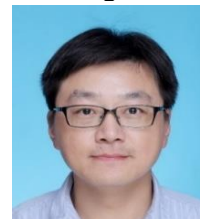


Professor TANG, JIANXIN

Department of Materials Science and Engineering, Faculty of Innovation Engineering
Macau University of Science and Technology

Office: P27-125
Tel.: +853-8897 3973
E-mail: jxtang@must.edu.mo



Academic Qualification

Ph.D. in Physics and Materials Science, City University of Hong Kong
B.S. in Physics, Zhejiang University

Teaching Area

Semiconductor Device Physics and Technology
Solid-State Physics
Information Display and Lighting

Research Area

OLEDs and OPVs
Flexible Electronics
Perovskite-based Optoelectronics
Surface Science of Organic Semiconductors

Working Experience

2006-2007, Senior Research Assistant, City University of Hong Kong, Hong Kong, China
2007-2008, Chip Design Engineer on Power Electronics, Mitsubishi Electric Corporation, Fukuoka, Japan
2008-present, Professor, Institute of Functional Nano & Soft Materials (FUNSOM), Soochow University, Suzhou, China
2021-present, Professor, Department of Materials Science and Engineering, Faculty of Innovation Engineering, Macau University of Science and Technology, Macao, China

Academic Publication (selected)

- Deyu Gao, Ru Li, Xihan Chen, Cong Chen,* Chenglin Wang, Boxue Zhang, Mengjia Li, Xueni Shang, Xuemeng Yu, Shaokuan Gong, Thierry Pauporté, Hua Yang, Liming Ding,* **Jian-Xin Tang**,* Jiangzhao Chen,* Managing Interfacial Defects and Carriers by Synergistic Modulation of Functional Groups and Spatial Conformation for High-Performance Perovskite Photovoltaics Based on Vacuum Flash Method, **Advanced Materials** **2023**, 35(23). 2301028.
- Yi-Hui He, Feng-Ming Xie,* Kai Zhang, Dezhi Yang, Yang Shen, Hao-Ze Li, Dongge Ma, Yan-Qing Li,* **Jian-Xin Tang**,* Acceptor-Donor-Acceptor-Configured Delayed Fluorescence Emitters for Efficient Orange-Red and White Devices with Low Roll-off. **Advanced Functional Materials** **2023**, 33, 2304006.
- Ye-Fan Zhang, Hao Ren, Jing-De Chen,* Hong-Yi Hou, Hui-Min Liu, Shuo Tian, Wei-Shuo Chen, Heng-Ru Ge, Yan-Qing Li,* Hongying Mao, Zisheng Su, **Jian-Xin Tang**,* Efficient and Stable Flexible Organic Solar Cells via the Enhanced Optical-Thermal Radiative Transfer, **Advanced Functional Materials** **2023**, 33(18), 2212260.
- Wei Zhou, Yang Shen,* Long-Xue Cao, Yu Lu, Ying-Yi Tang, Kai Zhang, Hao Ren, Feng-Ming Xie, Yan-Qing Li,* **Jian-Xin Tang**,* Manipulating Ionic Behavior with Bifunctional Additives for Efficient Sky-Blue Perovskite Light-Emitting Diodes, **Advanced Functional Materials** **2023**, 33(27), 2301425.
- Kai Zhang, Long-Xue Cao, Yingyi Tang, Yi Yu, Yang Shen, Bingfeng Wang, Wen-Jun Wang,* Yan-Qing Li,* **Jian-Xin Tang**,* Blue Halide Perovskite Materials: Preparation, Progress, and Challenges, **Laser Photonics Reviews** **2023**, 17, 2200689
- Yi Yu, Yingyi Tang, Bingfeng Wang, Kai Zhang, **Jian-Xin Tang**,* Yan-Qing Li,* Red Perovskite Light-Emitting Diodes: Recent Advances and Perspectives, **Laser Photonics Reviews** **2023**, 17, 2200608.
- Feng-Ming Xie, Hao-Ze Li, Kai Zhang, Yang Shen, Xin Zhao, Yan-Qing Li,* **Jian-Xin Tang**,* A Dislocated Twin-Locking Acceptor-Donor-Acceptor Configuration for Efficient Delayed Fluorescence with Multiple Through-Space Charge Transfer. **Angew. Chem. Int. Ed.** **2022**, 61, e202213823.
- Hanwen Zhu, Guoqing Tong,* Junchun Li, Enze Xu, Xuyong Tao, Yuanyuan Sheng, **Jianxin Tang**,* Yang Jiang,* Enriched-bromine surface state for stable sky-blue spectrum perovskite QLEDs with an EQE of 14.6%. **Advanced Materials** **2022**, 34, 2205092.
- Jing-De Chen, Ling Li, Chao-Chao Qin, Hao Ren, Yan-Qing Li,* Qing-Dong Ou, Jia-Jia Guo, Shi-Jie Zou, Feng-Ming Xie, Xianjie Liu, **Jian-Xin Tang**,* Hot-Electron Emission-Driven Energy Recycling in Transparent Plasmonic Electrode for Organic Solar Cells, **InfoMat** **2022**, 4(3), e12285.
- Hong-Yi Hou, Shuo Tian, Heng-Ru Ge, Jing-De Chen,* Yan-Qing Li,* **Jian-Xin Tang**,* Recent Progress of Polarization-Sensitive Perovskite Photodetectors, **Advanced Functional Materials** **2022**, 32(48), 2209324.
- Yang Shen, Yan-Qing Li,* Kai Zhang, Liu-Jiang Zhang, Feng-Ming Xie, Li Chen, Xiao-Yi Cai, Yu Lu, Hao Ren, Xingyu Gao, Haijiao Xie, Hongying Mao, Satoshi Kera, **Jian-Xin Tang**,* Multifunctional Crystal Regulation Enables Efficient and Stable Sky-Blue Perovskite Light-Emitting Diodes, **Advanced Functional Materials** **2022**, 32, 2206574.
- Hao Ren, Yunlong Ma, Hui-Min Liu, Jing-De Chen,* Ye-Fan Zhang, Hong-Yi Hou, Yan-Qing Li, Qingdong Zheng,* **Jian-Xin Tang**,* Absorption Spectrum-Compensating Configuration Reduces the Energy Loss of Nonfullerene Organic Solar Cells. **Advanced Functional Materials** **2022**, 32, 2109735.
- Ruiman Ma, Jiawei Zheng, Yu Tian, Can Li, Benzhen Lyu, Linyang Lu, Zhenhuang Su, Li Chen, Xingyu Gao, **Jian-Xin Tang**,* Wallace C. H. Choy,* Self-Polymerization of Monomer and Induced Interactions with Perovskite for Highly Performed and Stable Perovskite Solar Cells, **Advanced Functional Materials** **2022**, 32, 2105290.
- Xiaoyan Qian, Yang Shen, Liu-Jiang Zhang, Minglei Guo, Xiao-Yi Cai, Yu Lu, Huimin Liu, Ye-Fan Zhang, Yanqing Tang, Li Chen, Yingyi Tang, Jingkun Wang, Wei Zhou, Xingyu Gao, Hongying Mao, Yanqing Li,* **Jian-Xin Tang**,* Shuit-Tong Lee,* Bio-Inspired Pangolin Design for Self-Healable Flexible Perovskite Light-Emitting Diodes. **ACS Nano** **2022**, 16 (11). 17973-17981.

Books

- Ruipeng Xu, Yanqing Li, **Jianxin Tang**, "Chapter 13: Nanostructures for Plasmonic Effects in Solar Cells and LEDs (page 477-526)" in *Advanced Nanomaterials for Solar Cells and Light-Emitting Diodes*, (2019) edited by Feng Gao. Publisher: Elsevier.
- Qinye Bao, Yanqing Li, **Jianxin Tang**, "Chapter 4: Application of Transition Metal Oxides in Tandem Organic Optoelectronics: Energetics and Device Physics" in *New Developments in Metal Oxides Research*, (2013) edited by Istvan Nagy and Adam Balogh, Publisher: NOVA Publishers.
- J. X. Tang**, C. S. Lee, and S. T. Lee, "Application of Transition Metal Oxides in Tandem Organic Optoelectronics: Energetics and Device Physics" in *Proceedings of the International Symposium on Super-Functionality Organic Devices: October 25-28, 2004, Chiba University, Chiba, Japan*, (2005) edited by Nobuo Ueno. Publisher: Institute of Pure and Applied Physics.

Patents

22 Patents have been authorized by China National Intellectual Property Administration.

Professional Certification and Awards

2018 First Class Prize of Science and Technology Award of Jiangsu Province, China

2018 Young Science & Technology Award of Jiangsu Province, China

2017 Second Class Prize of Natural Sciences Award of Ministry of Education, China

2015 Excellent Young Scholars from National Natural Science Foundation of China

Professional Society Membership

Editor, IEEE Electron Device Letters

Member, Institute of Electrical and Electronics Engineers (IEEE)

Member, American Chemistry Society

Member, Society of Information Display

Senior Member, Chinese Optical Society

Editorial Board, Chinese Journal of Liquid Crystals and Displays

Editorial Board, Chinese Journal of Luminescence

Editorial Board, Optics and Precision Engineering