


## 基本信息

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职务		
职称	教授	
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## 教育背景

1997.09-2003.03	西北大学，分析化学专业，理学博士
1984.09-1987.07	陕西师范大学，分析化学专业，理学硕士
1980.09-1984.07	陕西师范大学，化学专业，理学学士

## 工作履历

2005.04-至今	北京理工大学化学与化工学院，教授
1987.07-2005.04	陕西师范大学化学系，讲师、副教授、教授
2005.12-2006.03	日本筑波产业技术综合研究所(AIST)，氟化学研究室，特聘研究员
2008.05-2009.05	美国佛罗里达大学，化学系，访问教授

## 研究方向

1.	分子/纳米探针设计与构筑
2.	分子识别与化学生物传感

## 荣誉奖励

1.	走科教协同之路，育拔尖创新人才，北京理工大学优秀教育教学成果奖一等奖（2019.12），第一完成人
2.	环境友好五元环含氟材料催化合成技术及产业化，国家技术发明奖二等奖，中华人民共和国国务院，2017. 张小玲（4/6）

3.	环境友好系列含氟电子气体的催化制造技术开发及应用，陕西省科学技术奖，技术发明奖，一等奖，陕西省人民政府，2018，张小玲（5/11）
4.	新一代 c-C5 含氟化合物制造及过程催化剂技术的开发与应用研究，陕西省科学技术奖，技术发明奖，一等奖，陕西省人民政府，2016. 张小玲（3/11）
5.	零臭氧损耗环境友好型氟化物的制造及过程催化剂技术的开发和应用，北京市科学技术发明奖，二等奖，北京市人民政府，2014，张小玲（2/8）
6.	某些杂环偶氮类化合物与金属离子显色反应的研究，陕西省科技进步奖，二等奖，陕西省人民政府，1989，第三完成人
7.	新型杂环偶氮类试剂的合成及其光度极谱性能的研究，陕西省科技进步奖，二等奖，陕西省人民政府，1995，第四完成人
8.	分析化学课程建设，陕西省高校教学成果二等奖，陕西省人民政府，1997，第四完成人

### 承担项目

1.	可逆型近红外氧化还原荧光探针的合成及生物应用，国家自然科学基金面上项目（21575015），2016-01 至 2019-12，65 万元，主持
2.	近红外分子/纳米荧光探针制备及其在肿瘤分子成像分析中的应用研究，国家自然科学基金面上项目（21275018），2013-01 至 2016-12，80 万元，主持
3.	信号肽介导亚细胞区域靶位近红外 Ca <sup>2+</sup> 荧光纳米传感器的研究，国家自然科学基金面上项目（20975012），2010-01 至 2012-12，30 万元，主持
4.	新型含能材料热分解机理的理论计算研究，兵器 204 所，2020. 1-2021. 12，20 万，主持人

### 研究成果

主要从事新型光学探针及化学生物传感、含氟化合物研究工作。主编或参编出版教材 5 部，获省部级教学成果二等奖 1 项。主持国家自然科学基金及其他项目多项，在 *Angew. Chem*、*Anal Chem*、*Chem. Commun.*、*Biosensors and Bioelectronics*、*JMC B*、*Sensors & Actuators: B. Chem* 等期刊发表学术论文 180 余篇，以主要完成人获国家技术发明二等奖 1 项，省部级科技成果一等奖 2 项、二等奖 3 项。

1.	分子识别与化学生物传感：分子/纳米探针的设计合成；生物医学成像分析及诊疗一体化。基于小分子或纳米材料，设计构建新型分子/纳米探针，实现从细胞到小动物模型中重要生物活性分子、肿瘤微环境的高时空分辨可视化分析及诊疗一体化研究
2.	氟化工：针对臭氧层空洞和全球变暖等目前人类面临的两大环境问

	题，寻找不破坏臭氧层、温室效应低、应用性能好的环境友好型含氟化合物，开发产业化前景的合成路线。
<b>代表性论文</b>	
1.	Zang, Tienan; Xie, Yachen; Su, Sa; Liu, Feiran; Chen, Qianqian; Jing, Jing; Zhang, Rubo*; Niu, Guangle*; Zhang, Xiaoling*; In Vitro Light-Up Visualization of a Subunit-Specific Enzyme by an AIE Probe via Restriction of Single Molecular Motion, <i>Angewandte Chemie International Edition</i> , 2020, 59(25):10003-10007.
2.	Shu Wei; Zang Shunping; Wang Chong; Gao Mengxu; Jing Jing*; Zhang Xiaoling*; An Endoplasmic Reticulum-Targeted Ratiometric Fluorescent Probe for the Sensing of Hydrogen Sulfide in Living Cells and Zebrafish, <i>Analytical Chemistry</i> , 2020, 92(14): 9982-9988.
3.	Cui Jie; Zang Shunping; Shu Wei; Nie Hailiang*; Jing Jing*; Zhang Xiaoling*; Highly Sensitive and Selective Detection of Heparin in Serum Based on a Long-Wavelength Tetraphenylethylene–Cyanopyridine Aggregation-Induced Emission Luminogen, <i>Analytical Chemistry</i> , 2020, 92(10): 7106-7113.
4.	Nie Longxue; Gao Congcong; Shen Tianjiao; Jing Jing*; Zhang Shaowen*; Zhang Xiaoling*; Dual-Site Fluorescent Probe to Monitor Intracellular Nitroxyl and GSH-GSSG Oscillations, <i>Analytical Chemistry</i> , 2019, 91(7): 4451-4456.
5.	Gao, Congcong, Tian, Yong; Zhang, Ru-Bo; Jing, Jing; Zhang, Xiaoling, Endoplasmic reticulum directed ratiometric fluorescent probe for quantitatively detection of basal H <sub>2</sub> O <sub>2</sub> , <i>Analytical Chemistry</i> , 2017, 89, 12945–12950
6.	Mengqi Yang, Xiaoling Zhang*, Haipeng Liu, Huaizhi Kang*, Zhi Zhu, Wen Yang, Weihong Tan*, Stable DNA Nanomachine Based on Duplex–Triplex Transition for Ratiometric Imaging Instantaneous pH Changes in Living Cells, <i>Analytical Chemistry</i> . 2015, 87(12), 5854–5859
7.	Liu Yazhou; Jing Jing; Jia Fei; Su Sa; Tian Yong; Gao Na; Yang Chunlei; Zhang Rubo*; Wang Weizhi*; Zhang Xiaoling*; Tumor Microenvironment-Responsive Theranostic Nanoplatfor for in Situ Self-Boosting Combined Phototherapy through Intracellular Reassembly, <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12(6): 6966-6977.
8.	Hailiang Nie, Jing Jing, Yong Tian, Wen Yang, Robu Zhang* and Xiaoling Zhang*, Reversible and dynamic fluorescence imaging of cellular redox self-regulation using fast-responsive near-infrared Ge-pyronines. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8 (14), 8991–8997.
9.	Yunqian Gong, Bin Yu, Wen Yang* and Xiaoling Zhang*, Phosphorus, and nitrogen co-doped carbon dots as a fluorescent probe for real-time measurement of reactive oxygen and nitrogen species inside macrophages, <i>Biosensors and Bioelectronics</i> , 2016, 79, 822–828.

10.	Na Gao, Wen Yang*, Hailiang Nie, Yunqian Gong, Jing Jing, Loujun Gao* and Xiaoling Zhang*, Turn-on Theranostic Fluorescent Nanoprobe by Electrostatic Self-Assembly of Carbon Dots with Doxorubicin for Targeted Cancer Cell Imaging, In Vivo Hyaluronidase Analysis, and Targeted Drug Delivery, Biosensors and Bioelectronics, 2017, 96, 300–307.
11.	Fangyun Xin, Yuhuan Li, Changkui Fu, Ibrahim Javed, Xumin Huang, Anaïs Schaschkow, Rita S. Garcia Ribeiro, Esteban N. Gurzov, Thomas P. Davis, Xiaoling Zhang,* Pu Chun Ke,* and Ruirui Qiao*. Multimodal Nanoprobe for Pancreatic Beta Cell Detection and Amyloidosis Mitigation. Chemistry of Materials, 2020, 32, 1080-1088.
12.	Yazhou Liu; Tianjiao Shen; Congcong Gao; H. A. Abdulhadi El-Ali; Na Gao; Chunlei Yang; Rubo Zhang*; Jing Jing*; Xiaoling Zhang*, A Multi-crosslinking Nanocapsule-based Serial-Stimuli-Responsive Leakage Free Drug Delivery System in Vitro, Chemistry - A European Journal, 2019, 25, 13017-13024.
13.	Chaoyuan Zeng, Xiaoling Zhang*, Lin Pu*, Enantioselective Fluorescent Imaging of Free Amino Acids in Living Cells, Chemistry - A European Journal, 2017, 23 (10) : 2131-2138.
14.	Wei Shu, Yulong Wu, Shunping Zang, Sa Su, Hao Kang, Jing Jing*, Xiaoling Zhang*, A mitochondria-targeting highly specific fluorescent probe for fast sensing of endogenous peroxynitrite in living cells, Sensors & Actuators: B. Chemical, 2019, DOI: 10.1016/j.snb.2019.127284.
15.	Junwei Shi, Yong Tian, Bingpeng Guo, Yulong Wu, Jing Jing*, Rubo Zhang*, Xiaoling Zhang*, An AIEgen-based fluorescent probe for highly selective and specific imaging of lipid droplets in L02 and HepG2 cells, Sensors & Actuators: B. Chemical, 2019, 284: 545-552
16.	Yong Tian, Baocun Zhu, Wen Yang, JingJing*, and XiaolingZhang*, A fluorescent probe for differentiating Cys, Hcy and GSH via a stepwise interaction, Sensors & Actuators: B. Chemical, 2018, 262: 345-349
17.	Bingpeng Guo, Xiuzhe Pan, Yifan Liu, Longxue Nie, Hengzhi Zhao, Yazhou Liu, Jing Jing* and Xiaoling Zhang*, A reversible water-soluble naphthalimide-based chemosensor for imaging of cellular copper(II) ion and cysteine, Sensors & Actuators: B. Chemical, 2018, 256: 632-638.
18.	Bingpeng Guo, Hailiang Nie, Wen Yang, Yong Tian, Jing Jing* and Xiaoling Zhang*, A highly sensitive and fast responsive fluorescent probe for imaging intracellular hypochlorite with a large Stokes shift, Sensors & Actuators: B. Chemical, 2016, 236: 459-465.
19.	Dan Lei, WenYang*, Yunqian Gong, Hailiang Nie, Bin Yu, and, Xiaoling Zhang*, Non-covalent decoration of carbon dots with folic acid via a polymer-assisted strategy for fast and targeted cancer cell fluorescence imaging, Sensors & Actuators: B. Chemical, 2016, 230, 714–720.
20.	Caiyun Liu, Huifang Wu, Zuokai Wang, Changxiang Shao, Baocun Zhu*

	and Xiaoling Zhang*, A fast-response, highly sensitive and selective fluorescent probe for the ratiometric imaging of nitroxyl in living cells, Chem. Commun., 2014, 50,6013-6016.
21.	Baocun Zhu, Chenchen Gao, Yunzhou Zhao, Caiyun Liu, Yamin Li, Qin Wei, Zhenmin Ma, Bin Du* and Xiaoling Zhang*, A 4-hydroxynaphthalimide-derived ratiometric fluorescent chemodosimeter for imaging palladium in living cells, Chem. Commun., 2011, 47, 8656–8658.
22.	Baocun Zhu, Fang Yuan, Rongxia Li, Yamin Li, Qin Wei, Zhenmin Ma*, Bin Du,* and Xiaoling Zhang*, A highly selective colorimetric and ratiometric fluorescent chemodosimeter for imaging fluoride ion in living cells, Chem. Commun., 2011, 47: 7098-7100.
23.	Baocun Zhu, Xiaoling Zhang*, Yamin Li, Pengfei Wang,* Hongyan Zhang, and Xiaoqing Zhuang, A colorimetric and ratiometric fluorescent probe for thiols and its bioimaging applications, Chem. Commun., 2010, 46, 5710 - 5712.
24.	Hailiang Nie, Liang Qiao, Wen Yang, Bingpeng Guo, Fangyun Xin, Jing Jing* and Xiaoling Zhang*,UV-Assisted Synthesis of Long-wavelength Si-Pyronine Fluorescent Dyes for Real-time and Dynamic Imaging of Glutathione Fluctuation in Living Cells, Journal of Materials Chemistry B, 2016, 4, 4826 – 4831.
25.	Bingpeng Guo, Jing Jing, Longxue Nie, Fangyun Xin, Congcong Gao, Wen Yang * and Xiaoling Zhang*, A lysosome-targetable versatile fluorescent probe for imaging viscosity and peroxynitrite with different fluorescence signals in living cells, Journal of Materials Chemistry B, 2018, 6, 580-585. ESI 高被引