

2025 年度中国分析测试协会分析测试科学奖 公示材料

一、项目名称

仿生催化界面的构建及其分析应用基础研究

二、申报奖种及等级

中国分析测试协会分析测试科学奖，二等奖

三、主要完成人和完成单位

主要完成人：朱党强（青岛农业大学）、葛磊（青岛农业大学）、黄宝美（绵阳师范学院）、谷成成（青岛农业大学）、盖盼盼（青岛农业大学）、李峰（青岛农业大学）

完成单位：青岛农业大学（申报单位）、绵阳师范学院（参加单位）

四、代表性论文专著目录

(1) Chengcheng Gu, Jianlin Liu, Ting Hou, Wenchao Zheng, Panpan Gai*, Feng Li, Portable Self-Powered/Colorimetric Dual-Mode Sensing Platform Based on Multifunctional Bioconjugates for Precise On-Site Detection of Acetamiprid, *Analytical Chemistry*, 2025, 97, 928.

(2) Cui Wang, Yuqing Wang, Junhua Liu, Feng Li*, Panpan Gai*, Nanozyme-Based Biofuel Cell Ingeniously Coupled with Luminol CL System through In Situ Co-Reactant Generation for Dual-Signal Biosensing, *Analytical Chemistry*, 2023, 95, 15763.

(3) Hongjie Qi, Zhixin Wang, Haiyin Li*, Feng Li*, Directionally In-Situ Self-Assembled Iridium (III)-Polyimine Complex-Encapsulated

Metal-Organic Framework 2D Nanosheet Electrode to Boost Electrochemiluminescence Sensing, *Analytical Chemistry*, 2023, 95, 12024.

(4) Panpan Gai, Li Pu, Cui Wang, Dangqiang Zhu*, Feng Li*, CeO₂@NC Nanozyme with Robust Dephosphorylation Ability of Phosphotriester: A Simple Colorimetric Assay for Rapid and Selective Detection of Paraoxon, *Biosensors and Bioelectronics*, 2023, 220, 114841.

(5) Mengli Zhang, Yongqi Wang, Na Li, Dangqiang Zhu*, Feng Li*, Specific Detection of Fungicide Thiophanate-Methyl: A Smartphone Colorimetric Sensor Based on Target-Regulated Oxidase-like Activity of Copper-Doped Carbon Nanozyme, *Biosensors and Bioelectronics*, 2023, 237, 115554.

(6) Dangqiang Zhu, Na Li, Mengli Zhang, Yuqing Wang, Feng Li*, Ting Hou*, Hydrolysis Enabled Specific Colorimetric Assay of Carbosulfan with Sensitivity Manipulation via Metal-Doped or Metal-Free Carbon Nanozyme, *Biosensors and Bioelectronics*, 2024, 243, 115786.

(7) Dejie Ma, Na Li, Dangqiang Zhu*, Feng Li*, Heterocyclic Effect Boosted Peroxidase-like Activity of MIL(Fe) Metal-Organic Framework for Colorimetric Assay and Dye Removal, *Journal of Hazardous Materials*, 2024, 480, 136148.

(8) Zhiliang Feng, Zekun Geng, Shuzhen Pan, Yaru Yin, Xinzhi Sun, Xiaojuan Liu, Lei Ge*, Feng Li*, In Situ Patterning of Nickel/Sulfur-Codoped Laser-Induced Graphene Electrode for Selective Electrocatalytic Valorization of Glycerol, *Applied Catalysis B: Environment*

and Energy, 2024, 353, 124101.

(9) Zekun Geng, Zhiliang Feng, Haoran Kong, Jiaqi Su, Kaiyan Zhang, Jiabin Li, Xinzhi Sun, Xiaojuan Liu, Lei Ge*, Panpan Gai*, Feng Li*, Ruthenium Anchored Laser-Induced Graphene as Binder-Free and Free-Standing Electrode for Selective Electrosynthesis of Ammonia from Nitrate, *Advanced Science*, 2024, 11, 2406843.

(10) Bin Wang, Meng Song, Wenjie Yu, Jie Tang, Liang Huang, Hongjun Chen, Jiyuan Gan, Xianting Yuan, Ying Zhang, Baomei Huang*, Construction of Porous Chitosan-Based Organic/Inorganic Composite with Synergistic Antibacterial Activity, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 2024, 685, 133208.

五、专利目录

(1) 朱党强, 盖盼盼, 李娜, 李峰, 一种 Cu(I)-N-C 纳米酶、制备方法及其在甲基硫菌灵检测中的应用, ZL 2023 1 0042117.5, 国家发明专利, 授权公告日: 2024.08.13