

Yujie Xiong

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Education

Ph.D. in Inorganic Chemistry (Advisor: Professor Yi Xie), June 2004
University of Science and Technology of China

B.S. in Chemical Physics, June 2000
Special Class for the Gifted Young, University of Science and Technology of China

Employment

Professor of Chemistry (June 2011-present)
School of Chemistry and Materials Science, University of Science & Technology of China
Hefei National Laboratory for Physical Sciences at the Microscale, China

Principal Scientist and Lab Manager (March 2009-May 2011)
National Nanotechnology Infrastructure Network (NSF-NNIN)
School of Engineering and Applied Science, Washington University in St. Louis

Research Associate (August 2007-February 2009), with Professor John A. Rogers
Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign

Postdoctoral Fellow (October 2004-July 2007), with Professor Younan Xia
Department of Chemistry, University of Washington, Seattle

Selected Honors and Awards

Outstanding Young Scholar Award, Hong Kong Qishu Science and Technology Foundation (2014)

Young Cutting-Edge Nanochemistry Researcher Award, Chinese Chemical Society and Small journal (2014)

Excellent PhD Advisor Award, Chinese Academy of Sciences (2014)

Young Faculty Career Award, USTC Alumni Foundation (2014)

Award for Young Chemists, Chinese Chemical Society (2013)

National Natural Science Award of China (Second Class) (2012)

2011 Scopus Young Researcher Award (2012)

Selected to "Recruitment Program of Global Experts" of China (2011)

Selected to "Hundred Talent Program", Chinese Academy of Sciences (2011)

National Best Doctoral Dissertation Award of China, Honorable Mention (2006)

Best Doctoral Dissertation Award, Chinese Academy of Sciences (2005)

President Excellent Award, Chinese Academy of Sciences (2004)

Qiushi Graduate Fellowship, Hong Kong Qiushi Science and Technology Foundation (2004)

Professional Services

Editorial Board Member, *Scientific Reports*, Nature Publishing Group (2014-)

Editorial Board Member, *Progress in Natural Science: Materials International*, Elsevier (2014-)

Senior Editor, *Journal of Nanoscience Letters*, Cognizure (2014-)

Editorial Board Member, *Chinese Chemical Letters*, Chinese Chemical Society (2014-)

Board Committee Member of International Academy of Electrochemical Energy Science (2014-)

Committee Member, Committee of Young Chemists, Chinese Chemical Society (2014-)

Committee Member, Development and Plan Committee, USTC (2014-)

Academic Degrees Committee Member, School of Chemistry and Materials Science, USTC (2014-)

Funding Support

PI, Recruitment Program of Global Experts, \$500,000 (2012-2014)

PI, Regular Grant, National Natural Science Foundation of China (NSFC), “Design and Synthesis of Semiconductor-Metal Hybrid Structures for CO₂ Photocatalytic Conversion”, \$140,000 (2015-2018)

PI, Key Research Plan for Nanofabrication, National Natural Science Foundation of China (NSFC), “Nanofabrication for High-Efficient, Flexible Thin-Film Monocrystalline Silicon Photovoltaics”, \$90,000 (2012-2014)

PI, Young Investigator Grant, National Natural Science Foundation of China (NSFC), “Design, Synthesis and Mechanism Studies of Nanocatalysts for the Conversion of CO₂ to Fuels”, \$40,000 (2012-2014)

PI, Young Investigator Grant for Basic Research, Hok Ying Tung Education Foundation, “Micro- and Nanostructures in the High-Efficient, Flexible Thin-Film Monocrystalline Silicon Photovoltaics”, \$19,000 (2012-2014)

PI, Specialized Research Fund for the Doctoral Program of Higher Education, Ministry of Education, “Inorganic Materials Design for Novel Flexible Solar Conversion Devices”, \$20,000 (2013-2015)

PI, USTC Grant for Key Research Projects, Fundamental Research Funds for the Central Universities, “Micro- and Nanostructure Design of Catalysts for Efficient Use of Carbon Resource”, \$160,000 (2013-2015)

PI, USTC startup package, University of Science and Technology of China, \$160,000 (2011-2012)

PI, St. Louis Institute of Nanomedicine (SLIN) Pilot Grant, Missouri Life Sciences Research Board, “Correlation of Metallic Nanoparticle Toxicity with Physiochemical Properties”, \$36,250 (2010-2011).

co-PI, National Basic Research Program of China, Ministry of Science and Technology, “Coupling and Evolution of Electronic States at the Surface and Interface of Photocatalytic Systems”, \$830,000 (2014-2019)

Publications

97 papers in journals including *Science*, *Journal of the American Chemical Society*, *Angewandte Chemie*, *Advanced Materials*, *Chemical Society Reviews* and many others with an **H-index of 47** and more than **8,000 citations** as of January 2015 according to the ISI Web of Science. 17 of the publications have been selected to the top 1% Highly Cited Papers in last 10 years by ISI Web of Knowledge.

(A) Independent research work (*corresponding author)

1. Liu, D.; Li, L.; Gao, Y.; Wang, C.; Jiang, J. and **Xiong, Y.*** “The Nature of Photocatalytic “Water Splitting” on Silicon Nanowires”, *Angew. Chem. Int. Ed.* DOI: 10.1002/anie.201411200.
✧ Selected as a Hot Paper of *Angewandte Chemie*.
2. Long, R.; Rao, Z.; Mao, K.; Li, Y.; Zhang, C.; Liu, Q.; Wang, C.; Li, Z. Y.; Wu, X. and **Xiong, Y.*** “Efficiently Coupling Solar Energy into Catalytic Hydrogenation by Well-Designed Pd Nanostructures”, *Angew. Chem. Int. Ed.* DOI: 10.1002/anie.201407785.
3. Long, R.; Wu, D.; Li, Y.; Bai, Y.; Wang, C.; Song, L. and **Xiong, Y.*** “Boosting Catalytic Efficiency in Heck Coupling Reaction by Shrinking the Size of Pd Octahedrons down to 5 nm via Kinetic Control”, *Nano Res.* DOI: 10.1007/s12274-015-0722-1.
4. Bai, S.; Wang, L.; Chen, X.; Du, J. and **Xiong, Y.*** “Chemically Exfoliated Metallic MoS₂ Nanosheets: A Promising Supporting Co-catalyst for Enhancing Photocatalytic Performance of TiO₂ Nanocrystals”, *Nano Res.* DOI: 10.1007/s12274-014-0606-9.
5. Zhao, X.; Luo, B.; Long, R.; Wang, C. and **Xiong, Y.*** “Composition-dependent activity of Cu-Pt alloy nanocubes for electrocatalytic CO₂ reduction”, *J. Mater. Chem. A* DOI: 10.1039/C4TA06608A.
6. Bai, S. and **Xiong, Y.*** “Recent Advances in Two-Dimensional Nanostructures for Catalysis Applications”, *Sci. Adv. Mater.* DOI:10.1166/sam.2015.2261. (*invited Review Article*)
7. Bai, Y.; Zhang, W.; Zhang, Z.; Zhou, J.; Wang, X.; Wang, C.; Huang, W.*; Jiang, J.* and **Xiong, Y.*** “Controllably Interfacing with Metal: A Strategy for Enhancing CO Oxidation on Oxide Catalysts by Surface Polarization”, *J. Am. Chem. Soc.* 136, 14650-14653 (2014).
8. Bai, S.; Wang, C.; Deng, M.; Gong, M.; Bai, Y.; Jiang, J. and **Xiong, Y.*** “Surface Polarization Matters: Enhancing Hydrogen Evolution Reaction by Shrinking Pt Shells in Pt-Pd-Graphene Stack Structures”, *Angew. Chem. Int. Ed.* 53, 12120-12124 (2014).
✧ Featured on the back cover of *Angewandte Chemie*.
9. Wang, L.; Ge, J.; Wang, A.; Deng, M.; Wang, S.; Bai, S.; Li, R.; Jiang, J.*; Zhang, Q.*; Luo, Y. and **Xiong, Y.*** “Designing p-Type Semiconductor-Metal Hybrid Structures for Improved Photocatalysis”, *Angew. Chem. Int. Ed.* 53, 5107-5111 (2014).
10. Long, R.; Mao, K.; Gong, M.; Zhou, S.; Hu, J.; Zhi, M.; You, Y.; Bai, S.; Jiang, J.; Zhang, Q.*; Wu, X.* and **Xiong, Y.***, “Tunable Oxygen Activation for Catalytic Organic Oxidation: Schottky Junction versus Plasmonic Effect”, *Angew. Chem. Int. Ed.* 53, 3205-3209 (2014).
11. Long, R.; Zhou, S.; Wiley, B. J.* and **Xiong, Y.*** “Oxidative Etching for Controlled Synthesis of Metal Nanocrystals: Atomic Addition and Subtraction”, *Chem. Soc. Rev.* 43, 6288-6310 (2014).

- ◇ Featured on the inside front cover of *Chemical Society Reviews*.
12. Bai, S.; Ge, J.; Wang, L.; Gong, M.; Deng, M.; Kong, Q.; Song, L.; Jiang, J.;* Zhang, Q.;* Luo, Y.; Xie, Y. and **Xiong, Y.*** “A Unique Semiconductor-Metal-Graphene Stack Design to Harness Charge Flow for Photocatalysis”, *Adv. Mater.* 26, 5689-5695 (2014).
- ◇ Featured on the inside front cover of *Advanced Materials*.
13. Li, R.; Hu, J.; Deng, M.; Wang, H.; Wang, X.; Hu, Y.; Jiang, H. L.; Jiang, J.;* Zhang, Q.;* Xie, Y. and **Xiong, Y.*** “Integration of Inorganic Semiconductor with MOF: A Platform for Enhanced Gaseous Photocatalytic Reactions”, *Adv. Mater.* 26, 4783-4788 (2014).
- ◇ Featured on the inside back cover of *Advanced Materials*.
14. Bai, S.; Wang, X.; Hu, C.; Xie, M.; Jiang, J.* and **Xiong, Y.*** “Two-Dimensional g-C₃N₄: An Ideal Platform for Examining Facet Selectivity of Metal Co-Catalysts in Photocatalysis”, *Chem. Commun.* 50, 6094-6097 (2014).
- ◇ Featured on the inside front cover of *Chemical Communications*.
15. Piao, J. G.; Wang, L.; Gao, F.; You, Y. Z.*; **Xiong, Y.*** and Yang, L.* “Erythrocyte Membrane Is an Alternative Coating to Polyethylene Glycol for Prolonging the Circulation Lifetime of Gold Nanocages for Photothermal Therapy”, *ACS Nano* 8, 10414-10425 (2014).
16. Long, R.; Mao, K.; Ye, X.; Yan, W.; Huang, Y.; Wang, J.; Fu, Y.; Wang, X.; Wu, X.; Xie, Y. and **Xiong, Y.***, “Surface Facet of Palladium Nanocrystals: a Key Parameter to the Activation of Molecular Oxygen for Organic Catalysis and Cancer Treatment”, *J. Am. Chem. Soc.* 135, 3200-3207 (2013).
- ◇ Highlighted in *Chemical & Engineering News (C&EN)*, 25 February 2013.
17. Wang, C.; Ma, L.; Liao, L.; Bai, S.; Long, R.; Zuo, M. and **Xiong, Y.***, “A Unique Platinum-Graphene Hybrid Structure for High Activity and Durability in Oxygen Reduction Reaction”, *Sci. Rep.* 3, 2580 (2013).
18. Bai, Y.; Long, R.; Wang, C.; Gong, M.; Li, Y.; Huang, H.; Xu, H.; Li, Z.; Deng, M. and **Xiong, Y.***, “Activation of Specific Sites on Cubic Nanocrystals: A New Pathway for Controlled Epitaxial Growth towards Catalytic Applications”, *J. Mater. Chem. A* 1, 4228-4235 (2013).
- ◇ Featured on the back cover of *J. Mater. Chem. A*.
19. **Xiong, Y.***; Brunson, M.; Huh, J.; Huang, A.; Coster, A.; Wendt, K.; Fay, J. and Qin, D.*, “The Role of Surface Chemistry on the Toxicity of Ag Nanoparticles”, *Small* 15, 2628-2638 (2013).
- ◇ Selected as "Hot Topics: Surfaces and Interfaces" by Wiley-VCH.
20. Li, Z.*; Li, C.; Mei, Y.; Wang, L.; Du, G. and **Xiong, Y.***, “Synthesis of Rhombic Hierarchical YF₃ Nanocrystals and Their Use as Upconversion Photocatalysts after TiO₂ Coating”, *Nanoscale* 5, 3030-3036 (2013).
21. Bao, L.; Li, Z.*; Tao, Q.; Xie, J.; Mei, Y. and **Xiong, Y.***, “Controlled Synthesis of Uniform LaF₃ Polyhedrons, Nanorods and Nanoplates Using NaOH and Ligands”, *Nanotechnology* 24, 145604 (2013).
22. Ma, L.; Wang, C.; Gong, M.; Liao, L.; Long, R.; Wang, J.; Wu, D.; Zhong, W.; Kim, M.*; Chen, Y.; Xie, Y. and **Xiong, Y.***, “Control Over the Branched Structures of Platinum Nanocrystals for Electrocatalytic Applications”, *ACS Nano* 6, 9797-9806 (2012).
23. **Xiong, Y.***; Long, R.; Liu, D.; Zhong, X.; Wang, C.; Li, Z.-Y. and Xie, Y., "Solar Energy Conversion with Tunable Plasmonic Nanostructures for Thermoelectric Devices", *Nanoscale* 4, 4416-4420 (2012).
- ◇ Featured on the inside front cover of *Nanoscale*.
24. Li, B.; Long, L.; Zhong, X.; Bai, Y.; Zhu, Z.; Zhang, X.; Zhi, M.; He, J.; Wang, C.; Li, Z.-Y. and **Xiong, Y.***, "Investigation of Size-Dependent Plasmonic and Catalytic Properties of Metallic Nanocrystals Enabled by Size Control with HCl Oxidative Etching", *Small* 8, 1710-1716 (2012).

25. Wang, C.; Wang, L.; Long, L.; Ma, L.; Wang, L.; Li, Z.* and **Xiong, Y.***, "Anisotropic Growth of Palladium Twinned Nanostructures Controlled by Kinetics and Their Unusual Activities in Galvanic Replacement", *J. Mater. Chem.* 22, 8195-8198 (2012).
26. Long, R.; Qu, B.; Tan, R.; Sun, Y.; Tan, X.; Ying, W.; Pan, B.; **Xiong, Y.*** and Xie, Y.*, "Identifying Structural Distortion in Doping VO₂ with IR Spectroscopy", *Phys. Chem. Chem. Phys.* 14, 7225-7228 (2012).
27. Zeng, Y.; Li, Z.*; Wang, L. and **Xiong, Y.***, "Controlled Synthesis of Gd₂(WO₄)₃ Microstructures and Their Tunable Photoluminescent Properties after Eu³⁺/Tb³⁺ Doping", *Cryst. Eng. Comm.* 14, 7043-7048 (2012).
28. Li, Z.*; Zeng, Y.; Qian, H.; Long, R. and **Xiong, Y.***, "Facile Synthesis of GdBO₃ Spindle Assemblies and Microdisks as Versatile Host Matrixes for Lanthanides Doped", *Cryst. Eng. Comm.* 14, 3959-3964 (2012).
29. **Xiong, Y.***, "Morphological Changes in Ag Nanocrystals Triggered by Citrate Photoreduction and Governed by Oxidative Etching", *Chem. Commun.* 47, 1580-1582 (2011).
30. Li, Z.*; Wang, L.; Wang, Z.; Liu, X. and **Xiong, Y.***, "Modification of NaYF₄:Yb,Er@SiO₂ Core-shell Nanoparticles with Gold Nanocrystals for Tunable Green-to-red Upconversion Emissions", *J. Phys. Chem. C* 115, 3291-3296 (2011).
31. Huang, J.; Yang, L.; Liu, D.; Chen, J.; Fu, Q.; **Xiong, Y.**; Lin, F. and Xiang, B.* "Large-area Synthesis of Monolayer WSe₂ on SiO₂/Si Substrate and its Device Applications", *Nanoscale* in press.
32. Bao, L.; You, H.; Wang, L.; Li, L.; Qiao, R.; Zhang, Y.; Zhong, Y.; **Xiong, Y.** and Li, Z.* "Self-assembly of LaF₃:Yb,Er/Tm Nanoplates into Colloidal Spheres and Tailoring Their Upconversion Emissions with Fluorescent Dyes", *J. Mater. Chem. C* 2, 8949-8955 (2014).
33. Chen, W.; Chen, H.; Zhu, H.; Gao, Q.; Luo, J.; Wang, Y.; Zhang, S.; Zhang, K.; Wang, C.; **Xiong, Y.**; Wu, Y.; Zheng, X.; Chu, W.; Song, L.* and Wu, Z.* "Solvochemical Synthesis of Ternary Cu₂MoS₄ Nanosheets: Structural Characterization at the Atomic Level", *Small* 10, 4637-4644 (2014).

(B) Postdoctoral research work

34. Zhang, H.; Jin, M.; **Xiong, Y.**; Lim, B. and Xia, Y., "Shape-Controlled Synthesis of Pd Nanocrystals and Their Catalytic Applications", *Acc. Chem. Res.* 46, 1783-1794 (2013). (*invited Review Article*)
35. Park, S.-I.;[†] **Xiong, Y.**;[†] Kim, R.-H.;[†] Elvikis, P.; Meitl, M.; Kim, D.-H.; Wu, J.; Yoon, J.; Yu, C.-J.; Liu, Z.; Huang, Y.; Hwang, K.-C.; Ferreira, P.; Li, X.; Choquette K. and Rogers, J.A., "Printed Assemblies of Inorganic Light-Emitting Diodes for Deformable and Semitransparent Displays", *Science* 325, 977-981 (2009). [†] **Denotes equal contribution**
 - ❖ Highlighted in *Science NOW*, 20 August 2009.
 - ❖ Highlighted in *Chemical & Engineering News (C&EN)*, 24 August 2009.
 - ❖ Reported or adapted by *The New York Times*, *ABC*, *BBC News*, *NBC*, *Reuters*, *US News and World Report*, *Discovery Channel*, *Discover Magazine*, *MIT Technology Review*, *Science Daily*, *Scientific American*, *Yahoo*, *CNet*, *Daily Tech*, *IT PRO*, *Nanowerk*, *newKerala*, *NewsFactor*, *NewsGuide.us*, *PhysOrg*, *R&D Magazine*, *ECNmag.com*, *Chemie.de*, *Daily India*, *Innovations Report*, *IT Web*, *Malaysia Sun*, *PC Magazine*, *Science Centric*, *The Engineer*, *Zimbabwe Star*, *Buenos Aires Herald*, *Herald de Paris*, *Infoworld*, *The Boston Globe*, *The Times of India*, *WNDU TV*, *Mother Nature Network*, *HDTV News*, *Rapid Electronics*, *IEEE Spectrum*, *Physics World*, *Live Science*, *Tech World*, *Sci-Tech*

Today, *Photonics.com*, *PC World*, *Newsfactor.com*, *Nature*, *Optics and Photonics Focus*, *Inside Illinois*.

36. Ahn, B. Y.; Duoss, E. B.; Motala, M. J.; Guo, X.; Park, S. I.; **Xiong, Y.**; Yoon, J.; Nuzzo, R. G.; Rogers, J. A. and Lewis, J. A., "Omnidirectional Printing of Flexible, Spanning, and Stretchable Silver Microelectrodes", *Science* 323, 1590-1593 (2009).
 - ❖ Highlighted in *Science Perspectives*, 20 March 2009.
 - ❖ Highlighted in *Nature Materials*, April 2009.
 - ❖ Reported by *Science Daily*, *MIT Technology Review*, *Market Watch*, *Product Design & Development*, *Science Centric*, *AZO materials*, *e! Science News*, *Nanotechnology Now*, *PhysOrg*, *The Post Chronicle*, *redOrbit*, *The Money Times*, *UPI.com*, *insciences.org*, *Times of the Internet*.
37. Xia, Y.; **Xiong, Y.**; Lim, B. and Skrabalak, S. E., "Shape-Controlled Synthesis of Metal Nanocrystals: Simple Chemistry Meets Complex Physics?", *Angew. Chem. Int. Ed.* 48, 60-103 (2009). (*invited Review Article*)
 - ❖ Featured on the front cover of *Angewandte Chemie*.
 - ❖ Selected as the Most-Cited Paper by Thomson Reuters Essential Science Indicators, and featured as a Fast Moving Front Paper on Science Watch.
 - ❖ Selected as a 12/2008 Most-Accessed Article of *Angewandte Chemie*.
38. **Xiong, Y.**; Cai, H.; Wiley, B. J.; Wang, J.; Kim, M. and Xia, Y., "Synthesis and Mechanistic Study of Palladium Nanobars and Nanorods", *J. Am. Chem. Soc.* 127, 3665-3675 (2007).
 - ❖ Selected as one of the Most-Cited Articles published in *JACS* in 2007.
39. **Xiong, Y.**; Washio, I.; Chen, J.; Sadilek, M. and Xia, Y., "Trimeric Clusters of Silver in AgNO₃ Aqueous Solutions and Their Role as Nuclei in Forming Triangular Nanoplates of Silver", *Angew. Chem. Int. Ed.* 46, 4917-4921 (2007).
40. **Xiong, Y.**; McLellan, J. M.; Yin, Y. and Xia, Y., "Synthesis of Palladium Icosahedra with a Twinned Structure by Blocking Oxidative Etching with Citric Acid or Citrate Ion", *Angew. Chem. Int. Ed.* 46, 790-794 (2007).
 - ❖ Featured on the inside cover of *Angewandte Chemie*, and selected as a VIP paper.
41. **Xiong, Y.**; Wiley, B. J. and Xia, Y., "Nanocrystals with Unconventional Shapes -- A Class of Promising Catalysts", *Angew. Chem. Int. Ed.* 46, 7157-7159 (2007). (*invited Highlight Article*)
42. **Xiong, Y.** and Xia, Y., "Shape-Controlled Synthesis of Metal Nanostructures: The Case of Palladium", *Adv. Mater.* 19, 3385-3391 (2007). (*mini review article as a Research News*)
 - ❖ Selected as a 10/2007 Most-Accessed Article of *Advanced Materials*.
43. **Xiong, Y.**;[†] Siekkinen, A. R.;[†] Wang, J.; Yin, Y.; Kim, M. J. and Xia, Y., "Synthesis of Silver Nanoplates at High Yields by Slowing Down the Polyol Reduction of Silver Nitrate with Polyacrylamide", *J. Mater. Chem.* 17, 2600-2602 (2007) [†] Denotes equal contribution
 - ❖ Featured on the front cover of *Journal of Materials Chemistry*.
44. **Xiong, Y.**; Cai, H.; Yin, Y. and Xia, Y., "Synthesis and Characterization of Fivefold Twinned Nanorods and Right Bipyramids of Palladium", *Chem. Phys. Lett.* 440, 273-278 (2007).
45. **Xiong, Y.**; Washio, I.; Chen, J.; Cai, H.; Li, Z.-Y. and Xia, Y., "Poly(vinyl pyrrolidone): A Dual Functional Reductant and Stabilizer for the Facile Synthesis of Metal Nanoplates in Aqueous Solutions", *Langmuir* 22, 8563-8570 (2006).
 - ❖ Selected as a July-September 2006 Most-Accessed Article of *Langmuir*.
46. **Xiong, Y.**; McLellan, J. M.; Chen, J.; Yin, Y.; Li, Z.-Y. and Xia, Y., "Kinetically Controlled Synthesis of Triangular and Hexagonal Nanoplates of Pd and Their SPR/SERS Properties", *J. Am. Chem. Soc.* 127, 17118-17127 (2005).

47. **Xiong, Y.**; Chen, J.; Wiley, B.; Xia, Y.; Aloni, S. and Yin, Y., “Understanding the Role of Oxidative Etching in the Polyol Synthesis of Pd Nanoparticles with Uniform Shape and Size”, *J. Am. Chem. Soc.* 127, 7332-7333 (2005).
48. **Xiong, Y.**; Wiley, B.; Chen, J.; Li, Z.-Y.; Yin, Y. and Xia, Y., “Corrosion-Based Synthesis of Single-Crystal Pd Nanoboxes and Nanocages and Their Surface Plasmon Properties”, *Angew. Chem. Int. Ed.* 44, 7913-7917 (2005).
 - ❖ Selected as a Hot Paper of *Angewandte Chemie*.
49. **Xiong, Y.**; Chen, J.; Wiley, B.; Xia, Y.; Yin, Y. and Li, Z.-Y., “Size-Dependence of Surface Plasmon Resonance and Oxidation for Pd Nanocubes Synthesized via a Seed Etching Process”, *Nano Lett.* 5, 1237-1242 (2005).
50. **Xiong, Y.**; Mayers, B. T. and Xia, Y., “Some Recent Developments in the Chemical Synthesis of Inorganic Nanotubes”, *Chem. Commun.* 5013-5022 (2005). (*invited Feature Article*)
51. Briseno, A. L.; Mannsfeld, S. C. B.; Formo, E.; **Xiong, Y.**; Lu, X.; Bao, Z.; Jenekhe, S. A. and Xia, Y., “Adding new functions to organic semiconductor nanowires by assembling metal nanoparticles onto their surfaces”, *J. Mater. Chem.* 18, 5395-5398 (2008).
52. Guo, Q.; Zhao, Y.; Mao, W. L.; Wang, Z.; **Xiong, Y.** and Xia, Y., “Cubic to Tetragonal Phase Transformation in Cold-Compressed Pd Nanocubes”, *Nano Lett.* 8, 972-975 (2008).
53. Camargo, P. H. C.; **Xiong, Y.**; Ji, L.; Zuo, J. M. and Xia, Y., “Facile Synthesis of Tadpole-Like Nanostructures Consisting of Au Heads and Pd Tails”, *J. Am. Chem. Soc.* 127, 15452-15453 (2007).
54. Lim, B.; **Xiong, Y.** and Xia, Y., “Water-Based Synthesis of Pd Nanocrystals with an Octahedral, Decahedral, or Icosahedral Shape”, *Angew. Chem. Int. Ed.* 46, 9279-9282 (2007).
 - ❖ Highlighted in *Nature Nanotechnology* in November 2007.
<http://www.nature.com/nnano/reshigh/2007/1107/full/nnano.2007.408.html>
55. Briseno, A. L.; Mannsfeld, S. C. B.; Reese, C.; Hancock, J. M.; **Xiong, Y.**; Jenekhe, S. A.; Bao, Z. and Xia, Y., “Perylenediimide Nanowires and Their Use in Fabricating Field-Effect Transistors and Complementary Inverters”, *Nano Lett.* 7, 2847-2853 (2007).
 - ❖ Highlighted in *EE Times* in October 2007.
56. Wiley, B. J.; Chen, Y.; McLellan, J.; **Xiong, Y.**; Li, Z.-Y.; Ginger, D. S. and Xia, Y., “Synthesis and Optical Properties of Silver Nanobars”, *Nano Lett.* 7, 1032-1036 (2007).
 - ❖ Featured on the ACS website as a 2007 Most-Access Article of *Nano Letters*.
 - ❖ Highlighted in *Photonics Spectra*, 2007, May, p. 84.
57. Briseno, A. L.; Mannsfeld, S. C. B.; Lu, X.; **Xiong, Y.**; Jenekhe, S. A.; Bao, Z. and Xia, Y., “Fabrication of Field-Effect Transistors from Hexathiapentacene Single-Crystal Nanowires”, *Nano Lett.* 7, 668-675 (2007).
 - ❖ Highlighted in *Nano Today* 2, 9 (2007).
58. Chen, J.; McLellan, J. M.; Siekkinen, A.; **Xiong, Y.**; Li, Z.-Y. and Xia, Y., “Facile Synthesis of Gold-Silver Nanocages with Controllable Pores on the Surface”, *J. Am. Chem. Soc.* 128, 14776-14777 (2006).
 - ❖ Selected as an October-December 2006 Most-Accessed Article of *JACS*.
59. Chen, J.; **Xiong, Y.**; Yin, Y. and Xia, Y., “Surfactant-Directed Assembly of Pt Nanoparticles into Colloidal Spheres and Their Use as Substrates in Forming Pt Nanorods and Nanowires”, *Small* 2, 1340-1343 (2006).
 - ❖ Selected as a 5/2006-4/2007 Most-Accessed Article of *Small*.
60. Washio, I.; **Xiong, Y.**; Yin, Y. and Xia, Y., “Reduction by the End Groups of Poly(vinyl pyrrolidone): A New and Versatile Route to the Kinetically Controlled Synthesis of Ag Triangular Nanoplates”, *Adv. Mater.* 18, 1745-1749 (2006).

61. Wiley, B. J.; **Xiong, Y.**; Li, Z.-Y.; Yin, Y. and Xia, Y., “Right Bipyramids of Silver: A New Shape Derived from Single Twinned Seeds”, *Nano Lett.* 6, 765-768 (2006).
62. McLellan, J. M.; **Xiong, Y.**; Hu, M. and Xia, Y., “Surface-Enhanced Raman Scattering of 4-Mercaptopyridine on Thin Films of Nanoscale Pd Cubes, Boxes, and Cages”, *Chem. Phys. Lett.* 417, 230-234 (2006).
63. Chen, J.; Wiley, B.; McLellan, J. M.; **Xiong, Y.**; Li, Z.-Y. and Xia, Y., “Optical Properties of Pd-Ag and Pt-Ag Nanoboxes Synthesized via Galvanic Replacement Reactions”, *Nano Lett.* 5, 2058-2062 (2005).
❖ Selected as an October-December 2005 Most-Access Article of *Nano Letters*.

(C) PhD research work

64. **Xiong, Y.**; Li, Z.; Quo, Q. and Xie, Y., “Synthesis of Smooth and Bamboo-like Well-Crystalline CN_x Nanotubes with Controllable Nitrogen Concentration ($x = 0.05-1.02$)”, *Inorg. Chem.* 44, 6506-6508 (2005).
65. **Xiong, Y.**; Xie, Y.; Li, Z.; Li, X. and Gao, S., “Aqueous-Solution Growth of GaP and InP Nanowires: A General Route to Phosphide, Oxide, Sulfide and Tungstate Nanowires”, *Chem. Eur. J.* 10, 654-660 (2004).
66. **Xiong, Y.**; Li, Z.; Li, X.; Hu, B. and Xie, Y., “Thermally Stable Hematite Hollow Nanowires”, *Inorg. Chem.* 43, 6540-6542 (2004).
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