Curriculum Vitae – Dr. Hongyou Fan

Current address: Sandia National Laboratories, Advanced Materials Laboratory, 1001 University Blvd. SE, Albuquerque, NM 87106, Tel: (505) 272-7128; Email: hfan@sandia.gov

Current Position:

1. Distinguished Member of the Technical Staff, Sandia National Laboratories, Albuquerque, New Mexico
2. Research Professor, Center for Micro-Engineered Materials, Department of Chemical and Biological Engineering, University of New Mexico, Albuquerque, New Mexico

Education:

BS	Chemistry,	Jilin University, China,	1990
MS	Polymer Science,	Chinese Academy of Sciences	1995
PhD	Chemical Engineering,	University of New Mexico	2000

Professional Experiences:

2015 – present	Distinguished Member of the Technical Staff, Sandia National Laboratories, Albuquerque, New Mexico.
2007 – 2014	Principal Member of the Technical Staff, Sandia National Laboratories, Albuquerque, New Mexico.
2002 – 2006	Senior Member of the Technical Staff, Sandia National Laboratories, Albuquerque, New Mexico.
2004 – present	Research Professor, Center for Micro-Engineered Materials, Department of Chemical and Biological Engineering, University of New Mexico, Albuquerque, New Mexico.
2000 – 2002	Postdoctoral Fellow, Sandia National Laboratories, Albuquerque, New Mexico.

Honors and Awards:

2015 Materials Research Society (MRS) Fred Kavli Distinguished Lectureship Award in Nanoscience
2015 2015 MRS Spring Meeting Chair
2013 Sandia National Lab Outstanding Wise Leadership (OWL) Award
2013 Federal Laboratory Consortium (FLC) - Outstanding Technology Development Award
2013 The MRS Meeting Best Poster Award
2012 Asian American Engineer of the Year Award
2012 The MRS Meeting Best Poster Award
2010 R&D 100 Award: Multifunctional Optical Coatings by Rapid Self-Assembly
2010 Sandia National Laboratories, "Employee Recognition Team Award,"
2008 FLC - Outstanding Technology Development Award
2007 R&D 100 Award: Self-Assembling Process for Fabrication of Tailored Thin Films
2007 DOE Sandia National Laboratories, "Laboratory Directed Research and Development Award for Excellence"
2005 The University of New Mexico, "Outstanding Faculty Mentor Award"
2000 The MRS Outstanding Graduate Student Award
2000 The University of New Mexico Outstanding Graduate Student Award
2000 UNM/NSF Center for Micro-Engineered Material, Industrial Advisory Board Meeting, poster presentation 1st Prize

Lead Technical Service and Society Committee:

1. Served as the 2015 MRS Spring Meeting Co-Chair.
2. Served as the MRS Program Development Subcommittee
3. 2011-2015 MRS Meeting Symposium Lead Organizers
4. Cornell High Energy Synchrotron Source (CHESS) User Executive Committee
5. Director of the Sandia National Laboratories – Albuquerque Institute of Math and Science (AIMS) High School Student Program (2009-2011)
6. 2008 IEEE International Conference on Nanotechnology Technical Committee
7. 2008 AAAS "SWARM" Regional Conference Technical Committee
8. Committee Member and contributor for the Implementation Plan for Chemical Industry R&D Roadmap for Nanomaterials by Design, 2005
9. Editorial board member for *Nanoscience and Nanotechnology Letters, The Open Physical Chemistry Journal, and The Open Materials Science Journal*

Selected Publications: (from ~100 publications)

1. X.W. Zhou, M.E. Foster, R. Jones, P. Yang, H. Fan, F.P. Doty, "A modified stillinger-weber potential for TlBr, and its polymorphic extension," *Journal of Materials Science Research*, 4 (3), 15-32, 2015.
2. B. Li, X. Wen, R. Li, Z. Wang, P. G. Clem, and H. Fan, "Stress-induced phase transformation and optical coupling of silver nanoparticle superlattices into mechanically stable nanowires," *Nature Communications*, 5, 4179, 10.1038/ncomms5179, 2014.
3. Y. Zhong, J.F. Wang, R.F. Zhang, W.B. Wei, H.M. Wang, X.P. Lu, F. Bai, H.M. Wu, R. Haddad, and H. Fan, "Morphology-controlled self-assembly and synthesis of photocatalytic nanocrystals," *Nano Letters*, 14 (12), 7175-7179, 2014.
4. H.Q. Tan, Z. Zhao, W.B. Zhu, E.N. Coker, B.S. Li, M. Zheng, W.X. Yu, H. Fan, Z.C. Sun, "Oxygen vacancy enhanced photocatalytic activity of pervoskite SrTiO3," *ACS Applied Materials & Interfaces*, 6 (21) 19184-19190, 2014.
5. H. Wu, Z. Wang, and H. Fan, "Stress-induced nanoparticle crystallization," *Journal of the American Chemical Society*, 136 (21), 7634–7636, 2014.

Selected Intellectual Property: from > 20 patents and patent applications

1. US Patent No. 8,871,926 B1: Hongyou Fan and Feng Bai, "Synthesis of Porphyrin Nanostructures," issued on October 28, 2014.
2. US patent No. 8,455,048 B1: Hongyou Fan and Huimeng Wu, "Method of making nanomaterials," issued on June 4, 2013.
3. US patent No. 8,455,981 B1: Hongyou Fan and Zaicheng Sun, "Method of making nanoporous hydrophobic coatings," issued on April 23, 2013.
4. US patent No. 8,288,001 B1: Hongyou Fan and Huimeng Wu, "Method of making monodisperse nanoparticles," issued on Oct 16, 2012.
5. US Patent Pending (application # 13/905,959), Hongyou Fan and Binsong Li, "Tuning and synthesis of semiconductor nanostructures by mechanical compression," filed on May 30, 2013.

Selected Invited presentations: > 50 invited/award/plenary presentations

Thesis Advisors: Professors Gabriel Lopez & Jeffrey Brinker

Postdoc mentor: Professor Jeffrey Brinker