



徐赛

副教授

硕士生导师

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#### 教育背景及 工作经历

2006.09–2010.06 吉林大学，生物医学工程专业，工学学士  
2010.09–2015.06 吉林大学，物理电子学，工学博士  
2015.08–2017.12 大连海事大学，物理系，讲师  
2018.01 至今 大连海事大学，理学院，副教授/硕士生导师  
2018.09–2019.09 美国加州大学河滨分校，化学系，访问学者

#### 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

论文类：

- (1) Turn-on fluorescence ferrous ions detection based on  $\text{MnO}_2$  nanosheets modified upconversion nanoparticles, *Spectrochim. Acta A*, 2022, 264, 12075 (SCI)
- (2) Enhanced photothermal conversion performances with ultra-broad plasmon absorption of Au in Au/ $\text{Sm}_2\text{O}_3$  composites, *J. Am. Ceram. Soc.*, 2020, 103, 4420 (SCI)
- (3) Fluorescence-enhanced microfluidic sensor for highly sensitive in-situ

detection of copper ions in lubricating oil, *Mater. Design.*, 2020, 191, 108693 (SCI)

(4) Multiple logic operations based on chemically triggered upconversion fluorescence switching, *Spectrochim. Acta A*, 2020, 230, 118047 (SCI)

(5) Mesoporous silica coating NaYF<sub>4</sub>:Yb,Er@NaYF<sub>4</sub> 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 (SCI)

(6) A universal approach for calculating the Judd-Ofelt parameters of RE<sup>3+</sup> in powdered phosphors and its application for the β-NaYF<sub>4</sub>:Er<sup>3+</sup>/Yb<sup>3+</sup> phosphor derived from auto-combustion-assisted fluoridation, *Phys.Chem.Chem.Phys.*, 2018, 20, 15876 (SCI)

(7) Improved LRET-based detection characters of Cu<sup>2+</sup> using sandwich structured NaYF<sub>4</sub>@NaYF<sub>4</sub>:Er<sup>3+</sup>/Yb<sup>3+</sup>@NaYF<sub>4</sub> nanoparticles as energy donor, *Sensors and Actuators B*, 2018, 257, 829 (SCI)

(8) Concentration quenching of blue upconversion luminescence in Tm<sup>3+</sup>/Yb<sup>3+</sup> co-doped Gd<sub>2</sub>(WO<sub>4</sub>)<sub>3</sub> phosphors under 980 and 808 nm excitation, *J. Alloy. Compd.* 2017, 709, 147 (SCI)

(9) 808 nm laser induced photothermal effect on Sm<sup>3+</sup>/Nd<sup>3+</sup> doped NaY(WO<sub>4</sub>)<sub>2</sub> microstructures, *Sensors and Actuators B*, 2017, 240, 386 (SCI)

(10) Paper-based upconversion fluorescence resonance energy transfer biosensor for sensitive detection of multiple cancer biomarkers, *Sci. Rep.*, 2016, 6, 23406 (SCI)

#### 代表性项目

(1) 国家自然科学基金面上项目, 52071048, 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, 2020/01-2024/12, 主持。

(2) 国家自然科学基金青年项目, 11704056, 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, 2018/01-2020/12, 主持。

(3) 中国博士后科学基金特别资助, 2018T110212, 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, 2018/06-2020/12, 主持。

(4) 辽宁省自然科学基金项目, 2019MS029, 基于多色荧光微流控装置

的船舶压载水中细菌检测研究, 2019/10-2021/9, 主持。

(5) 中国博士后科学基金面上资助, 2016M591420, 增强型固态上转换  
荧光探针的制备及生物检测应用研究, 2016/06-2018/12, 主持。

### 荣誉奖励

- (1) 辽宁省“百千万人才工程”万层次
- (2) 大连市青年科技之星

### 其他

