

CURRICULUM VITAE

Jiansheng Jie (揭建勝), Ph.D., Professor

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PROFESSIONAL EXPERIENCE

- 2021-Present** Professor, Macao Institute of Materials Science and Engineering, Macau University of Science and Technology
- 2012-Present** Professor, FUNSOM, Soochow University
- 2006-2011** Professor, Hefei University of Technology
- 2005-2008** Postdoctoral Fellow, City University of Hong Kong
- 2004-2005** Research Assistant, University of Hong Kong

EDUCATION

Dates	Institution	Degree
09/1999-07/2004	University of Science and Technology of China Department of Physics	Ph.D.
09/1995-07/1999	University of Science and Technology of China Department of Physics	B.S.

RECENT HONORS AND AWARDS

- 2022** The National Science Fund for Outstanding Young Scientists, National Natural Science Foundation of China (NSFC)
- 2020** National Hundred, Thousand and Ten Thousand Talent Project, Ministry of Human Resources and Social Security of China
- 2020** First Prize of Science and Technology of Jiangsu Province
- 2020** Young and Middle-aged Experts with Outstanding Contributions of China
- 2021** Fellow of the Royal Society of Chemistry (FRSC)
- 2014** The National Science Fund for Excellent Young Scientists, National Natural Science Foundation of China (NSFC)
- 2008** New Century Excellent Talents, Ministry of Education of China
- 2016** Third Prize of Science and Technology Achievement Award in Universities of Jiangsu, Jiangsu Province
- 2016** Leading Talents of Science and Technology, Suzhou Industrial Park
- 2016** 333 High-Level Scholars Cultivation Program, Jiangsu Province
- 2016** The Six Talent Peaks Project, Jiangsu Province

SYNERGISTIC ACTIVITIES

- Editor Board of Chinese Chemical Letters
- International Advisory Board of Materials Research Express
- Guest Editor: Nanotechnology, J. Nanoeng. Nanomanf.
- Invited Reviewer for: Nature Photonics, Nature Communications, Science Advances, Advanced Materials, Nano Letters, ACS Nano, Angew. Chem. Int. Ed., et al.
- Chair of OSA Light, Energy and the Environment Congress, Suzhou, China (2015)
- Co-chair of OSA Light, Energy and the Environment Congress, Canberra, Australia (2014)
- Co-chair of Micro and Nano Optics Technology and Application Exchange Conference, China Optical Association (2017)

CURRENT RESEARCH TOPICS

- 1D and 2D nanomaterials and nanodevices
- Organic semiconductor and optoelectronic devices, including organic field-effect transistors (OFETs), organic light-emitting diodes (OLEDs), and organic photodetectors (OPDs)
- Organic micro/nano crystals and optoelectronic devices
- Perovskite micro/nano crystals and optoelectronic devices

RESEARCH ACCOMPLISHMENTS

Prof. Jie has published 250 peer-reviewed papers in professional journals, such as Nat. Electron., Nat. Commun., Adv. Mater., Mater. Today, Nano Lett., and ACS Nano with a paper H-index factor of 61. These works have received over 13000 citations and 18 papers are selected as ESI highly cited paper. His works have been highlighted by the journals/scientific websites such as “Nature Materials”, “Nature China”, “Materials Views”, and “NPG Asia Mater”. He is an inventor on over 30 patents and patent applications, many of which are licensed or in active use by companies and startups that he has co-founded.

INTERNATIONAL CONFERENCES

- 1) The 5th International Conference on 2D Materials and Technology, Suzhou, China, Invited speaker
- 2) The 8th International Conference on Nanoscience & Technology, Beijing, China, Invited speaker
- 3) The 4th International TADF Workshop, Fukuoka, Japan, Invited speaker
- 4) The 11th Asian Conference on Organic Electronics, New Taipei City, China, Invited speaker
- 5) The 3rd International Conference on Polymer Science and Engineering, Beijing, China, Keynote speaker
- 6) The 10th Asian Conference on Organic Electronics, Hong Kong, China, Invited speaker

- 7) 2018 International Seminar on Advanced Materials Research, Shanghai, China, Invited speaker
- 8) The 14th International Conference on Nanostructured Materials, Hong Kong, China, Invited speaker
- 9) 2017 NEA Symposium of Emerging Materials Innovation, Seoul, Korea, Invited speaker
- 10) The Asian Pacific Conference on Chemistry of Materials 2017, Kaifeng, China, Invited speaker
- 11) China PV Technology International Conference, Xi'an, China, Invited speaker
- 12) The 2nd International Conference on Organic Optoelectronics, Ningbo, China, Invited speaker
- 13) The 4th International Workshop on Organic Composite Optoelectronic Materials and Devices, Kunshan, China, Invited speaker
- 14) 2015 OSA Light, Energy and the Environment Congress, Suzhou, China, Local organizing chair
- 15) 2014 OSA Light, Energy and the Environment Congress, Canberra, Australia, Program co-chair
- 16) The International Nanophotonics and Nanoenergy Conference 2014, Seoul, Korea, Invited speaker
- 17) The International New Diamond and Nano Carbons Conference 2014, Chicago, USA, Invited speaker
- 18) The International Conference on Advanced Materials 2013, Qingdao, China, Invited speaker
- 19) The 68th IUVESTA Workshop on Multifunctional Surface Engineering for Advanced Energy Applications, Hong Kong, China, Invited speaker

REPRESENTATIVE PUBLICATIONS

Total Publication Number: 250; Sum of the Times Cited: ~13000; *h*-index 61

- [1] Jiansheng Jie, Wei Deng, Xiujuan Zhang* and Xiaohong Zhang*, A phototransistor with visual adaptation, *Nat. Electron.* 2021, 4, 460.
- [2] Zhibin Shao, Tianhao Jiang, Xiujuan Zhang, Xiaohong Zhang*, Xiaofeng Wu, Feifei Xia, Shiyun Xiong, Shuit-Tong Lee*, **Jiansheng Jie***, "Memory phototransistors based on exponential association photoelectric conversion law", *Nat. Commun.* 2019, 10, 1294.
- [3] Wei Deng, **Jiansheng Jie***, Xiuzhen Xu, Yanling Xiao, Bei Lu, Xiujuan Zhang and Xiaohong Zhang*, "A Microchannel-Confined Crystallization Strategy Enables Blade Coating of Perovskite Single Crystal Arrays for Device Integration", *Adv. Mater.* 2020, 1908340.
- [4] Jinwen Wang, Xiaofeng Wu, Jing Pan, Tanglue Feng, Di Wu, Xiujuan Zhang, Bai Yang, Xiaohong Zhang, **Jiansheng Jie***, "Graphene-Quantum-Dots-Induced Centimeter-Sized Growth of Monolayer Organic Crystals for High-Performance Transistors", *Adv. Mater.* 2020, DOI: 10.1002/adma.202003315.
- [5] Siyi Huang, Bingchang Zhang*, Zhibin Shao, Le He, Qiao Zhang, **Jiansheng Jie***, Xiaohong Zhang*, "Ultraminaturized Stretchable Strain Sensors Based on Single Silicon Nanowires for Imperceptible Electronic Skins", *Nano. Lett.* 2020, 20, 2478.
- [6] Xiujuan Zhang, Jian Mao, Wei Deng, Liming Huang, Xiaohong Zhang, Shuit-Tong Lee, **Jiansheng Jie***, "Precise Patterning of Laterally Stacked Organic Microbelt Heterojunction Arrays by Surface-energy Controlled Stepwise Crystallization for Ambipolar Organic Field-effect Transistors", *Adv. Mater.* 2018, 1800187.

- [7] Peng Xiao, Jie Mao, Ke Ding, Wenjin Luo, Weida Hu, Xiujuan Zhang, Xiaohong Zhang*, **Jiansheng Jie***, "Solution-processed three-dimensional RGO-MoS₂/pyramid Si heterojunction for ultrahigh-detectivity and ultra-broadband photodetection", *Adv. Mater.* 2018, 1801729.
- [8] Wei Deng, Liming Huang, Xiuzhen Xu, Xiujuan Zhang, Xiangcheng Jin, Shuit-Tong Lee, and **Jiansheng Jie***, "Ultrahigh-Responsivity Photodetectors from Perovskite Nanowire Arrays for Sequentially Tunable Spectral Measurement", *Nano Lett.* 2017, 17, 2482.
- [9] Wei Deng, Xiujuan Zhang*, Liming Huang, Xiuzhen Xu, Liang Wang, Jincheng Wang, Qixun Shang, Shuit-Tong Lee, Jiansheng Jie*, "Aligned Single-Crystalline Perovskite Microwire Arrays for High-Performance Flexible Image Sensors with Long-Term Stability", *Adv. Mater.* 2016, 28, 2201.
- [10] Xiujuan Zhang, Jiansheng Jie*, Wei Deng, Qixun Shang, Jincheng Wang, Hui Wang, Xianfeng Chen, Liming Huang, and Xiaohong Zhang*, "Alignment and Patterning of Ordered Small-molecule Organic Semiconductor Micro/nanocrystals for Device Applications", *Adv. Mater.* 2016, 28, 2475.
- [11] Xiujuan Zhang, Zhibin Shao, Xiaohong Zhang*, Yuanyuan He, **Jiansheng Jie***, "Surface Charge Transfer Doping of Low-Dimensional Nanostructures toward High-Performance Nanodevices", *Adv. Mater.* 2016, 28, 10409.
- [12] Feifei Xia, Zhibin Shao, Yuanyuan He, Rongbin Wang, Xiaofeng Wu, Tianhao Jiang, Steffen Duhm, Jianwei Zhao, Shuit-Tong Lee* and **Jiansheng Jie***, "Surface Charge Transfer Doping via Transition Metal Oxides for Efficient p-Type Doping of II-VI Nanostructures", *ACS Nano* 2016, 10, 10283.
- [13] Hongbin Zhang, Xiujuan Zhang*, Chang Liu, Shuit-Tong Lee* and **Jiansheng Jie***, "High Responsivity, Ultrafast Topological Insulator Bi₂Se₃ Film/Silicon Heterostructure Photodetectors", *ACS Nano* 2016, 10, 5113.
- [14] Zhibin Shao, **Jiansheng Jie***, Zheng Sun, Feifei Xia, Yuming Wang, Xiaohong Zhang*, Ke Ding, and Shuit-Tong Lee* "MoO₃ Nanodots Decorated CdS Nanoribbons for High-Performance, Homojunction Photovoltaic Devices on Flexible Substrates" *Nano Lett.* 2015, 5, 3590.
- [15] Wei Deng, Xiujuan Zhang*, Liang Wang, Jincheng Wang, Qixun Shang, Xiaohong Zhang*, Liming Huang, **Jiansheng Jie***, "Wafer-Scale Precise Patterning of Organic Single-Crystal Nanowire Arrays via a Photolithography-Assisted Spin-Coating Method", *Adv. Mater.* 2015, 27, 7305.