赵国 个人简历

<table>
<tr><td>姓　名</td><td>赵国</td><td>性　别</td><td>男</td><td rowspan="4">  </td></tr>
<tr><td>学　位</td><td>博士（硕导）</td><td>职　称</td><td>副教授</td></tr>
<tr><td>部　门
（系别）</td><td>人工智能学院
自动化系</td><td>E-mail</td><td>zhaoguo@njau.edu.cn</td></tr>
<tr><td>通信地址</td><td colspan="3">南京市浦口区点将台路 40 号</td></tr>
<tr><td>个人简介</td><td colspan="4">● 教育经历：
2009.09-2013.06 山东理工大学 农业机械化及其自动化 学士
2013.09-2015.06 山东理工大学 农业工程 硕士
2015.09-2020.01 中国农业大学 农业电气化与自动化 博士
● 工作经历
2017.09-2019.09 美国加州大学河滨分校 化学与环境工程学院 联合培养
2020.01-2020.08 南京农业大学 工学院 副教授
2020.08-至今 南京农业大学 人工智能学院 副教授</td></tr>
<tr><td>研究领域</td><td colspan="4">(1) 纳米传感材料合成及柔性微纳传感器件制备
(2) 农业智能传感器、检测技术及智能装备
(3) 面向传感器的新型储能器件及应用</td></tr>
<tr><td>教授课程</td><td colspan="4">传感器与检测技术；科学创新方法与实践；智能传感技术（研究生）</td></tr>
<tr><td>承担项目</td><td colspan="4">(1) 南京农业大学人才引进科研启动基金，编号：603690，南京农业大学，农业智能传感器及检测技术研究，2020-01 至 2023-01，主持。
(2) 江苏省自然科学基金青年基金，江苏省科技厅，编号：BK20200546，基于 H2O2/低压紫外光解络的有机态土壤重金属溶出伏安精准检测方法研究，2020-07 至 2023-06，主持。
(3) 国家自然科学基金青年基金，国家自然科学基金委员会，编号：32001411，土壤三价砷溶出伏安检测的纳米敏感涂层合成及传感器制备方法研究，2021-01 至 2023-12，主持。
(4) 高校基本科研业务费项目（青年基金项目），南京农业大学，编号：KJQN202139，土壤三价砷溶出伏安检测的纳米敏感涂层合成及传感器制备方法研究， 2021-01 至 2021-12，主持。
(5) 国家自然科学基金面上项目，国家自然科学基金委员会，编号：32071898，土壤重金属溶出伏安检测中腐殖质干扰机理及抑制方法研究，2021-01 至 2024-12，第一参与人。
(6) 国家重点研发计划（政府间国际科技创新合作），编号：2019YFE0125200，智慧农场农业机器人研发，中华人民共和国科学技术部，2020-12 至 2022-11，参与。</td></tr>
</table>

学术成果 **(论文、专利、软著等)**	**发表论文情况：** [1] Shengcun Ma#, **Guo Zhao**#, Mona Elsayed#, Mohammed Sedki, Xingyu Chen, Dong Wu, Ximin He, Ashok Mulchandani*, David Jassbya*, Toward Rapid Detection of Trace Lead and Cadmium by Anodic Stripping Voltammetry in Complex Wastewater Streams. *ACS ES&T Engineering*, 2021. [2] Mohammed Sedki#, **Guo Zhao**#, Shengcun Ma, David Jassby, Ashok Mulchandani*. Linker-Free Magnetite-Decorated Gold Nanoparticles (Fe_3O_4-Au): Synthesis, Characterization, and Application for Electrochemical Detection of Arsenic (III). *Sensors*, 2021, 21(3): 883. [3] **Guo Zhao**, Cong Li, Xiaochan Wang, Gang Liu, Nguyen Thi Dieu Thuy. A Reusable Electrochemical Aptasensor for the Sensitive Detection of Pb(II) with an Electrodeposited AuNP-Modified Electrode based on the Formation of a Target-Induced G-Quadruplex. *International Journal of Electrochemical Science*, 2021, 16: 150956. [4] **Guo Zhao**, Mohammed Sedki, Shengcun Ma, Claudia Villarreal, Ashok Mulchandani*, David Jassby. Bismuth Subcarbonate Decorated Reduced Graphene Oxide Nanocomposite for the Sensitive Stripping Voltammetry Analysis of Pb (II) and Cd (II) in Water. *Sensors*, 2020, 20(21): 6085. [5] **Guo Zhao**, Gang Liu*. Electrochemical Deposition of Gold Nanoparticles on Reduced Graphene Oxide by Fast Scan Cyclic Voltammetry for the Sensitive Determination of As (III). *Nanomaterials*, 2019, 9(1): 41. [6] **Guo Zhao**, Gang Liu*. Synthesis of a three-dimensional $(BiO)_2CO_3$@single-walled carbon nanotube nanocomposite and its application for ultrasensitive detection of trace Pb (II) and Cd (II) by incorporating Nafion. *Sensors and Actuators B: Chemical*, 2019, 288: 71-79. [7] **Guo Zhao**, Gang Liu*. Synthesis and characterization of a single-walled carbon nanotubes/L-cysteine/Nafion-Ionic liquid nanocomposite and its application in the ultrasensitive determination of Cd(II) and Pb(II). *Journal of Applied Electrochemistry*, 2019, 49(6): 609-619. [8] **Guo Zhao**, Gang Liu*. Interference Effects of Cu (II) and Pb (II) on the Stripping Voltammetric Detection of Cd (II): Improvement in the Detection Precision and Interference Correction. *Journal of the Electrochemical Society*, 2018, 165(9): H488-H495. [7] **Guo Zhao**, Hui Wang, Gang Liu*. Sensitive determination of trace Cd (II) and Pb (II) in soil by an improved stripping voltammetry method using two different in situ plated bismuth-film electrodes based on a novel electrochemical measurement system. *RSC Advances*, 2018, 8(10): 5079-5089. [8] **Guo Zhao**, Gang Liu*. A Portable Electrochemical System for the On-site Detection of Heavy Metals in Farmland Soil Based on Electrochemical Sensors. *IEEE Sensors Journal*, 2018, 14(18): 5645-5655. [9] **Guo Zhao**, Hui Wang, Gang Liu*, Zhiqiang Wang. Simultaneous and Sensitive Detection of Cd (II) and Pb (II) Using a Novel Bismuth Film/Ordered Mesoporous Carbon‐molecular Wire Modified Graphite Carbon Paste Electrode. *Electroanalysis*, 2017, 29(2): 497-505.

[10] **Guo Zhao**, Hui Wang, Gang Liu*, Jin Cheng. Simultaneous determination of trace Cd (II) and Pb (II) based on Bi/Nafion/reduced graphene oxide-gold nanoparticle nanocomposite film-modified glassy carbon electrode by one-step electrodeposition. *Ionics*, 2017, 23(3): 767-777.

[11] **Guo Zhao**, Hui Wang, Yuan Yin, Gang Liu*. PSO-SVM applied to SWASV studies for accurate detection of Cd (II) based on disposable electrode. *International Journal of Agricultural and Biological Engineering*, 2017, 10(5): 251-261.

[12] **Guo Zhao**, Hui Wang, Gang Liu*. Recent Advances in Chemically Modified Electrodes, Microfabricated Devices and Injection Systems for the Electrochemical Detection of Heavy Metals: A review. *International Journal of Electrochemical Science*, 2017, 12(9): 8622-8641.

[13] **Guo Zhao**, Hui Wang, Gang Liu. Direct quantification of Cd^{2+} in the presence of Cu^{2+} by a combination of anodic stripping voltammetry using a bi-film-modified glassy carbon electrode and an artificial neural network. *Sensors*, 2017, 17(7): 1558-1573.

[14] **Guo Zhao**, Yuan Yin, Hui Wang, Gang Liu*, Zhiqiang Wang. Sensitive stripping voltammetric determination of Cd (II) and Pb (II) by a Bi/multi-walled carbon nanotube-emeraldine base polyaniline-Nafion composite modified glassy carbon electrode. *Electrochimica Acta*, 2016, 220: 267-275.

[15] **Guo Zhao**, Hui Wang, Gang Liu*, Zhiqiang Wang. Box–Behnken response surface design for the optimization of electrochemical detection of cadmium by Square Wave Anodic Stripping Voltammetry on bismuth film/glassy carbon electrode. *Sensors and Actuators B: Chemical*, 2016, 235: 67-73.

[16] **Guo Zhao**, Hui Wang, Gang Liu*, Zhiqiang Wang. Simultaneous determination of Cd (II) and Pb (II) based on bismuth film/carboxylic acid functionalized multi-walled carbon nanotubes-beta-cyclodextrin-nafion nanocomposite modified electrode. *International Journal of Electrochemical Science*, 2016, 11: 8109-8122.

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[19] **Guo Zhao**, Yongsheng Si, Hui Wang, Gang Liu*. A portable electrochemical detection system based on graphene/ionic liquid modified screen-printed electrode for the detection of cadmium in soil by square wave anodic stripping voltammetry. *International Journal of Electrochemical Science*, 2016, 11: 54-64.

[20] **Guo Zhao**, Qingcui Xu, Qianqian Zhang, Yemin Guo*, Xia Sun, Xiangyou Wang. Study on Aptasensors Modified by Ionic Liquid-Fe_3O_4 Based on Microarray Electrodes for Tetracycline Detection. *International Journal of Electrochemical Science*, 2016, 11: 1699-1706.

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	for pesticide residues rapid detection. *International Journal of Electrochemical Science*, 2015, 10(12): 9790-9807. [22] **Guo Zhao**#, Yemin Guo#, Xia Sun*, Xiangyou Wang. A system for pesticide residues detection and agricultural products traceability based on acetylcholinesterase biosensor and internet of things. *International Journal of Electrochemical Science*, 2015, 10(4): 3387-3399. [23] **赵国**, 孙霞*, 王相友. 基于物联网技术和生物传感器技术的蔬菜质量安全溯源系统研究. *食品安全质量检测学报*, 2015, 6(03): 747-755. [24] **Guo Zhao**, Xia Sun*, Yemin Guo, Xiangyou Wang, Yongxin Jia. A portable instrument based on acetylcholinesterase biosensor for the rapid detection of pesticides residues. *Sensors & Transducers*, 2014, 182(11): 1. **申请专利情况：** [1] **赵国**, 汪小昱, 卢伟, 章永年, 代德健. 基于纳米传感通道电化学掺杂的土壤三价砷检测方法, 2021-07-06, ZL202011039993.5, 已授权发明专利。 [2] **赵国**, 汪小昱, 卢伟, 王洁, 章永年. 一种重金属离子电化学传感器批量制备方法, 2021-09-10, ZL202011466816.5, 已授权发明专利。 [3] 刘刚, **赵国**, 王辉. 一种土壤重金属电化学原位检测系统及检测方法, 2020-04-01, ZL201711105807.1，已授权发明专利。 [4] 刘刚, **赵国**, 王辉. 采用两步电沉积和溶出步骤的土壤重金属伏安检测方法, 2019-05-21, ZL201710283270.1，已授权发明专利。 [5] 刘刚, **赵国**, 王辉. 基于脲酶生物传感器的土壤重金属检测仪, 2018-04-03, ZL201511021464.1，已授权发明专利。 [6] 刘君峰, **赵国**, 孙霞, 郭业民. 一种蔬菜农药残留的物联网追溯系统及应用, 2017-11-07, ZL201410748047.6，已授权发明专利。 [7] 刘君峰, **赵国**, 孙霞, 郭业民. 一种农产品农药残留的物联网监测系统及应用, 2016-01-13, ZL201410747673.3，已授权发明专利。 [6] 郭业民, 孙霞, 王相友, 刘君峰, **赵国**. 一种定量检测果蔬中农药残留的快速检测仪, 2016-01-20, ZL201410142977.7，已授权发明专利。 [7] 郭业民, 王相友, 孙霞, 刘君峰, **赵国**. 一种适配体传感器抗生素残留快速检测仪, 2015-07-29, ZL201310576568.3，已授权发明专利。 [8] 孙霞, 郭业民, 王相友, 刘君峰, **赵国**. 一种乙酰胆碱酯酶生物传感器农药残留快速检测仪, 2015-05-13, 已授权发明专利。 [9] 郭业民, 王相友, 孙霞, 刘君峰, **赵国**. 一种电流型免疫传感器农药残留快速检测仪, 2015-03-24, ZL201310576569.8，已授权发明专利。
奖励荣誉	**2020 年 荣获中国农业大学优秀博士学位论文** **2019 年 荣获北京市优秀毕业生称号。** **2017 年 荣获中国农业大学“五四青年标兵”称号。** **2016 年 荣获中国商业联合会科学技术奖-全国商业科技进步奖（9/10）。** **2015 年 荣获山东省研究生优秀科技创新成果奖。**

社会兼职	**中国农业工程学会会员；** **中国农业机械学会会员；** **中国化学会会员；** **中国微米纳米技术学会会员。**
欢迎有志向、能吃苦、热爱科研的同学报考研究生！也欢迎有一定理论基础和动手能力的本科生加入实验室学习和深造！	