

CURRICULUM VITAE — JIAXING HUANG

PROFESSIONAL PREPARATION

- Miller Research Fellow (2004-2007), University of California, Berkeley (Sponsor: Prof. Peidong Yang)
Research topic: Patterning Nanostructures by Dewetting
- PhD in Chemistry (2000-2004), University of California, Los Angeles (Advisor: Prof. Richard Kaner)
Thesis: Syntheses and Applications of Conducting Polymer Nanofibers
- BS in Chemistry (1995-2000), University of Science and Technology of China (Advisor: Prof. Yi Xie)
Thesis: Templated Synthesis of Hollow Chalcogenide Particles with Precursor Emulsions

APPOINTMENTS

2013-present Associate Professor of Materials Science and Engineering, Northwestern University
2011-2013 Morris E. Fine Junior Professor in Materials and Manufacturing
2007-2013 Assistant Professor of Materials Science and Engineering, Northwestern University

SELECTED HONORS AND AWARDS

- Highly Cited Researcher in Chemistry (Thomson Reuters, 2014)
- Guggenheim Fellow (John Simon Guggenheim Memorial Foundation, 2014)
- Outstanding Young Manufacturing Engineering Award (Society of Manufacturing Engineers, 2013)
- Sloan Research Fellow (The Alfred P. Sloan Foundation, 2011)
- NSF CAREER Award (National Science Foundation, 2010-2015)
- National Starch and Chemical Award for Outstanding Graduate Research in Polymer Science and Engineering (American Chemical Society, 2006)
- IUPAC Young Chemists Prize (The International Union of Pure and Applied Chemistry, 2005)

PROFESSIONAL SERVICES

- Co-founder and lead organizer of ENFL symposium “Graphene for Energy and Fuels” in the 244th, 246th and 248th ACS Meetings
- Editorial/Advisory board member, *Journal of Materials Chemistry - A* (Royal Society of Chemistry, 2014-); *Carbon* (American Carbon Society, Elsevier, 2014-); Guest editor of “Chemistry of 2D Materials” Special Issue for *Journal of Solid State Chemistry* (Elsevier, 2014)
- External reviewer for President’s Science Award, Singapore
- Chair of proposal review panel, European Science Foundation
- Referee services for journals including: *Acc. Chem. Res.*, *ACS Nano*, *Adv. Mater.*, *Angew. Chem. Int. Ed.*, *Chem. Comm.*, *Chem. Rev.*, *Chem. Sci.*, *J. Am. Chem. Soc.*, *Nano Lett.*, *Nature*, *Nature Chem.*, *Nature Comm.*, *Nature Mater.*, *Nature Nanotech.*, *Nature Photon.*, *PNAS*, and many others

SELECTED PUBLICATIONS OF JIAXING HUANG GROUP AT NORTHWESTERN (FROM >60)

Google scholar profile: <http://scholar.google.com/citations?user=sbflJqUAAAJ&hl=en>

1. C.W. Lin, Z. Zhao, J. Kim and J. Huang “Pencil Drawn Strain Gauges and Chemiresistors on Paper” *Sci. Rep.*, **2014**, 4, 3812 (Highlighted in *Materials360*, *MaterialsViews*, and *Fox News’s Tech Take Live*)
2. J. Luo, J. Kim and J. Huang “Material Processing of Chemically Modified Graphene: Some Challenges and Solutions” *Acc. Chem. Res.*, **2013**, 46, 2225 (cover article)
3. J. Kim, L. J. Cote and J. Huang “Two Dimensional Soft Material: New Faces of Graphene Oxide” *Acc. Chem. Res.*, **2012**, 45, 1356
4. S.S. Chou, M. De, J. Kim, C. Dykstra, J. Huang and V.P. Dravid “Ligand conjugation of chemically exfoliated MoS₂” *J. Am. Chem. Soc.*, **2013**, 134, 16725
5. J. Kim, S. Byun, A.J. Smith, J. Yu and J. Huang “Enhanced Electrocatalytic Properties of Transition Metal Dichalcogenides Sheets by Spontaneous Gold Nanoparticle Decoration” *J. Phys. Chem. Lett.*, **2013**, 4, 1227 (Highlighted in *Chemistry World*)
6. J. Luo, H. D. Jang and J. Huang “Effect of Sheet Morphology on the Scalability of Graphene-Based Ultracapacitors” *ACS Nano*, **2013**, 7, 1464 (Highlighted in *C&E News*)
7. K. Raidongia and J. Huang “Nanofluidic Ion Transport through Reconstructed Layered Materials” *J. Am. Chem. Soc.*, **2012**, 134, 16528 (Highlighted in *Materials Today*, *IEEE Spectrum*)

8. S.S. Chou, M. De, J. Luo, V.M. Rotello, J. Huang, V.P. Dravid "Nanoscale Graphene Oxide as Artificial Receptors: Implications for Biomolecular Interactions and Sensing" *J. Am. Chem. Soc.*, **2012**, 134, 16725
9. J.Y. Zheng, Y. Yan, X. Wang, Y.S. Zhao, J. Huang and J. Yao "Wire-on-wire Growth of Fluorescent Organic Heterojunctions" *J. Am. Chem. Soc.*, **2012**, 134, 2880 ([Highlighted in Chemistry World](#))
10. J. Luo, H. D. Jang, T. Sun, L. Xiao, Z. He, A. P. Katsoulidis, M. G. Kanatzidis, J. M. Gibson and J. Huang "Compression and Aggregation-resistant Particles of Crumpled Soft Sheets" *ACS Nano*, **2011**, 5, 8943 ([Highlighted in Chemistry Industry, Nature, C&E News, ACS Nano – In Nano, and Materials Today](#))
11. V. C. Tung, J. H. Huang, J. Kim, A. J. Smith, C. Chu, and J. Huang "Towards Solution Processed All-Carbon Solar Cells: A Perspective" *Energy Environ. Sci.*, **2012**, 5, 7810 ([invited, inside cover](#))
12. T.H. Han, Y.K. Huang, A.T.L. Tan, V.P. Dravid and J. Huang "Steam Etched Porous Graphene Oxide Network for Chemical Sensing" *J. Am. Chem. Soc.*, **2011**, 133, 15264
13. V.C. Tung, J. Kim, L.J. Cote and J. Huang "Sticky Interconnect for Solution-Processed Tandem Solar Cells" *J. Am. Chem. Soc.*, **2011**, 133, 9262 ([Highlighted in Nanowerk.com –Spotlight](#))
14. V.C. Tung, J.-H. Huang, I. Tevis, F. Kim, J. Kim, C.W. Chu, S.I. Stupp and J. Huang "Surfactant-free Water-processable Photoconductive All-carbon Composite" *J. Am. Chem. Soc.*, **2011**, 133, 4940 ([Highlighted in C&E News, Renewables International, and Fast Company](#))
15. K.C. Pradel, K.N. Sohn and J. Huang "Cross-flow Purification of Nanowires" *Angew. Chem. Int. Ed.*, **2011**, 50, 3412 (["hot paper", frontispiece article](#)) ([Highlighted in ChemViews Magazine](#))
16. L.J. Cote, J. Kim, V.C. Tung, J. Luo, F. Kim and J. Huang "Graphene Oxide as Surfactant Sheets" *Pure Appl. Chem.*, **2011**, 83, 96 ([Invited Review in IUPAC special issue commemorating IYC 2011, cover article](#)) Chinese version translated by the Industrial Technology Research Institute (ITRI), Taiwan and republished in *Industrial Materials* (工業材料雜誌), **2011**, 291, 123
17. A. Kolmakov, D. A. Dikin, L. J. Cote, J. Huang, M. K. Abyaneh, M. Amati, L. Gregoratti, S. Günther and M. Kiskinova "Graphene Oxide Windows for In-situ Environmental Cell Photoelectron Spectroscopy" *Nature Nanotech.*, **2011**, 6, 651 ([Featured in Nature Nanotechnology – News and Views](#))
18. J. Kim, L. J. Cote, F. Kim, W. Yuan, K. R. Shull and J. Huang "Graphene Oxide Sheets at Interfaces" *J. Am. Chem. Soc.*, **2010**, 132, 8180 ([Highlighted in Nature Chemistry, and Ars Technica](#))
19. J. Kim, L. J. Cote, F. Kim and J. Huang "Visualizing Graphene Based Sheets by Fluorescence Quenching Microscopy" *J. Am. Chem. Soc.*, **2010**, 132, 260 ([Highlighted in Nature Chemistry, C&E News](#))
20. L. J. Cote, F. Kim and J. Huang "Langmuir-Blodgett Assembly of Graphite Oxide Single Layers" *J. Am. Chem. Soc.*, **2009**, 131, 1043 ([cover article](#)) ([Highlighted in C&E News](#))
21. K. Sohn, F. Kim, K.C. Pradel, J. Wu, Y. Peng, F. Zhou and J. Huang "Construction of Evolutionary Tree for Morphological Engineering of Nanoparticles" *ACS Nano*, **2009**, 3, 2191 ([Highlighted in Nature Nanotechnology](#))
22. F. Kim, J. Luo, R. Cruz-Silva, L. J. Cote, K. Sohn and J. Huang "Self-Propagating Domino-Like Reactions in Oxidized Graphite" *Adv. Funct. Mater.*, **2010**, 20, 2867 ([frontispiece article](#)) ([Highlighted in C&E News, Chemistry Industry, Journal of Materials Chemistry](#))
23. L. J. Cote, R. Cruz-Silva and J. Huang "Flash Reduction and Patterning of Graphite Oxide and Its Polymer Composite" *J. Am. Chem. Soc.*, **2009**, 131, 11027 ([Highlighted in C&E News, Current Science, Physics World, and Featured in C&E News, "Chemical Year in Review 2009"](#))
24. Y. S. Zhao, J. Wu and J. Huang "Vertical Organic Nanowire Arrays: Controlled Synthesis and Chemical Sensors" *J. Am. Chem. Soc.*, **2009**, 131, 3158-3159
25. F. Kim, K. Sohn, J. Wu and J. Huang "Chemical Synthesis of Au Nanowires in Acidic Solutions" *J. Am. Chem. Soc.*, **2008**, 130, 14442

RESEARCH GROUP MEMBERS AND THEIR ACHIEVEMENTS

Graduate and postdoctoral alumni in faculty positions (7): University of California, Merced/Kyoto University and Shinshu University, Japan/Hanyang University, South Korea/ Institute of Chemistry, Chinese Academy of Sciences, Tianjin University and Guizhou University, China

Significant awards received by students: Carbon Journal Prize for Outstanding PhD Thesis in Carbon Research (2 awards in 2014); Josephine de Karman Fellowship (<8 awards/year to students in any discipline in North America); P.E.O. Scholar Awards; MRS Graduate Student Awards (1 Gold and 2 Silver); NSF Fellowship (3 awards); Illinois Technology Foundation Fifty For The Future Awardee; Phi Beta Kappa