



徐赛

教授

博士生导师

xusai@dlnu.edu.cn

教育背景及 工作经历

2006.09-2010.06 吉林大学，生物医学工程，工学学士
2010.09-2015.06 吉林大学，物理电子学，工学博士(硕博连读)
2015.08-2017.12 大连海事大学，物理系，讲师
2017.12-2023.07 大连海事大学，理学院，副教授
2018.09-2019.09 美国加州大学河滨分校，化学系，访问学者
2023.07 至今 大连海事大学，理学院，教授

研究领域

稀土纳米光转换材料的光学性质及应用研究

代表性成果

目前为止，已发表 SCI 论文 120 余篇，其中第一作者/通讯作者论文 26 篇，代表性论文如下：

(1) J. L. Chang, Y. C. Wang, Y. Li, Y. F. Gao*, H. Q. Yu, Y. Z. Cao, X. Z. Zhang, B. J. Chen, S. Xu*, Regulating A-Site Alloying of Te⁴⁺-Doped Hafnium-Halide Perovskite for Fluorescence Thermometry Achieving Breakthrough Sensitivity at High Temperatures, *Laser Photonics Rev.*, 2024, 2401620.

(2) B. Liu, Y. Li, S. Xu*, J. L. Chang, Y. F. Gao, H. Q. Yu, Y. C. Wang, and B. J. Chen*, Simultaneous Improvement and Tailoring Upconversion and Downshift Luminescence of Cs₂NaErCl₆ via Yb³⁺ Alloying for Versatile Photoelectric Applications, *ACS Appl. Mater. Inter.*, 2025,

10.1021/acsami.5c01548.

- (3) J. L. Chang, **S. Xu***, Y. F. Gao, Y. Li, Y. C. Wang,* H. Q. Yu, Y. Z. Cao, X. Z. Zhang, and B. J. Chen*, Excitation Wavelength Regulated Dynamic Luminescence in Bi/Sb co-Doped Tin Halide for Encrypted Information Transmission and High-Sensitivity Wavelength Sensor, *Adv. Mater. Technol.*, 2024, 2401672
- (4) Y. Li, **S. Xu***, Q. Zhang, Y. F. Gao, X. Z. Zhang, Y. Z. Cao, H. Q. Yu, X. P. Li, B. J. Chen*, Excitation wavelength-dependent multi-emission in $\text{Sb}^{3+}/\text{Bi}^{3+}/\text{Er}^{3+}$ codoped perovskite toward optical anti-counterfeiting and information storage, *J. Alloy. Comp.*, 2023, 940, 168925
- (5) R. X. Song, **S. Xu***, Y. Li, Y. F. Gao, H. Q. Yu, Y. Z. Cao, X. Z. Zhang, B. J. Chen*, Designing multi-mode optical thermometers via $\text{Sb}^{3+}/\text{Er}^{3+}$ co-doped $\text{Cs}_2\text{NaInCl}_6$ lead-free double perovskite microcrystals, *J. Alloy. Comp.*, 2023, 961, 171126
- (6) M. H. Jiang, **S. Xu***, Y. Yu, Y. F. Gao, Z. Yin, J. Li, X. Z. Zhang, H. Q. Yu, B. J. Chen*, Turn-on fluorescence ferrous ions detection based on MnO_2 nanosheets modified upconversion nanoparticles, *Spectrochim. Acta A*, 2022, 264, 12075
- (7) Y. Yu, **S. Xu***, Y. F. Gao, M. H. Jiang, X. P. Li, J. S. Zhang, X. Z. Zhang, B. J. Chen*, Enhanced photothermal conversion performances with ultra-broad plasmon absorption of Au in $\text{Au}/\text{Sm}_2\text{O}_3$ composites, *J. Am. Ceram. Soc.*, 2020, 103, 4420
- (8) Y. F. Gao, X. X. Pan*, **S. Xu***, Z. J. Liu, J. S. Wang, K. Z. Yu, C. F. Wang, H. C. Yuan, S. Wu, Fluorescence-enhanced microfluidic sensor for highly sensitive in-situ detection of copper ions in lubricating oil, *Mater. Design.*, 2020, 191, 108693
- (9) Y. Yu, **S. Xu***, Y. F. Gao, M. H. Jiang, J. S. Zhang, X. P. Li, X. Z. Zhang, B. J. Chen*, Multiple logic operations based on chemically triggered upconversion fluorescence switching, *Spectrochim. Acta A*, 2020, 230, 118047
- (10) **S. Xu**, Y. Yu, Y. F. Gao*, Zhang, X, Z.; X. P. Li, J. S. Zhang, Y. F. Wang, B. J. Chen*, Mesoporous silica coating $\text{NaYF}_4:\text{Yb},\text{Er}/\text{NaYF}_4$ upconversion nanoparticles loaded with ruthenium(II) complex nanoparticles: Fluorometric sensing and cellular imaging of temperature by upconversion and of oxygen by downconversion, *Microchim. Acta*, 2018, 185, 454
- (11) Y. Q. Zhang, B. J. Chen*, **S. Xu***, X. P. Li, J. S. Zhang, J. S. Sun, X. Q. Zhang, H. P. Xia, R. N. Hua, A universal approach for calculating the

Judd-Ofelt parameters of RE^{3+} in powdered phosphors and its application for the $\beta\text{-NaYF}_4\text{:Er}^{3+}/\text{Yb}^{3+}$ phosphor derived from auto-combustion-assisted fluoridation, *Phys.Chem.Chem.Phys.*, 2018, 20, 15876

(12) Y. Q. Zhang, S. Xu*, X. P. Li, J. S. Zhang, J. S. Sun, L. L. Tong, H. Zhong, H. P. Xia, R. N. Hua*, B. J. Chen, Improved LRET-based detection characters of Cu^{2+} using sandwich structured $\text{NaYF}_4@\text{NaYF}_4\text{:Er}^{3+}/\text{Yb}^{3+}@\text{NaYF}_4$ nanoparticles as energy donor, *Sensors and Actuators B*, 2018, 257, 829

(13) S. Xu*, S. Y. Xiang, Y. Q. Zhang, J. S. Zhang, X. P. Li, J. S. Sun, L. H. Cheng, B. J. Chen*, 808 nm laser induced photothermal effect on $\text{Sm}^{3+}/\text{Nd}^{3+}$ doped $\text{NaY}(\text{WO}_4)_2$ microstructures, *Sensors and Actuators B*, 2017, 240, 386

授权发明者专利:

- (1) 一种固态上转换荧光探针及其制备方法与应用, 发明人: 徐赛, 陈宝玖, 高跃峰, 李香萍, 张金苏, 专利号: ZL 201710429175.8, 授权时间: 2020.11
- (2) 一种稀土离子掺杂无铅双钙钛矿纳米荧光探针的制备方法及应用, 发明人: 徐赛, 宋睿昕, 陈宝玖, 高跃峰, 专利号: ZL 202210557194.X, 授权时间: 2023.04

代表性项目

- (1) 国家自然科学基金面上项目, 基于荧光编码磁控微流控芯片的船舶压载水多重细菌同时检测研究, 主持。
- (2) 国家自然科学基金青年项目, 基于局域场增强稀土上转换荧光探针的肿瘤标志物可视化检测研究, 主持。
- (3) 中国博士后科学基金特别资助, 高灵敏度上转换荧光微阵列探针在肺癌早期诊断中的应用, 主持。
- (4) 辽宁省自然科学基金项目, 基于多色荧光微流控装置的船舶压载水中细菌检测研究, 主持。
- (5) 中国博士后科学基金面上资助, 增强型固态上转换荧光探针的制备及生物检测应用研究, 主持。

荣誉奖励

- (1)辽宁省“百千万人才工程”万人层次
- (2)辽宁省优秀硕士学位论文指导教师
- (3)大连市青年科技之星
- (4)大连市高层次人才青年才俊
- (5)大连海事大学优秀研究生导师
- (6)大连海事大学“星海工程”教师第三层次

社会兼职

- (1)《Nanomaterials》 Guest Editor
- (2)《光子学报》青年编委
- (3)《发光学报》青年编委

其他

