

**徐钦峰 三级教授 光学工程博士，硕士生/博士生导师**

**山东省优秀青年基金，山东省优秀研究生导师**

E-mail: [xuqf5678@163.com](mailto:xuqf5678@163.com)

2010.6 博士 毕业于中科院上海光学精密机械研究所

2010.7- 至今 鲁东大学物理与光电工程学院

2011.12-2014.6 南京大学博士后



近年来主要从事半导体纳米材料的光学特性和微纳光子器件应用研究，主要包括量子点单光子源、量子点微纳激光器及高压下二维材料荧光特性研究。30多篇相关成果发表在ACS Nano, Nano Lett., Phys. Rev. Appl., Optics Lett., Optics Express, Applied Physics Lett., Advanced Optical Materials等国际权威期刊上，被SCI收录论文它引1400多次，个人引用H因子为16。

目前兼任Optics Express, Optics Letters, IEEE Photonics Technology Letters, Optics Communications, Chinese Optics letters等期刊的审稿人。

兼任自然科学基金委数学物理科学学部和信息学部通讯评审专家。

目前已培养毕业硕士研究生10人，其中8人在双一流大学继续攻读博士学位，另外2人分别任职于济南职业学校讲师和大连创锐光谱科技有限公司技术研发岗位。

### **主持科研项目及获奖情况**

主持和完成相关科研项目 10 项，2017 年获首位得山东省高等学校自然科学二等奖 1 项，获授权国家发明专利 8 项。

1. 国家自然科学基金面上项目 (2025-2028, 12474406 主持)
2. 烟台市自然科学基金重点项目 (2026-2028, ZR2025Z044 主持)
3. 山东省优秀青年基金项目 (2015-2017, ZR2015JL024 主持)
4. 国家自然科学基金青年项目 (2014-2016, 61307067 主持)
5. 山东省自然科学基金面上项目 (2023-2025, ZR2023MF118 主持)
6. 山东省自然科学基金面上项目 (2019-2021, ZR2019MF057 主持)
7. 中国博士后特别资助项目 (2014-2015, 2014T70500 主持)
8. 中国博士后面上资助项目 (2012-2014, 2012M511235 主持)
9. 山东省中青年科学家奖励基金项目 (2011-2014, BS2011DX005 主持)
10. 山东省高等学校科技计划项目 (2011-2014, J11LA11 主持)

## 代表性研究成果 -2026/4/16

1. Sijin Zhu(研究生), Chuanzhao Li, Qi zhang, Zhigang Li, Jing Han, Mengmeng Jiao, Chuanlu Yang, **Qinfeng Xu\***, Mechanistic Investigation of CsPbBr<sub>3</sub> Perovskite Nanoplatelets by Single-Particle Spectroscopic Measurements, Under Reviewing, 2026.
2. Guanjun Zhang(联合培养研究生), Zhaogang Nie\*, Mengmeng Jiao, Kai Wang, Chuanlu Yang, and **Qinfeng Xu\***, Enhanced violet fluorescent emission in zero-dimensional metal halides via pressure-regulated  $\pi$ - $\pi$  interaction, Under Reviewing, 2026.
3. Shibo Gao(研究生), Hang Luo, Sijin Zhu, Defang Duan, Mengmeng Jiao, Chuanlu Yang, Kai Wang and **Qinfeng Xu\***, Pressure-Induced Full Visible-Spectrum Color tuning in a Single Lead Halide Perovskite (FEA)<sub>2</sub>PbBr<sub>4</sub>, Under Reviewing, 2026.
4. Shibo Gao(研究生), Zhigang Li, Mengmeng Jiao, Kai Wang, Chuanlu Yang, and **Qinfeng Xu\***, Near-full-spectrum Tuning in Two Dimensional Copper Metal Halides via Pressure-regulated Dimer Distortion, Under Reviewing, 2026.
5. Wei Wang(研究生), Xuening Sun, Tieshan Yang, Mengmeng Jiao, Chuanlu Yang, Kai Wang, Defang Duan, **Qinfeng Xu\***, Pressure-induced enhancement of deep-blue photoluminescence in two-dimensional hybrid organic-inorganic perovskites, Physical Review Applied, 25, 044017, 2026. DOI: <https://doi.org/10.1103/4tlz-qhpm>.
6. Chunjie Xie(研究生), Sijin Zhu, Hongye Tang, Gencai Pan, Mengmeng Jiao, Jing Han, Chuanlu Yang, and **Qinfeng Xu\***, Pressure driven cross-relaxation for photoluminescence tuning in Er<sup>3+</sup>-doped Cs<sub>2</sub>NaYbCl<sub>6</sub> double perovskites. Optics Letters, 51(8), 2204-2207, 2026.
7. Zhiyuan Ma(研究生), Wei Wang, Mengmeng Jiao, Chuanlu Yang, Kai Wang, **Qinfeng Xu\***, Pressure-Induced Distinct Conformational Evolution of Organic Spacer Cations in 2D Perovskites, Advanced Optical Materials. 2026, e02003. <https://doi.org/10.1002/adom.202502003>.
8. Zhiyuan Ma(研究生), Chunjie Xie, Mengmeng Jiao, Chuanlu Yang, Kai Wang, **Qinfeng Xu\***, Tunable Multicolor Photoluminescence in Meta-Organic Halides via Pressure-Treatment  $\pi$ - $\pi$  Interactions, Journal of Materials Chemistry C, 14, 4783-4790, 2026.
9. Shibo Gao(研究生), Zhigang Li, Mengmeng Jiao, Chuanlu Yang, Kai Wang, Defang Duan, **Qinfeng Xu\***, Enhanced Cool White Light Emission in Organicinorganic Metal Halides through Pressure-Treated Molecular Configurations Regulation, Journal of Materials Chemistry A, 2026. DOI: <https://doi.org/10.1039/D5TA10428A>.
10. Wei Wang(研究生), Hang Luo, Tieshan Yang, Mengmeng Jiao, Shufang Zhang, Zhigang Li, Chuanlu Yang, Kai Wang, Qinfeng Xu\*, Enhanced upconversion luminescence of UCNPs@CsPbI<sub>3</sub> nanocomposites via constructing multiple energy transfer channels, Optics Letters, 49(24), 7202-7205, 2024.

11. Hang Luo(研究生), Wei Wang, Tengfei Wu, Mengmeng Jiao, Chuanlu Yang, Kai Wang, **Qinfeng Xu\***, Pressure-induced tunable luminescence of Mn dimers in Mn-based metal halides  $(C_6H_9N_2)_2MnBr_4$ , *Applied Physics Letters*, 125(25), 224305, 2024.
12. Wei Wang(研究生), Hang Luo, Tieshan Yang, Mengmeng Jiao, Shufang Zhang, Zhigang Li, Chuanlu Yang, Kai Wang, **Qinfeng Xu\***, Pressure induced ultra-widely tunable and ultrapure photoluminescence in 2D perovskites via fluorination of organic cations, *Chemistry of Materials*, 36, 9594-9602, 2024.
13. Wenting Liu(研究生), Tieshan Yang, Kunjian Cao, Jing Han, Mengmeng Jiao, Shufang Zhang, Chuanlu Yang, **Qinfeng Xu\***, High-efficiency upconversion luminescence in UCNPs/CsPbBr<sub>3</sub> nanocomposites enhanced by silver nanoparticles, *Optics Letters*, 49(5), 1141-1144, 2024.
14. Yongsheng Gao(研究生), Yanlin Xu, Tieshan Yang, Honggang Wang, Haifeng Mu, Xiaoming Tan, Chuanlu Yang, Kai Wang, Zhigang Li, **Qinfeng Xu\***, Efficient FRET process between CsPbBr<sub>3</sub> quantum dots and RhB dye molecules by pressure regulation, *Appl. Phys. Lett.* 123, 212102, 2023.
15. Qingya Wang(研究生), Huafeng Ding, Tieshan Yang, **Qinfeng Xu\***, Haifeng Mu, Taiping Lu, Mengmeng Jiao, Jie Zhang, kunjian cao, zhigang li, Honggang Wang, Shufang Zhang, Kai Wang, Chuanlu Yang, Pressure-induced distinct excitonic properties of 2D perovskites with isomeric organic molecules for spacer cations, *Nanoscale*, 15, 6234-6242, 2023.
16. Mingxing Li(研究生), Wenting Liu, Tieshan Yang, **Qinfeng Xu\***, Haifeng Mu, Jing Han, Kunjian Cao, Xiaoming Tan, Kai Wang, Chuanlu Yang, Synergistic luminescence effect and high-pressure optical properties of CsPbBr<sub>2</sub>Cl@EuMOFs nanocomposites, *Optics Express*, 31(13), 21576-21585, 2023.
17. Mingxing Li(研究生), Wenting Liu, Tieshan Yang, **Qinfeng Xu\***, Haifeng Mu, Jing Han, Kunjian Cao, Mengmeng Jiao, Mingliang Liu, Shufang Zhang, Xiaoming Tan, Chuanlu Yang, Multi-color UCNPs/CsPbBr<sub>3-x</sub>I<sub>x</sub> for upconversion luminescence and dual modal anticounterfeiting, *Optics Express*, 31(2), 2958-2968, 2023.
18. Qingya Wang(研究生), Qilin Qin, Yuhan Chen, Tieshan Yang, **Qinfeng Xu\***, Haifeng Mu, Jing Han, Kunjian Cao, Mengmeng Jiao, Mingliang Liu, Shufang Zhang, Chuanlu Yang, STED microscopy reveals in-situ photoluminescence properties of single nanostructures in densely perovskite thin films, *Optics Express*, 29(24), 40051-40060, 2021.
19. Huafeng Ding(研究生), Yansu Shan, Jizhou Wang, **Qinfeng Xu\***, Jing Han, Mengmeng Jiao, Kunjian Cao, Mingliang Liu, Haifeng Mu, Shufang Zhang and Chuanlu Yang, Revealing photoluminescence mechanisms of single CsPbBr<sub>3</sub>/Cs<sub>4</sub>PbBr<sub>6</sub> core/shell perovskite nanocrystals, *RSC Adv.*, 11, 30465, 2021.
20. Yanqiang Hu, Yansu Shan(研究生), Zhaolei Yu, Haojie Sui, Ting Qiu, Shufang Zhang\*, Wei Ruan, **Qinfeng Xu\***, Mengmeng Jiao, Dehua Wang, Yunyi Wu, Chuanlu Yang, Feng

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  22. Jie Zhang\*, Mingxing Li, Dehua Wang, Binhua Chu, Shufang Zhang, **Qinfeng Xu\***, Kai Wang, Room temperature synthesis and pressure-induced optical properties of lead-free 2D Cs<sub>3</sub>Bi<sub>2</sub>I<sub>6</sub>Cl<sub>3</sub> perovskite nanocrystals, *J. Mater. Chem. A*, 11, 19427-19434, 2023.
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  30. Jing Han, **Qinfeng Xu**, Jiannong Chen, Linwei Zhu, Zhigang Li, Reconstruction of an underwater scattered image via incoherent modulation instability, *Optics Letters*, 44(3), 695-698, 2019.
  31. Ping Li, Yong Zhou, Zongyan Zhao, **Qinfeng Xu**, Xiaoyong Wang, Min Xiao, et al, Hexahedron Prism-Anchored Octahedron CeO<sub>2</sub>: Crystal Facet Based Homo Junction Promoting Efficient Solar Fuel Synthesis, *J. Am. Chem. Soc.* 2015, 137, 9547-9550.

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