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专 业：分析化学

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简 介：甘甜，女，博士，教授，博士生导师，河南省优青，河南省教育厅学术技术带头人，河南省高校科技创新人才，河南省文明教师，河南省优秀硕士学位论文指导教师，信阳市优秀青年科技专家，入选南湖学者奖励计划 A 类人才。

个人经历

教育经历：

2002.9–2006.6	学士	信阳师范学院	化学化工学院	化学
2006.9–2008.6	硕士	华中科技大学	化学与化工学院	分析化学
2008.9–2011.6	博士	武汉大学	化学与分子科学学院	分析化学

工作简历：

2011.7–2014.11	信阳师范学院化学化工学院	讲师
2014.12–2019.11	信阳师范学院化学化工学院	副教授
2019.12–至今	信阳师范学院化学化工学院	教授

研究领域与兴趣

1. 高灵敏度新型生物/化学传感器的研究及应用
2. 无机纳米材料的可控合成
3. 食品品质与环境安全快速检测新技术

主讲课程

本科生：《分离分析技术》、《仪器分析实验》

研究生：《现代电分析化学》

主持科研项目

1. 国家自然科学基金, 22176162, 环境水体中痕量新兴污染物的协同印迹识别与多元即时分析, 2022/01–2025/12, 主持
2. 国家自然科学基金, 61201091, 石墨烯功能纳米材料及其在食品安全传感器中的应用研究,

2013/01–2015/12, 主持

3. 河南省自然科学基金优秀青年科学基金项目, 232300421085, 纸电化学生物传感芯片的构建及应用研究, 2023/01–2025/12, 主持
4. 河南省高等学校重点科研项目计划基础研究专项, 26ZX025, 类固醇雌激素在土壤-植物系统中迁移及动态残留的追踪分析研究, 2026/01–2028/12, 主持
5. 河南省高校科技创新人才支持计划, 16HASTIT003, 纳米电分析化学, 2016/01–2017/12, 主持
6. 河南省自然科学基金面上项目, 182300410037, 基于功能化 MOFs@MIP 仿生识别与催化增敏的痕量农兽药残留快速现场检测新方法研究, 2018/01–2020/12, 主持
7. 河南省科技计划项目, 152102210341, 基于贵金属基核壳型多功能纳米材料调控信号转换的电化学传感器构筑及食品安全研究, 2015/08–2017/8, 主持
8. 河南省科技计划项目, 182102310689, 仿生分子印迹催化剂的设计合成及食品安全实时快速检测技术研究, 2018/03–2020/3, 主持

代表性研究成果

期刊论文:

1. Junyong Sun, Jing Zhou, Shuyan Miao, Like Chen, Yanhong Zeng, **Tian Gan***, Design of laser-induced graphene-based electrochemical sensing platforms for residue analysis of nitrofurans in aquaculture environment, *Journal of Hazardous Materials* 499 (2025) 140081.
2. Xin Zhang, Shuyan Miao, Jing Zhou, Tingting Zhou, **Tian Gan***, Yong Tang, Paper-based molecularly imprinted electrochemical sensor integrated with Pt single atom decorated porous hollow carbon polyhedrons for enhanced phenolic pollutants monitoring in wastewaters, *Sensors and Actuators B–Chemical* 445 (2025) 138592.
3. Xin Zhang, Shuyan Miao, Wenjie Song, Xian Liu, Can Wu, **Tian Gan***, Preparation of W-N-C single atom catalyst and Cu₃(HHTP)₂ metal-organic framework dual-decorated graphene nanoplatelet flexible electrode arrays for the rapid detection of carbendazim in vegetables, *Food Chemistry* 459 (2024) 140338.
4. Junyong Sun, Like Chen, Xin Zhang, Xian Liu, Can Wu, **Tian Gan***, Monitoring of trace aquatic sulfonamides through hollow zinc-nitrogen-carbon electrocatalysts anchored on MXene architectures, *Food Chemistry* 424 (2023) 136410.
5. Xian Liu, Like Chen, Yang Yang, Liping Xu, Junyong Sun, **Tian Gan***, MXene-reinforced octahedral PtCu nanocages with boosted electrocatalytic performance towards endocrine

- disrupting pollutants sensing, *Journal of Hazardous Materials* 442 (2023) 130000.
6. Xian Liu, Like Chen, Yibo Gao, Jiebin Li, Junyong Sun, **Tian Gan***, Molecularly imprinted polymer capped Au@HKUST-1 nanocapsules-based electrochemical sensing platform for monitoring isoproturon herbicide in water at sub-nanomole level, *Journal of Environmental Chemical Engineering* 10 (2022) 107661.
7. Lijun Zhang, Xian Liu, Luyu Luo, Cong Hu, Jianwei Fu, Xueping Chang, **Tian Gan***, A high-performance voltammetric methodology for the ultra-sensitive detection of riboflavin in food matrices based on graphene oxide-covered hollow MnO₂ spheres, *Food Chemistry* 352 (2021) 129368.
8. Junyong Sun, Liping Xu, Zhaoxia Shi, Qianqian Zhao, Haibo Wang, **Tian Gan***, Morphology-tunable hollow Mn₂O₃ nanostructures: highly efficient electrocatalysts and their electrochemical sensing for phenolic endocrine disruptors via toughening of graphene oxide, *Sensors and Actuators B-Chemical* 327 (2021) 128889.
9. Liping Xu, Jiebin Li, Jiajia Zhang, Junyong Sun, **Tian Gan***, Yanming Liu, A disposable molecularly imprinted electrochemical sensor for the ultra-trace detection of the organophosphorus insecticide phosalone employing monodisperse Pt-doped UiO-66 for signal amplification, *Analyst* 145 (2020) 3245–3256.
10. **Tian Gan***, Jiebin Li, Hanxiao Li, Yangxiao Liu, Zhihong Xu, Synthesis of Au nanorod-embedded and graphene oxide-wrapped microporous ZIF-8 with high electrocatalytic activity for the sensing of pesticides, *Nanoscale* 11 (2019) 7839–7849.
11. **Tian Gan***, Zhikai Wang, Zhaoxia Shi, Dongyun Zheng, Junyong Sun, Yanming Liu, Graphene oxide reinforced core-shell structured Ag@Cu₂O with tunable hierarchical morphologies and their morphology-dependent electrocatalytic properties for bio-sensing applications, *Biosensors and Bioelectronics* 112 (2018) 23-30.
12. **Tian Gan***, Zhikai Wang, Yan Wang, Xiangyu Li, Junyong Sun, Yanming Liu, Flexible graphene oxide-wrapped SnO₂ hollow spheres with high electrochemical sensing performance in simultaneous determination of 4-aminophenol and 4-chlorophenol, *Electrochimica Acta* 250 (2017) 1-9.
13. **Tian Gan***, Zhen Lv, Junyong Sun, Zhaoxia Shi, Yanming Liu, Preparation of graphene oxide-wrapped carbon sphere@silver spheres for high performance chlorinated phenols sensor, *Journal of Hazardous Materials* 302 (2016) 188-197.

14. **Tian Gan***, Aixia Zhao, Shuhui Wang, Zhen Lv, Junyong Sun, Hierarchical triple-shelled porous hollow zinc oxide spheres wrapped in graphene oxide as efficient sensor material for simultaneous electrochemical determination of synthetic antioxidants in vegetable oil, *Sensors and Actuators B-Chemical* 235 (2016) 707-716.
15. Junyong Sun, **Tian Gan***, Ya-ping Deng, Zhao-xia Shi, Zhen Lv, Pt nanoparticles-functionalized hierarchically porous γ -Al₂O₃ hollow spheres based electrochemical sensor for ultrasensitive guaiacol detection, *Sensors and Actuators B-Chemical* 211 (2015) 339-345.
16. **Tian Gan***, Zhaoxia Shi, Junyong Sun, Yanming Liu, Simple and novel electrochemical sensor for the determination of tetracycline based on iron/zinc cations-exchanged montmorillonite catalyst, *Talanta* 121 (2014) 187-193.
17. **Tian Gan***, Junyong Sun, Kejing Huang, Li Song, Youmei Li, A graphene oxide-mesoporous MnO₂ nanocomposite modified glassy carbon electrode as a novel and efficient voltammetric sensor for simultaneous determination of hydroquinone and catechol, *Sensors and Actuators B-Chemical* 177 (2013) 412-418.
18. **Tian Gan***, Junyong Sun, Shuqin Cao, Fuxing Gao, Yuxia Zhang, Yingqin Yang, One-step electrochemical approach for the preparation of graphene wrapped-phosphotungstic acid hybrid and its application for simultaneous determination of sunset yellow and tartrazine, *Electrochimica Acta* 74 (2012) 151-157.
19. **Tian Gan**, Chengguo Hu, Zilin Chen, Shengshui Hu*, Direct electrochemical determination of methyl jasmonate in wheat spike let at a nano-montmorillonite film modified electrode by derivative square wave voltammetry, *Journal of Agricultural and Food Chemistry* 58 (2010) 8942-8947.

专利技术:

1. 国家发明专利, 食品防腐剂电化学传感器及其制备方法与应用, 专利号: ZL201510113829.7, 第一发明人
2. 国家发明专利, 痕量快速检测对羟基苯甲酸丁酯的电化学传感器及其制备方法, 专利号: ZL201510679180.5, 第一发明人
3. 国家发明专利, 痕量快速检测间苯三酚的电化学传感器及其制备方法与应用, 专利号: ZL201610002417.0, 第一发明人

4. 国家发明专利，一种痕量快速检测灭蝇胺的分子印迹电化学传感器及其制备方法与应用，专利号：ZL201611031452.1，第一发明人
5. 国家发明专利，一种用于高灵敏检测壬基酚的化学修饰电极及其制备方法，专利号：ZL201710644246.6，第一发明人

奖励及荣誉

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