, Y.; Lu, Y.*; Li, H. “Aerosol-Spraying Synthesis of SiO₂/TiO₂ Nanocomposites and Conversion to Porous TiO₂ and Single-Crystalline TiOF₂” *Chemical Communications*, **2009**, 36, 5394-5396.
 49. Q. Zhang, M. Zhao, Y. Liu, A. Cao, W. Qian, Y. Lu*, F. Wei, “Energy-Absorbing Hybrid Composites Based on Alternate Carbon-Nanotube and Inorganic Layers, *Advanced Materials*,

2009, 21(28), 2876-2880.

50. Bian, Z.; Huo, Y.; Zhang, Y.; Zhu, J.; Lu, Y.*; Li, H., “Aerosol-Spray Assisted Assembly of $\text{Bi}_2\text{Ti}_2\text{O}_7$ Crystals in Uniform Porous Microspheres with Enhanced Photocatalytic Activity” *Applied Catalysis, B: Environmental*, **2009**, 91 (1-2), 247-253.
51. Pan, D.; Weng, D.; Wang, X.; Xiao, Q.; Chen, W.; Xu, C.; Yang, Z.; Lu, Y.*. “Alloyed Semiconductor Nanocrystals with Broad Tunable Band Gaps”, *Chemical Communications*, **2009**, 28, 4221-4223.
52. Bian, Z.; Zhu, J.; Cao, F., Lu, Y.*; Li, H. “In Situ Encapsulation of Au Nanoparticles in Mesoporous Core-Shell TiO_2 Microspheres with Enhanced Activity and Durability”, *Chemical Communications*, **2009**, (25), 3789-3791.
53. Bian, Z.; Ren, J.; Zhu, J.; Wang, S.; Lu, Y.*; Li, H. “Self-Assembly of $\text{Bi}_x\text{Ti}_{1-x}\text{O}_2$ Visible Photocatalyst with Core-Shell Structure and Enhanced activity”, *Applied Catalysis, B: Environmental*, **2009**, 89 (3-4), 577-582.
54. Zhou, L., Hong, G.; Qi, L.; Lu, Y.*, “Seeding-Growth of Helical Mesoporous Silica Nanofibers Templated by Achiral Cationic Surfactant”, *Langmuir*, **2009**, 25 (11), 6040-6044.
55. Pan, D.; Wang, X.; Zhou, Z. H.; Chen, W.; Xu, C.; Lu, Y.*, “Synthesis of Quaternary Semiconductor Nanocrystals with Tunable Band Gaps”, *Chemistry of Materials*, **2009**, 21(12), 2489-2493.
56. Kou, R.; Hu, Q.; Wang, D.; John, V. T.; Yang, Z.; Lu, Y.*. “Direct Synthesis of Ordered Mesoporous Polymer/Carbon Nanofilaments with Controlled Mesopores”, *Journal of Porous Materials*, **2009**, 16(3), 315-319.
57. Yang, Z.; Lu, Y.*; Yang, Z., “Mesoporous Materials: Tunable Structure, Morphology and Composition”, *Chemical Communications*, **2009**, 17, 2270-2277
58. H. Li, H. Yin, F. Zhang, H. Li, Y. Huo, Y. Lu*, “Water-Medium Clean Organic Reactions over an Active Mesoporous Ru(II) Organometallic Catalyst”, *Environmental Science & Technology* **2009**, 43 (1), 188-194.
59. H. Li, H. Lin, S. Xie, W. Dai, M. Qiao, Y. Lu,* H. Li, “Synthesis of Ordered Mesoporous Ni Nanowires with Enhanced Hydrogenation Activity”, *Chemistry of Materials*, **2008**, 20 (12), 3936–3943.
60. F. Zhang, G. Liu, W. He, H. Yin, X. Yang, H. Li, J. Zhu, H. Li, Y. Lu*, “Mesoporous silica with multiple catalytic functionalities”, *Advanced Functional Material*, **2008**, 18(22), 3590-3597.
61. J. Zhan, T. Zheng, G. Piringer, C. Day, G. McPherson, Y. Lu, K. Papadopoulos, V. John. “Transport Characteristics of Nanoscale Functional Zerovalent Iron/Silica Composites for in Situ Remediation of Trichloroethylene”, *Environmental Science & Technology*, **2008**, 42 (23), 8871-8876.
62. H. Peng, D. Chen, J. Huang, S. B. Chikkannavar, J. Hanisch, J. Menka, D. E. Peterson, S. K. Doorn, Y. Lu,* Y. T. Zhu, Q. X. Jia, Strong and Ductile Colossal Carbon Tubes with Walls of Rectangular Macropores, *Physical Review Letters*, **2008**, 101 (14), 145501/145504.

63. D. Pan, X. Ji, L. An, Y. Lu,* Nucleation and Growth of Nanocrystals in Heterogeneous Aqueous-Organic Synthesis Media, *Chemistry of Materials*, **2008**, 20 (11), 3560-3566.
64. H. Li, J. Liu, S. Xie, M. Qiao, W. Dai, Y. Lu,* H. Li, Vesicle-Assisted Assembly of Mesoporous Ce-Doped Pd Nanospheres with a Hollow Chamber and Enhanced Catalytic Efficiency, *Advanced Functional Materials*, **2008**, 18 (20), 3235-3241.
65. T. Zheng, J. Zhan, J. He, C. Day, Y. Lu, G. L. McPherson, G. Piringer, V. John, “Reactivity Characteristics of Nanoscale Zero-valent Iron/Silica Composites for Trichloroethylene Remediation”, *Environmental Science & Technology*, **2008**, 42 (12), 4494-4499.
66. J. Ge, D. Lu, J. Wang, M. Yan, Y. Lu, Z. Liu, Molecular Fundamentals of Enzyme Nanogels, *Journal of Physical Chemistry B*, **2008**, 112 (45), 14319-14324.
67. Yu, X., Ding, S., Meng, Z., Liu, J., Qu, X., Lu, Y. and Yang, Z., “Aerosol Assisted Synthesis of Silica/Phenolic Resin Composite Mesoporous Hollow Spheres”, *Colloid and Polymer Science*, **2008**, 286 (12), 1361-1368.
68. Ding, S., Zhang, C., Qu, X.; Liu, J., Lu, Y. and Yang, Z. “Porous carbon and carbon composite hollow spheres”, *Colloid and Polymer Science* **2008**, 286 (8-9), 1093-1096.
69. *L. Yang, H. Peng, H. Kun, J. T. Mague, H. Li* and Y. Lu**, Hierarchical Assembly of Organic/Inorganic Building Molecules with π - π Interactions, *Advanced Functional Materials*, **2008**, 18(10), 1526-1535.
70. H. Peng, Y. Zhu, D. E. Peterson, Y. Lu,* Nanolayered Carbon/Silica Superstructures via Organosilane Assembly”, *Advanced Materials*, **2008**, 20 (6), 1199-1204.
71. H. Peng, Y. Lu,* Squarely Mesoporous and Functional Nanocomposites by Self-Directed Assembly of Organosilane”, *Advanced Materials*, **2008**, 20 (4), 797-800.
72. D. Pan, L. An, Z. Sun, W. Hou, Y. Yang, Z. Yang, Y. Lu,* Synthesis of Cu-In-S Ternary Nanocrystals with Tunable Structure and Composition, *Journal of the American Chemical Society*, **2008**, 130 (17), 5620-5621.
73. Z. Yang, J. Wang, K. Huang, J. Ma, Z. Yang, Y. Lu,* “Functional Mesoporous Polymers from Phenolic Building Oligomers”, *Macromolecular Rapid Communications*, **2008**, 29 (5), 442-446.
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76. H. Li, Z. Bian, J. Zhu, D. Zhang, G. Li, Y. Huo, H. Li, Y. Lu, “Mesoporous Titania Spheres with Tunable Chamber Structure and Enhanced Photocatalytic Activity”, *Journal of the American Chemical Society*, **2007**, 129 (27), 8406-8407.

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