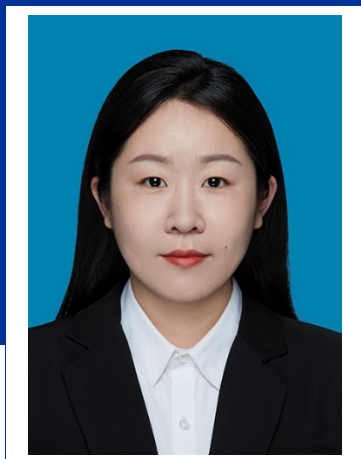


药学院（葡萄酒学院）教师个人情况登记表



蔡园园

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个人简介：

蔡园园，女，校聘教授。研究方向为纳米酶的调控合成、机理及其在药物分析、生物传感上的应用研究。参与国家重点研发计划 1 项、国家自然科学基金面上项目 1 项。先后以一作或共一在 Analytical Chemistry、Journal of Hazardous Materials、Biosensors and Bioelectronics、Sensors & Actuators: B. Chemical、Analytica Chimica Acta、Chemical communications 等国际期刊上发表 SCI 论文 12 篇，其中中科院分区一区论文 8 篇，授权中国发明专利 3 项。

学习经历：

2019 年 09 月至 2023 年 06 月，青 岛 大 学，药物分析，博士研究生
2016 年 09 月至 2019 年 06 月，曲阜师范大学，分析化学，硕士研究生
2012 年 09 月至 2016 年 06 月，曲阜师范大学，化 学，本 科

工作经历：

2023 年 09 月至今 滨州医学院，药学院，校聘教授

主讲课程:

1. 《医用化学实验》(本科 实验课)

研究方向:

1. 纳米酶的调控合成、机理研究
2. 纳米酶在药物分析、生物传感上的应用研究

科研项目:

1. 参与国家重点研发计划“合成生物学”重点专项课题,“关键酶元件的挖掘改造与电催化机制解析”(2021YFA09104001)。
2. 参与国家自然科学基金面上项目,“靶向磁性纳米仿酶多功能探针的构建及其食源性致病菌检测新方法研究”(81673172)。

代表性论文及专利:

1. **Yuanyuan Cai**, Tao Dong, Xin Zhang, Aihua Liu*, Morphology and enzyme-mimicking activity of copper nanoassemblies regulated by peptide: mechanism, ultrasensitive assaying of trypsin and screening of trypsin inhibitor, *Analytical Chemistry*, 2022, 94, 18099–18106. (SCI 一区, IF:8.008)
2. **Yuanyuan Cai**, Lingxi Niu, Xuan Liu, Yujiao Zhang, Zongmei Zheng, Lingxing Zeng, Aihua Liu*, Hierarchical porous MoS₂ particles: excellent multi-enzyme-like activities, mechanism and its sensitive phenol sensing based on inhibition of sulfite oxidase mimics, *Journal of Hazardous Materials*, 425 (2022) 128053. (SCI 一区, IF: 14.224)
3. **Yuanyuan Cai**, Mingyang Wang, Xinxin Xiao, Bo Liang, Shuqin Fan, Zongmei Zheng, Serge Cosnier, Aihua Liu*, A membraneless starch/O₂ biofuel cell based on bacterial surface regulable displayed sequential enzymes of glucoamylase and glucose dehydrogenase, *Biosensors and*

Bioelectronics, 207 (2022) 114197. (SCI —区, IF:12.545)

4. Lingxi Niu¹, **Yuanyuan Cai**¹, Tao Dong¹, Yujiao Zhang, Xuxin Liu, Xin Zhang, Lingxing Zeng, Aihua Liu*, Vanadium nitride@carbon nanofiber composite: Synthesis, cascade enzyme mimics and its sensitive and selective colorimetric sensing of superoxide anion, Biosensors and Bioelectronics, 210 (2022) 114285. (SCI —区, IF: 12.545)

5. **Yuanyuan Cai**, Jin Wang, Aihua Liu*, Bimetallic copper-cerium nanoclusters: Assembly-induced aggregation into nanowire network and cysteine-triggered strong red fluorescence turn-on for highly sensitive and selective cysteine sensing, Sensors & Actuators: B. Chemical, 356 (2022) 131356. (SCI —区, IF:9.221)

6. **Yuanyuan Cai**, Chongyang Liu, Jin Wang, Xuan Liu, Yujiao Zhang, Shuqing Yang, Lingxi Niu, Lingxing Zeng, Aihua Liu*, CuxO nanorods with excellent regenerable NADH peroxidase mimics and its application for selective and sensitive fluorimetric ethanol sensing, Analytica Chimica Acta, 1186 (2021) 339126. (SCI —区, IF:6.911)

7. **Yuanyuan Cai**, Jin Wang, Lingxi Niu, Yujiao Zhang, Xuan Liu, Chongyang Liu, Shuqiang Yang, Huan Qi*, Aihua Liu*, Selective colorimetric sensing of sub-nanomolar Hg(2+) based on its significantly enhancing peroxidase mimics of silver/copper nanoclusters, Analyst, 146(2021) 4630-4635. (SCI 二区, IF:5.227)

8. **Yuanyuan Cai**, Yue Hua, Mengyuan Yin, Huan Liu, Shuai Li, Fengxiang Wang, Hua Wang*, Fabrication of test strips with gold-silver nanospheres and metal-organic frameworks: A fluorimetric method for sensing trace cysteine in hela cells, Sensors & Actuators: B. Chemical, 302(2020) 127198. (SCI —区, IF:9.221)

9. **Yuanyuan Cai**, Jin Wang, Chongyang Liu, Shuqing Yang, Yujiao Zhang, Aihua Liu*, Histidine-triggered turning-on of gold/copper nanocluster fluorescence for the sensitive and selective detection of histidine, *Chemical communications*, 2020,56,78, 11637-11640. (SCI 二区, IF:6.065)
10. **Yuanyuan Cai**, Fengxiang Wang, Yue Hua, Huan Liu, Mengyuan Yin, Chunxian Zhang, Yun Zhang and Hua Wang*, A fluorimetric testing strip for the visual evaluation of mercury in blood using copper nanoclusters with DMSO-enhanced fluorescence and stability, *Nanoscale*, 12(2020) 24079-24084. (SCI 二区, IF:8.307)
11. **Yuanyuan Cai**, Yao Jiang, Luping Feng, Yue Hua, Huan Liu, Chuan Fan, Mengyuan Yin, Shuai Li, Xiaoxia Lv, Hua Wang*, Q-graphene-scaffolded covalent organic frameworks as fluorescent probes and sorbents for the fluorimetry and removal of copper ions, *Analytica Chimica Acta*, 1057(2019) 88-97. (SCI 一区, IF:6.911)
12. **Yuanyuan Cai**, Luping Feng, Yue Hua, Huan Liu, Mengyuan Yin, Xiaoxia Lv, Shuai Li and Hua Wang*, Q-graphene-loaded metal organic framework nanocomposites with water-triggered fluorescence turn-on: Fluorimetric test strips for directly sensing trace water in organic solvents, *Chemical communications*, 54(2018) 13595-13598. (SCI 二区, IF:6.065)
13. 刘爱骅、**蔡园园**。2023 年。一种金/铜双金属纳米团簇荧光探针及其制备方法和组氨酸检测应用。专利号: ZL 2020 1 0143047.9
14. 王桦、**蔡园园**、华玥、刘欢、陈丽君、吕晓霞、李帅。2020 年。一种有机试剂中微量水分析荧光试纸条的制备方法与应用。专利号: 2018112814475
15. 王桦、**蔡园园**、姜耀、龙大成、华玥、刘欢、冯路平。2020 年。一种可注射止血水凝胶材料及制备方法和应用。专利号: ZL 2017 1 0812876.X

荣誉获奖:

1.荣获“山东省高等学校省级优秀学生”。