Jiming Bao, Ph.D.

Professional Preparation

Zhejiang University	Hangzhou, China	Physics	BS	1992
Zhejiang University	Hangzhou, China	Physics	MS	1995
University of Michigan	Ann Arbor, MI	Applied Physics	PhD	2003
Harvard University	Cambridge, MA	Applied Physics	Post-Doc	9/03-6/06

Appointments

9/2019-present	Professor, Department of Electrical and Computer Engineering, Materials Engineering Program, Department of Chemistry University of Houston, Houston, TX
9/2014-8/2019	Associate Professor, Department of Electrical and Computer Engineering, Materials Engineering Program, Department of Chemistry University of Houston, Houston, TX
9/2008-8/2014	Assistant Professor, Department of Electrical and Computer Engineering, Materials Engineering Program, Department of Chemistry University of Houston, Houston, TX
7/2006-8/2008	Research Associate, School of Engineering and Applied Sciences, Harvard University, Cambridge, MA

Publications most closely related to the proposed project:

1. Zhuan Zhu, Jiangtan Yuan, Haiqing Zhou, Jonathan Hu, Jing Zhang, Chengli Wei, Fang Yu, Shuo Chen, Yucheng Lan, Yao Yang, Yanan Wang, Chao Niu, Zhifeng Ren, Jun Lou, Zhiming Wang and Jiming Bao, "Excitonic Resonant Emission-Absorption of Surface Plasmon in Transition Metal Dichalcogenides for Chip-level Electronic-Photonic Integrated Circuits" *ACS Photonics* **3**, 869-874 (2016). https://doi.org/10.1021/acsphotonics.6b00101.
2. Yanan Wang, Zhihua Su, Wei Wu, Shu Nie, Xinghua Lu, Haiyan Wang, Kevin McCarty, Shin-Shem Pei, Francisco Robles-Hernandez, Viktor G. Hadjiev, Jiming Bao. "Four-fold Raman Enhancement of 2D Band in Twisted Bilayer Graphene: "Evidence for Doubly Degenerate Dirac Band and Quantum Interference", *Nanotechnology* **25**, 335201 (2014). https://doi.org/10.1088/0957-4484/25/33/335201.
3. Y. Wang, Z. Su, W. Wu, S. Nie, N. Xie, H. Gong, Y. Guo, J. H. Lee, S. Xing, X. Lu, H. Wang, X. Lu, K. McCarty, S. Pei, F. Robles-Hernandez, V. G. Hadjiev, and J. Bao. "Resonance Raman Spectroscopy of G-Line and Folded Phonons in Twisted Bilayer Graphene with Large Rotation Angles", *Applied Physics Letters* **103**, 123101 (2013). https://doi.org/10.1063/1.4821434.
4. Qingkai Yu, Luis A. Jauregui, Wei Wu, Robert Colby, Jifa Tian, Zhihua Su, Helin Cao, Zhihong Liu, Deepak Pandey, Dongguang Wei, Ting Fung Chung, Peng Peng, Nathan P. Guisinger, Eric A. Stach, Jiming Bao, Shin-Shem Pei and Yong P. Chen, "Control and characterization of individual grains and grain boundaries in graphene grown by chemical vapour deposition", *Nature Materials* **10**, 443 (2011). https://doi.org/10.1038/nmat3010.

5. Md Kamrul Alam, Chao Niu, Yanan Wang, Wei Wang, Yang Li, Chong Dai, Tian Tong, Xiaonan Shan, Earl Charlson, Steven Pei, Xiang-Tian Kong, Yandi Hu, Alexey Belyanin, Gila Stein, Zhaoping Liu, Jonathan Hu, Zhiming Wang and Jiming Bao, "Large graphene-induced shift of surface-plasmon resonances of gold films: Effective-medium theory for atomically thin materials", *Phys. Rev. Research* **2**, 013008 (2020). https://doi.org/10.1103/PhysRevResearch.2.013008.

Other significant publications:

6. Jiming Bao, A. V. Bragas, J. K. Furdyna and R. Merlin. "Optically Induced Multispin Entanglement in a Semiconductor Quantum Well", *Nature Materials.* **2**, 175 (2003). https://doi.org/10.1038/nmat839.
7. Yanan Wang, Qiuhui Zhang, Zhuan Zhu, Feng Lin, Jiangdong Deng, Geng Ku, Suchuan Dong, Shuo Song, Md Kamrul Alam, Dong Liu, Zhiming Wang and Jiming Bao, "Laser Streaming: Turning a Laser Beam into a Flow of Liquid" *Science Advances* **3**, e1700555 (2017). https://doi.org/10.1126/sciadv.1700555.
8. Zhihong Liu, Xiaoxiang Lu, Peng Peng, Wei Wu, Steven Pei, Qingkai Yu and Jiming Bao, "Room-temperature Tunable Fano Resonance by Chemical Doping in Few-layer Graphene Synthesized by Chemical Vapor Deposition", *Physical Review B* **82**, 155435 (2010). https://doi.org/10.1103/PhysRevB.82.155435.
9. Jiming Bao, L. N. Pfeiffer, K. W. West and R. Merlin. "Ultrafast Dynamic Control of Spin and Charge Density Oscillations in a GaAs Quantum Well", *Phys. Rev. Lett.* **92**, 236601 (2004). https://doi.org/10.1103/PhysRevLett.92.236601.
10. Feng Lin, Guang Yang, Chao Niu, Yanan Wang, Zhuan Zhu, Haokun Luo, Chong Dai, David Mayerich, Yandi Hu, Jonathan Hu, Xufeng Zhou, Zhaoping Liu, Zhiming M. Wang, and Jiming Bao, "Planar Alignment of Graphene Sheets by a Rotating Magnetic Field for Full Exploitation of Graphene as a 2D Material", *Advanced Functional Materials* **28**, 1805255 (2018). https://doi.org/10.1002/adfm.201805255.

Synergistic Activities

- Chapter Chair: IEEE Photonics Society (2017-present), IEEE Nanotechnology Council (2015-present).
- Associate editor: Journal of Semiconductors; IEEE Nanotechnology Magazine
- Memberships: American Physical Society (APS), Optical Society of America (OSA), Materials Research Society (MRS). Institute of Electrical and Electronics Engineers (IEEE), American Association for the Advancement of Science (AAAS), American Chemical Society (ACS).
- Served as a reviewer for the following journals: *Nature Energy, Nature Chemistry, Nature Nanotechnology, Nano Letters, ACS Nano, Journal of Physical Chemistry, Langmuir, Applied Physics Letters, Nanoscale, Small, Optics Express, Chemical Science, Optics Letters,* and others.
- Served as a reviewer for grant applications for the following organizations: National Science Foundation, Department of Energy, ACS Petroleum Research Fund, The Agency for Science, Technology and Research, Singapore (A*STAR), The Israel Science Foundation.