

## Liangfeng Sun

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### Professional preparation

Tsinghua University, Beijing, China	Engineering Physics	B.E. 1997
Institute of High Energy Physics, Beijing, China	Physics	M.S. 2000
University of Texas at Austin, Austin, TX	Physics	Ph.D. 2006
Cornell University, Ithaca, NY	Applied Physics	Postdoc 2006-2011

### Appointments

Professor	Bowling Green State University	2023-
Associate Professor	Bowling Green State University	2017-2023
Assistant Professor	Bowling Green State University	2011-2017

### Products

#### Relevant publications (based on the work at Bowling Green State University)

1. Antara Debnath Antu, Zhoufeng Jiang, Shashini M. Premathilka, Yiteng Tang, Jianjun Hu, Ajit Roy, and Liangfeng Sun, "Bright Colloidal PbS Nanoribbons", *Chemistry of Materials* **30**, 3697 (2018) <https://pubs.acs.org/doi/10.1021/acs.chemmater.8b00467>
2. Wenhui Wan, Yugui Yao, Liangfeng Sun, Cheng-Cheng Liu, Fan Zhang, "Topological, Valleytronic, and Optical Properties of Monolayer PbS", *Advanced Materials* **29**, 1604788 (2017) <http://onlinelibrary.wiley.com/doi/10.1002/adma.201604788/abstract>
3. Simeen Khan, Zhoufeng Jiang, S hashini M. Premathilka, Antara Antu, Jianjun Hu, Andrey A. Voevodin, Paul J. Roland, Randy J. Ellingson, Liangfeng Sun, "Few-Atom-Thick Colloidal PbS/CdS Core/Shell Nanosheets", *Chemistry of Materials* **28**, 5342 (2016) <http://pubs.acs.org/doi/abs/10.1021/acs.chemmater.6b01232>
4. Zhoufeng Jiang, Ghadendra B. Bhandari, Shashini Premathilake, Simeen Khanh, Douglas M. Dimick, Cody Stombaugh, Angelic Mandell, Yufan He, H. Peter Lu, Liangfeng Sun, "Growth of Colloidal PbS Nanosheets and the Enhancement of Their Photoluminescence", *Physical Chemistry Chemical Physics* **17**, 23303 (2015) <http://pubs.rsc.org/en/content/articlehtml/2015/cp/c5cp03140k>
5. Ghadendra B. Bhandari, Kamal Subedi, Yufan He, Zhoufeng Jiang, Matthew Leopold, Nick Reilly, H. Peter Lu, Alexey T. Zayak, Liangfeng Sun, "Thickness-Controlled Synthesis of Colloidal PbS Nanosheets and Their Thickness-Dependent Energy Gaps", *Chemistry of Materials* **26**, 5433 (2014). <http://pubs.acs.org/doi/abs/10.1021/cm502524z>

#### Significant publications

1. Liangfeng Sun, Joshua J. Choi, David Stachnik, Adam C. Bartnik, Byung-Ryool Hyun, George G. Malliaras, Tobias Hanrath and Frank W. Wise, "Bright infrared quantum-dot light-emitting diodes through inter-dot spacing control", *Nature Nanotechnology* **7**, 369 (2012) <http://www.nature.com/nano/journal/v7/n6/abs/nnano.2012.63.html>
2. Liangfeng Sun, Lei Bao, Byung-Ryool Hyun, Adam C. Bartnik, Yu-Wu Zhong, Jason C Reed, Dai-Wen Pang, Hector D. Abruna, George G. Malliaras, and Frank W. Wise, "Electrogenerated Chemiluminescence from PbS Quantum Dots", *Nano Letters* **9**, 789 (2009). <http://pubs.acs.org/doi/abs/10.1021/nl803459b>

3. Haitao Zhang, Bo Hu, Liangfeng Sun, Robert Hovden, Frank W. Wise, David A. Muller, and Richard D. Robinson, "Surfactant Ligand Removal and Rational Fabrication of Inorganically Connected Quantum Dots", *Nano Letters* **11**, 5356 (2011).  
<http://pubs.acs.org/doi/abs/10.1021/nl202892p>
4. Joshua J. Choi, Justin Luria, Byung-Ryool Hyun, Adam C. Bartnik, Liangfeng Sun, Yee-Fun Lim, John A. Marohn, Frank W. Wise, and Tobias Hanrath, "Photogenerated exciton dissociation in highly coupled lead salt nanocrystal assemblies", *Nano Letters* **10**, 1805, (2010). <http://pubs.acs.org/doi/abs/10.1021/nl100498e>
5. Peter Figliozzi, Liangfeng Sun, Yingying Jiang, Nicholas Matlis, B. Mattern, Michael C. Downer, S. P. Withrow, C. W. White, Wolf Luis Mochan, and Bernardo. S. Mendoza, "Single-Beam and Enhanced Two-Beam Second-Harmonic Generation from Silicon Nanocrystals by Use of Spatially Inhomogeneous Femtosecond Pulses", *Physical Review Letters* **94**, 047401 (2005).  
<http://journals.aps.org/prl/abstract/10.1103/PhysRevLett.94.047401>

### **Synergistic activities**

1. *Research-based education for persons with disabilities*: developed strategies to involve undergraduate students with autism spectrum disorder in research, making sure that they receive equal opportunities and obtain a research-based education.
2. *Outreach*: hosted three times the Advanced Placement Chemistry Field Trip for the students at a local high school – Perrysburg High School, providing them hands-on activities in nanomaterial synthesis and characterization.
3. *Innovations in teaching*: developed interactive teaching procedure in undergraduate courses University Physics II and College Physics I; developed graduate course "Techniques in Experimental Physics", incorporated latest research results on nanomaterials into the lectures; Honored teaching skills through attending the 20th Physics and Astronomy New Faculty Workshop organized by the American Association of Physics Teachers at the American Center for Physics in 2012.
4. *Scientific Community service*: reviewer for about 20 scientific journals, including *Nature Communications*, *Nano Letters* and *Advanced Materials*; Served as an editorial board member for *Advances in Nano Research*.