



所属学院 化学与分子工程学院

学科领域 分析化学

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个人简介

教授，博士生导师。第十一、十二届、十三届全国政协委员（科技界），享受政府特殊津贴。现任华东理工大学金山科技园管委会主任；上海市功能性材料化学重点实验室主任；兼任上海市纳米科技首席科学家、上海市产业技术研究院首席专家。主要研究领域为：纳米生物技术、生物传感器、以及天然产物化学及分离分析新方法，强调多学科交叉，开展基础创新及应用研究。至今承担国家自然科学基金项目、国家科技攻关、科技部国际合作专项项目以及省部级项目 20 多项。发表 SCI 收录论文 200 多篇，申请专利 30 多项，主编和参与编写专著 3 部。

研究方向

纳米生物技术；电化学传感器；天然产物化学及分离分析新方法

研究成果及主要发表文章

- 1) Kaicha Chen, Hongli Zhao, Zhenxing Wang, Qianmei Gao, Fangfang Zhou, Minbo Lan*. One-pot synthesis of platinum-copper pyramid alloy catalyst with multiple branches for the electrochemical detection of circulating tumor DNA. *Sensors & Actuators: B. Chemical* 2022, 351, 130948.
- 2) Zhenxing Wang, Hongli Zhao, Gao, Qianmei Gao, Kaicha Chen, Minbo Lan*. Facile synthesis of ultrathin two-dimensional graphene-like CeO₂-TiO₂ mesoporous nanosheet loaded with Ag nanoparticles for non-enzymatic electrochemical detection of superoxide anions in HepG2 cells. *Biosensors & Bioelectronics*. 2021, 184: 113236.
- 3) Chenlu Pu, Hongli Zhao, Yayun Hong, Zhenxing Wang, Yu Zheng, Minbo Lan*. Hierarchical dendritic mesoporous TiO₂ nanocomposites for highly selective enrichment of endogenous phosphopeptides. *ACS Sustain. Chem. Eng.*, 2021, 9(17):5818-5826 (Inside Cover)
- 4) Sheng Qianying; Wang Cunli; Li Xiaopei; Qin Hongqiang; Ye Mingliang; Xiong Yuting; Wang Xue; Li Xiuling; Lan Minbo*; Li Junyan; Ke Yanxiong; Qing Guangyan*; Liang Xinmiao. Highly Efficient Separation of Methylated Peptides Utilizing Selective Complexation between Lysine and 18-Crown-6. *Analytical Chemistry*, 2021, 92:15663-15670
- 5) Chenlu Pu, Hongli Zhao, Yayun Hong, Qiliang Zhan, Minbo Lan*. Facile Preparation of Hydrophilic Mesoporous Metal-Organic Framework via Synergistic Etching and Surface Functionalization for Glycopeptides Analysis. *Analytical Chemistry*, 2020, 92, 1940-1947
- 6) Xuan Cai, Huilan Chen, Zhenxing Wang, Wenqian Sun, Libo Shi, Hongli Zhao, Minbo Lan* 3D graphene-based foam induced by phytic acid: An effective enzyme-mimic catalyst for electrochemical detection of cell-released superoxide anion. *Biosensors & Bioelectronics*, 2019, 123: 101-107
- 7) Yingxin Chen, Qianying Sheng, Yayun Hong, Minbo Lan*. Hydrophilic Nanocomposite Functionalized by Carrageenan for the Specific Enrichment of Glycopeptides, *Analytical Chemistry*, 2019, 91: 4047-4054
- 8) Xuan Cai, Libo Shi, Wenqian Sun, Hongli Zhao, Hong Li, Haiyan He, Minbo Lan*. A facile way to fabricate manganese phosphate self-assembled carbon networks as efficient electrochemical catalysts for real-time monitoring of superoxide anions released from HepG2 cells. *Biosensors and Bioelectronics* 2018, 102: 171-178
- 9) Yayun Hong, Yating Yao, Hongli Zhao, Qianying Sheng, Mingliang Ye, Chengzhong Yu,* and Minbo Lan*. Dendritic Mesoporous Silica Nanoparticles with Abundant Ti⁴⁺ for Phosphopeptide Enrichment from Cancer Cells with 96% Specificity. *Analytical Chemistry*, 2018, 90: 7617-7625
- 10) Yayun Hong, Hongli Zhao, Chenlu Pu, Qiliang Zhan, Qianying Sheng, and Minbo Lan*. Hydrophilic Phytic Acid-Coated Magnetic Graphene for Titanium(IV) Immobilization as a Novel Hydrophilic Interaction Liquid Chromatography-Immobilized Metal Affinity Chromatography Platform for Glyco- and Phosphopeptide Enrichment with Controllable Selectivity. *Analytical Chemistry* 2018, 90: 11008-11015