

Optoelectronic Materials and Devices

- 1. Resolving Mixed Intermediate Phases in Methylammonium-Free Sn-Pb Alloyed Perovskites for High-Performance Solar Cells (ARTICLE)**
Zhanfei Zhang, Jianghu Liang, Jianli Wang, Yiting Zheng, Xueyun Wu, Congcong Tian, Anxin Sun, Zhenhua Chen & Chun-Chao Chen
Nano-Micro Lett. 14, 165 (2022). <https://doi.org/10.1007/s40820-022-00918-1>
- 2. Recent Progress of Electrode Materials for Flexible Perovskite Solar Cells (REVIEW)**
Yumeng Xu, Zhenhua Lin, Wei Wei, Yue Hao, Shengzhong Liu, Jianyong Ouyang & Jingjing Chang
Nano-Micro Lett. 14, 117 (2022). <https://doi.org/10.1007/s40820-022-00859-9>
- 3. Surface Passivation and Energetic Modification Suppress Nonradiative Recombination in Perovskite Solar Cells (ARTICLE)**
Wei Dong, Wencheng Qiao, Shaobing Xiong, Jianming Yang, Xuelu Wang, Liming Ding, Yefeng Yao & Qinye Bao
Nano-Micro Lett. 14, 108 (2022). <https://doi.org/10.1007/s40820-022-00854-0>
- 4. Cellulose Nanopaper: Fabrication, Functionalization, and Applications (REVIEW)**
Wei Liu, Kun Liu, Haishun Du, Ting Zheng, Ning Zhang, Ting Xu, Bo Pang, Xinyu Zhang, Chuanling Si & Kai Zhang
Nano-Micro Lett. 14, 104 (2022). <https://doi.org/10.1007/s40820-022-00849-x>
- 5. Heterogeneous FASnI₃ Absorber with Enhanced Electric Field for High-Performance Lead-Free Perovskite Solar Cells (ARTICLE)**
Tianhao Wu, Xiao Liu, Xinhui Luo, Hiroshi Segawa, Guoqing Tong, Yiqiang Zhang, Luis K. Ono, Yabing Qi & Liyuan Han
Nano-Micro Lett. 14, 99 (2022). <https://doi.org/10.1007/s40820-022-00842-4>
- 6. Surface Treatment of Inorganic CsPbI₃ Nanocrystals with Guanidinium Iodide for Efficient Perovskite Light-Emitting Diodes with High Brightness (ARTICLE)**
Minh Tam Hoang, Amandeep Singh Pannu, Yang Yang, Sepideh Madani, Paul Shaw, Prashant Sonar, Tuquabo Tesfamichael & Hongxia Wang
Nano-Micro Lett. 14, 69 (2022). <https://doi.org/10.1007/s40820-022-00813-9>
- 7. High-Performance Blue Quasi-2D Perovskite Light-Emitting Diodes via Balanced Carrier Confinement and Transfer (ARTICLE)**
Zhenwei Ren, Jiayun Sun, Jiahao Yu, Xiangtian Xiao, Zhaojin Wang, Ruijia Zhang, Kai Wang, Rui Chen, Yu Chen & Wallace C. H. Choy
Nano-Micro Lett. 14, 66 (2022). <https://doi.org/10.1007/s40820-022-00807-7>
- 8. Cavity-Suppressing Electrode Integrated with Multi-Quantum Well Emitter: A Universal Approach Toward High-Performance Blue TADF Top Emission OLED (ARTICLE)**
Il Gyu Jang, Vignesh Murugadoss, Tae Hoon Park, Kyung Rock Son, Ho Jin Lee, WanQi Ren, Min Ji Yu & Tae Geun Kim
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9. **A Universal Atomic Substitution Conversion Strategy Towards Synthesis of Large-Size Ultrathin Nonlayered Two-Dimensional Materials (ARTICLE)**
Mei Zhao, Sijie Yang, Kenan Zhang, Lijie Zhang, Ping Chen, Sanjun Yang, Yang Zhao, Xiang Ding, Xiaotao Zu, Yuan Li, Yinghe Zhao, Liang Qiao and Tianyou Zhai
Nano-Micro Lett. 13, 165 (2021). <https://doi.org/10.1007/s40820-021-00692-6>
10. **Advances and Challenges in Two-Dimensional Organic–Inorganic Hybrid Perovskites Toward High-Performance Light-Emitting Diodes (REVIEW)**
Miao Ren, Sheng Cao, Jialong Zhao, Bingsuo Zou and Ruosheng Zeng
Nano-Micro Lett. 13, 163 (2021). <https://doi.org/10.1007/s40820-021-00685-5>
11. **Applications of 2D-Layered Palladium Diselenide and Its van der Waals Heterostructures in Electronics and Optoelectronics (REVIEW)**
Yanhao Wang, Jinbo Pang, Qilin Cheng, Lin Han, Yufen Li, Xue Meng, Bergoi Ibarlucea, Hongbin Zhao, Feng Yang, Haiyun Liu, Hong Liu, Weijia Zhou, Xiao Wang, Mark H. Rummeli, Yu Zhang and Gianaurelio Cuniberti
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12. **2D Nanomaterials for Effective Energy Scavenging (REVIEW)**
Md Al Mahadi Hasan, Yuanhao Wang, Chris R. Bowen and Ya Yang
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13. **Strain-Modulated Photoelectric Responses from a Flexible α -In₂Se₃/3R MoS₂ Heterojunction (ARTICLE)**
Weifan Cai, Jingyuan Wang, Yongmin He, Sheng Liu, Qihua Xiong, Zheng Liu and Qing Zhang
Nano-Micro Lett. 13, 74 (2021). <https://doi.org/10.1007/s40820-020-00584-1>
14. **Single-Layer ZnO Hollow Hemispheres Enable High-Performance Self-Powered Perovskite Photodetector for Optical Communication (ARTICLE)**
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15. **Room-Temperature Gas Sensors Under Photoactivation: From Metal Oxides to 2D Materials (REVIEW)**
Rahul Kumar, Xianghong Liu, Jun Zhang and Mahesh Kumar
Nano-Micro Lett. 12, 164 (2020). <https://doi.org/10.1007/s40820-020-00503-4>
16. **Self-Assembled Al Nanostructure/ZnO Quantum Dot Heterostructures for High Responsivity and Fast UV Photodetector (ARTICLE)**
Sisi Liu, Ming-Yu Li, Jianbing Zhang, Dong Su, Zhen Huang, Sundar Kunwar and Jihoon Lee
Nano-Micro Lett. 12, 114 (2020). <https://doi.org/10.1007/s40820-020-00455-9>
17. **Recent Advances in Strain-Induced Piezoelectric and Piezoresistive Effect-Engineered 2D Semiconductors for Adaptive Electronics and Optoelectronics (REVIEW)**
Feng Li, Tao Shen, Cong Wang, Yupeng Zhang, Junjie Qi and Han Zhang
Nano-Micro Lett. 12, 106 (2020). <https://doi.org/10.1007/s40820-020-00439-9>

- 18. Improved Photoresponse of UV Photodetectors by the Incorporation of Plasmonic Nanoparticles on GaN Through the Resonant Coupling of Localized Surface Plasmon Resonance (ARTICLE)**
Sundar Kunwar, Sanchaya Pandit, Jae-Hun Jeong and Jihoon Lee
Nano-Micro Lett. 12, 91 (2020). <https://doi.org/10.1007/s40820-020-00437-x>
- 19. Structure, Performance, and Application of BiFeO₃ Nanomaterials (REVIEW)**
Nan Wang, Xudong Luo, Lu Han, Zhiqiang Zhang, Renyun Zhang, Håkan Olin and Ya Yang
Nano-Micro Lett. 12, 81 (2020). <https://doi.org/10.1007/s40820-020-00420-6>
- 20. Perovskite-Inspired Lead-Free Ag₂BiI₅ for Self-Powered NIR-Blind Visible Light Photodetection (ARTICLE)**
Vincenzo Pecunia, Yue Yuan, Jing Zhao, Kai Xia, Yan Wang, Steffen Duhm, Luis Portilla and Fengzhu Li
Nano-Micro Lett. 12, 27 (2020). <https://doi.org/10.1007/s40820-020-0371-0>
- 21. Spatially Bandgap-Graded MoS_{2(1-x)}Se_{2x} Homojunctions for Self-Powered Visible–Near-Infrared Phototransistors (ARTICLE)**
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