

药学院（葡萄酒学院）教师个人情况登记表



杜凯敏

医用化学，教授

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个人简介：

杜凯敏，女，教授。主要从事多功能稀土发光材料的可控合成、荧光传感体系的构建和稀土纳米复合平台的搭建及生物学应用。近五年在国际权威期刊发表 SCI 论文 30 余篇，其中以独立第一作者发表 SCI 论文 7 篇，包括 *Advanced Functional Materials*, *Light: Science & Applications*, *Advanced Optical Materials* 等国际期刊，累计影响因子约 80 分；主持中国博士后科学基金面上资助项目，参与国际伙伴计划-对外合作重点项目、中科院前沿科学重点研究项目、国家自然科学基金面上项目、吉林省自然科学基金面上项目等。

学习经历：

2015 年 09 月至 2020 年 11 月，中国科学技术大学，无机化学，博士研究生

2011 年 09 月至 2015 年 06 月，聊城大学，化学，本科

工作经历：

2023 年 09 月至今 滨州医学院，药学院，教授

2021 年 03 月至 2023 年 07 月 中科院大连化物所，博士后

主讲课程:

1. 《医用化学》(本科 必修课)
2. 《医用化学实验》(本科 必修课)

研究方向:

1. 肿瘤微环境响应的新型纳米复合平台的构建及肿瘤诊疗
2. 稀土发光材料的构建及传感检测

科研项目:

1. 主持中国博士后科学基金面上资助项目, 新型 pH 触发的介孔中空纳米平台用于级联化疗/化学动力学协同癌症诊疗 (2021M703139)
2. 参与国际伙伴计划-对外合作 重点项目, 金属离子均匀调控稀土上转换纳米晶的晶体场和发光机理研究 (121522KYSB20190022)
3. 参与中科院前沿科学重点研究项目, 新型稀土发光材料的结构调控与性能的科学基础及应用 (YZDY-SSW-JSC018)
4. 参与国家自然科学基金, 面上项目, 稀土发光纳米晶表面原位构建金属硫族化合物用于多模式成像和光热治疗 (21871248)
5. 参与吉林省自然科学基金资助项目, 新型多元金属硫族成像-光热纳米诊疗剂的设计合成与抗肿瘤活性研究, (20180101172JC)

代表性论文及专利:

1. **Kaimin Du**, Jing Feng*, Xuan Gao, Hongjie Zhang*, Nanocomposites based on lanthanide-doped upconversion nanoparticles: diverse designs and applications. *Light: Science & Applications*, 2022, 11, 222.
2. **Kaimin Du**, Lingjun He, Shuyan Song, Jing Feng*, Yao Li, Manli Zhang, Huwei Li, Chengyu Li, Hongjie Zhang*, In-situ embedding synthesis of highly stable CsPbBr₃/CsPb₂Br₅@PbBr(OH) nano/microspheres through water assisted strategy, *Advanced Functional Materials*, 2021, 31,

2103275.

3. **Kaimin Du**, Manli Zhang, Yao Li, Huwei Li, Kai Liu, Chengyu Li, Jing Feng*, Hongjie Zhang*, Embellishment of upconversion nanoparticles with ultrasmall CsPbX₃ quantum dots for full-color tunable, dual-modal luminescence anti-counterfeiting, *Advanced Optical Materials*, 2021, 9, 2100814.

4. **Kaimin Du**, Pengpeng Lei, Lile Dong, Manli Zhang, Xuan Gao, Shuang Yao, Jing Feng*, Hongjie Zhang*, In situ decorating of ultrasmall Ag₂Se on upconversion nanoparticles as novel nanotheranostic agent for multimodal imaging-guided cancer photothermal therapy, *Applied Materials Today*, 2020, 18, 100497.

5. **Kaimin Du**, Pengpeng Lei, Manli Zhang, Xuan Gao, Shuang Yao, Chengyu Li, Jing Feng*, Hongjie Zhang*, Decoration of upconversion nanocrystals with metal sulfide quantum dots by a universal in situ controlled growth strategy, *Nanoscale*, 2020, 12, 3977-3987.

6. **Kaimin Du**, Shuang Zhao, Jing Feng*, Kai Liu, Xiaozhen Wang*, Xuan Gao, Manli Zhang, Yao Li, Yu Lu, Hongjie Zhang*, Engineering Cu_{2-x}S-conjugated upconverting nanocomposites for NIR-II light-induced enhanced chemodynamic/photothermal therapy of cancer, *Journal of Materials Chemistry B*, 2021, 9, 4065-4067.

7. **Kaimin Du**, Xia Xu, Shuang Yao, Pengpeng Lei, Lile Dong, Manli Zhang, Jing Feng*, Hongjie Zhang*, Enhanced upconversion luminescence and controllable phase/shape of NaYF₄:Yb/Er crystals through Cu²⁺ ion doping, *CrystEngComm*, 2018, 20, 1945-1953.

8. Yao Li, **Kaimin Du**, Manli Zhang, Xuan Gao, Yu Lu, Shuang Yao, Chengyu Li, Jing Feng*, Hongjie Zhang*, Tunable ultra-uniform Cs₄PbBr₆

perovskites with efficient photoluminescence and excellent stability for high-performance white light-emitting diodes, *Journal of Materials Chemistry C*, 2021, 9, 12811.

9. Xuan Gao, Peng Zhang, **Kaimin Du**, Manli Zhang, Ding Wen, Yu Lu, Jing Feng*, Hongjie Zhang*, Near-Infrared-Light-Responsive Copper Oxide Nanoparticles as Efficient Theranostic Nanoagents for Photothermal Tumor Ablation, *ACS Applied Bio Material*, 2021, 4, 6, 5266.10.

10. Manli Zhang, Yao Li, **Kaimin Du**, Xuan Gao, Yu Lu, Ding Wen, Shuang Yao, Jing Feng*, Hongjie Zhang*, One-step conversion of CsPbBr₃ into Cs₄PbBr₆/CsPbBr₃@Ta₂O₅ core-shell microcrystals with enhanced stability and photoluminescence, *Journal of Materials Chemistry C*, 2021, 9, 1228.

11. Xia Xu, Xuesong Zhai, **Kaimin Du**, Pengpeng Lei, Lile Dong, Ruiping Deng, Jing Feng, Hongjie Zhang, The size-responsive phase transition mechanism and upconversion/downshifting luminescence properties of KLu₂F₇:Yb³⁺/Er³⁺ nanocrystals, *Journal of Materials Chemistry C*, 2017,5, 6311-6318.

12. Xuan Gao, Jing Feng*, Shuyan Song, Kai Liu, **Kaimin Du**, Yifei Zhou, Kehong Lv, Hongjie Zhang*, Tumor-targeted biocatalyst with self-accelerated cascade reactions for enhanced synergistic starvation and photodynamic therapy, *Nano Today*, 2022, 43,101433.

荣誉获奖:

1. 中国科学院三好学生
2. 山东省师范类优秀毕业生
3. 国家奖学金

社会兼职:

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