徐钦峰 教授 光学工程博士，硕士生导师

山东省优秀青年基金获得者

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2010.6 博士 毕业于中科院上海光学精密机械研究所

2011.12-2014.6 南京大学博士后

2010.7- 至今 鲁东大学物理与光电工程学院

主要研究方向

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., Optics Lett., Optics Express, Applied Physics Lett., Sensors and Actuators B-Chemical等国际期刊上，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, Journal of alloys and compounds, IEEE Photonics Technology Letters, Optics Communications, Chinese Optics letters等期刊的审稿人。

主持科研项目及获奖情况

主持和完成相关科研项目 9 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. 山东省优秀青年基金（2015-2017, ZR2015JL024 主持）
2. 国家自然基金青年项目（2014-2016, 61307067 主持）
3. 山东省自然基金面上项目（2023-2025，ZR2023MF118 主持）
4. 山东省自然基金面上项目（2019-2021, ZR2019MF057 主持）
5. 中国博士后特别资助项目（2014-2015, 2014T70500 主持）
6. 中国博士后面上二等资助项目（2012-2014, 2012M511235 主持）
7. 山东省中青年科学家奖励基金项目（2011-2014, BS2011DX005 主持）
8. 山东省高等学校科技计划项目（2011-2014, J11LA11 主持）
9. 山东省高等学校科技计划项目（2018-2020, J18KA222，主持）

10、山东省高等学校科学技术奖二等奖,证书编号：2017BK20058，成果名称：半导体纳米材料体系的荧光特性研究，获奖人：**徐钦峰**，王德华，刘明良，谭晓明，张杰。

近年来代表性研究成果（截止-2024.3.20）

1. Wenting Liu(研究生), Haifeng Mu, Xiaoming Tan, and Chuanlu Yang, **Qinfeng Xu***, Mechanistic investigation of $CsPbBr_3$ perovskite nanoplatelets by single-Particle spectroscopic measurements, Under Reviewing, 2024.
2. 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, Under reviewing, 2024.
3. Hang Luo(研究生), Wei Wang, Tieshan Yang, Mengmeng Jiao, Shufang Zhang, Kai Wang and Chuanlu Yang, **Qinfeng Xu***, Pressure driven distinct conformational evolution of organic cation in 2D mixed halide perovskites, Under reviewing, 2024.
4. 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/$CsPbBr_3$ nanocomposites enhanced by silver nanoparticles, Optics Letters, 49(5), 1141-1144, 2024.
5. 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 $CsPbBr_3$ quantum dots and RhB dye molecules by pressure regulation, Appl. Phys. Lett. 123, 212102, 2023.
6. 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.
7. 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 $CsPbBr_2Cl$@EuMOFs nanocomposites, Optics Express, 31(13), 21576-21585, 2023.
8. 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/CsPbBr3−xIx for upconversion luminescence and dual modal anticounterfeiting, Optics Express, 31(2), 2958-2968, 2023.
9. 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.

10. 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 Xu, Incorporation of aminobutyric acid and cesium cations to formamidinium lead halide perovskites for highly efficient solar cells, Journal of Energy Chemistry, 64, 561-567, 2022.
11. Jie Zhang*, Aifei Wang, Dehua Wang, **Qinfeng Xu***, Shufang Zhang, Mingliang Li, Mengmeng Jiao, Low-temperature synthesis of stable blue Cesium lead bromide perovskite nanoplates with high quantum efficiency for display applications, Ceramics International, 48, 19132-19140, 2022.
12. 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 Cs3Bi2I6Cl3 perovskite nanocrystals, J. Mater. Chem. A, 11, 19427-19434, 2023.
13. **Qinfeng Xu**, Zheng Hua, Qi Zhou, Xiaoyong Wang, Huizhen Wu, Chunfeng Zhang, Linxiao Du, and Min Xiao, Extended storage of multiple excitons in the trap states of semiconductor nanocrystals, Appl. Phys. Lett. 108(9), 093110, 2016.
14. Fengrui Hu, Zengle Cao, Zheng Hua, **Qinfeng Xu**, Ming Zheng, Chunfeng Zhang, Xiaoyong Wang, and Min Xiao, Auger-assisted ultrafast fluorescence measurement of semiconductor single-walled carbon nanotubes, ACS Photonics, 3, 1415-1420, 2016.
15. **Qinfeng Xu**, Carlo Piermarocchi, Yuriy V. Pershin, G. J. Salamo, Min Xiao, Xiaoyong Wang, and Chih-Kang Shih, Giant Up-conversion efficiency of InGaAs quantum dots in a planar microcavity, Scientific Reports, 4(3953), 2014.
16. **Qinfeng Xu**, Qi Zhou, Zheng Hua, Qi Xue, Chunfeng Zhang, Xiaoyong Wang, Dengyu Pan, and Min Xiao, Single-particle spectroscopic measurements of fluorescent graphene quantum dots, ACS Nano, 7(12), 10654-10661, 2013.
17. Xiangnan Huang, **Qinfeng Xu**, Chunfeng Zhang, Xiaoyong Wang, and Min Xiao, Energy transfer of biexcitons in a single semiconductor nanocrystal, Nano Letters, 16(4), 2492-2496, 2016.
18. Zheng Hua, **Qinfeng Xu**, Chunfeng Zhang, Xiaoyong Wang, and Min Xiao, Energy transfer from a single semiconductor nanocrystal to Dye Molecules, ACS Nano, 8(7), 7060-7066, 2014.
19. Jing Han, **Qinfeng Xu**, Jiannong Chen, Linwei Zhu, Nonlinear super-resolution imaging via orientationally enhanced photorefractive effect in polymer, Optics Letters, 46(10), 2441-2444, 2021.
20. 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.

21. Ping Li, Yong Zhou, Zongyan Zhao, **Qinfeng Xu**, Xiaoyong Wang, Min Xiao, et al, Hexahedron Prism-Anchored Octahedronal CeO2: Crystal Facet Based Homojunction Promoting Efficient Solar Fuel Synthesis, J. Am. Chem. Soc. 2015, 137, 9547−9550.

22. Haijin Li, Yuying Gao, Yong Zhou, Fengtao Fan, Qiutong Han, **Qinfeng Xu**, Xiaoyong Wang, Min Xiao, Can Li, Zhigang Zou*, Construction and nanoscale detection of interfacial charge transfer of elegant Z-scheme WO_3/Au/In_2S_3 nanowire arrays, Nano Letters, 16(9): 5547–5552, 2016.

23. Jiannong Chen, **Qinfeng Xu***, Superlong uniform light tunnel created by focusing radially polarized vortex beam，Journal of Applied Physics, 124, 043103, 2018.

24. Jiannong Chen, **Qinfeng Xu***, Jing Han, Polarization-selective holographic metasurface for creating cylindrical vector beams, IEEE Photonics Journal, 11(4), 2800109, 2019.

25. Jiannong Chen, Chenglong Zhao, Dawei Zhang, Bo Dai, Linwei Zhu, Qinfeng Xu*, Generation of a ring-shaped focusing spot with precisely controllable position and diameter, Journal of the Optical Society of America B, 35(5), 981-992, 2018.

26. **Qinfeng Xu**, Jiannong Chen, The creation of double light focus by a concentric multi-blet pure phase filter, Optics Communications, 285(7), 1642–1645, 2012.

27. **Qinfeng Xu**, Qing Ye, Qiong Liu, Aiping Luo, Ronghui Qu, Zujie Fang, High repetition-rate pulse generation for millimeter-wave pulse signal by two cascaded Gires-Tournois interferometers, Optics Communcications, 283(11), 2339-2343, 2010.

28. **Qinfeng Xu**, Qing Ye, Zhengqing Pan, Zujie Fang, Haiwen Cai, Ronghui Qu, Generation of millimeter-wave sub-carrier optical pulse by using cascaded all-pass cavities, Chinese Optics Letters, 8(1), 7-10, 2010.

29. **Qinfeng Xu**, Qing Ye, Ronghui Qu, Zujie Fang, Influence of thermal effect on multi-junction GaInP/GaAs/Ge concentrating photovoltaic system, Chinese Optics Letters, 8(4), 354-356, 2010.

30. **Qinfeng Xu**, Qing Ye, Ronghui Qu, et al, Determination..in bio-gasoline by a fiber optical raman sensor, Sensors and Actuators B: Chemical, 146(1), 75-78, 2010.