



华修德

职 称：副教授，硕士生导师

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研究方向：

农药残留与环境毒理

农药半抗原、抗体（多克隆抗体、单克隆抗体、纳米抗体）、模拟表位、抗免疫复合体多肽的研制，及新颖的农药残留免疫分析方法的开发。

教育经历：

2018.03–2019.03 美国加州大学戴维斯分校农，农业与环境科学学院，访问学者

2007.09–2012.12 南京农业大学植物保护学院，博士

2012.02–2012.08 美国加州大学戴维斯分校农业与环境科学学院，访问学者

2002.09–2006.06 天津农学院园艺系，学士

工作经历：

2015.01-今，南京农业大学植物保护学院，副教授，硕士生导师

2013.02–2014.12，南京农业大学植物保护学院，讲师

执教课程：

农药登记与管理

农药残留与农产品安全

植物化学保护实验

农药学

农药加工与管理

承担课题：

1. 国家自然科学基金面上项目，31972311、有机磷类农药噬菌体展示多肽模拟表位在淘选程序中的遗漏机制研究、2020.01-2023.12、58 万元、主持。
2. 国家自然科学基金面上项目，31772194、纳米多肽竞争物与抗体互作的亲和力调控机制研究、2018.01-2021.12、65 万元、主持。
3. 国家重点研发计划子课题，2017YFF0210200、跨境生物产制品和工程生物检验检测及控制技术研究、2017.07-2020.12、50 万元、主持。
4. 国家重点研发计划子课题，2016YFD0200207、化学农药在我国不同种植体系的归趋特征与限量标准、2016.01-2020.12、205 万元、主持。
5. 国家自然科学基金青年项目，31301690、氯噻啉重链抗体亲和性和特异性关键氨基酸残基作用机理的研究、2014.01-2016.12、25 万元、主持。
6. 教育部高等学校博士点基金课题，20130097120006、氯噻啉重链抗体的体外进化及关键氨基酸残基功能的研究、2014.01-2016.12、4 万元、主持。

代表性科研成果：

1. He Chen, Yuan Ding, Qian Yang, Bogdan Barnych, Gualberto González-Sapienza, Bruce D. Hammock, Minghua Wang, **Xiude Hua***. Fluorescent “Turn off-on” Small-Molecule-Monitoring Nanoplatfrom Based on Dendrimer-like Peptides as Competitors. *ACS Applied Materials & Interfaces* 2019, 11: 33380–33389.
2. Yuan Ding, **Xiude Hua***, He Chen, Gualberto Gonzalez-Sapienza, Bogdan Barnych, Fengquan Liu, Minghua Wang, Bruce D. Hammock. A dual signal immunochromatographic strip for the detection of imidaclothiz using a recombinant fluorescent-peptide tracer and gold nanoparticles. *Sensors & Actuators: B. Chemical* 2019, 297: 126714.
3. He Chen, Qian Yang, Yuan Ding, Natalia Vasylieva, Candace S. Bever, **Xiude Hua***, Minghua Wang, Bruce D. Hammock. Competitive and noncompetitive immunoassays for the detection of benzothiostrubin using magnetic nanoparticles and fluorescein isothiocyanate-labeled peptides. *Analytical and Bioanalytical Chemistry* 2019, 411: 527–535.
4. Yuan Ding, **Xiude Hua***, Mei Du, Qian Yang, Lina Hou, Limin Wang, Fengquan Liu, Gualberto Gonzalez-Sapienza, Minghua Wang. Recombinant, Fluorescent, Peptidomimetic Tracer for Immunodetection of Imidaclothiz. *Analytical Chemistry* 2018, 90: 13996–14002.
5. Yuan Ding, **Xiude Hua***, He Chen, Fengquan Liu, Gualberto González-Sapien, Minghua Wang. Recombinant peptidomimetic-nano luciferase tracers for sensitive single-step immunodetection of small molecules. *Analytical Chemistry* 2018, 90: 2230–2237.
6. **Xiude Hua**, Yuan Ding, Jiachuan Yang, Ming Ma, Haiyan Shi, Minghua Wang*. Direct competitive fluoroimmunoassays for detection of imidaclothiz in environmental and agricultural samples using quantum dots and europium as labels. *Science of the Total Environment* 2017, 583: 222–227.
7. Hongjie You¹, **Xiude Hua^{1,*}**, Lu Feng, Nana Sun, Qi Rui, Limin Wang, Minghua Wang. Competitive immunoassay for imidaclothiz using upconversion nanoparticles and gold nanoparticles as labels. *Microchim Acta* 2017, 184: 1085–1092. (co-first author)

8. Yuan Ding, **Xiude Hua***, Nana Sun, Jiachuan Yang, Jiaqi Deng, Haiyan Shi, Minghua Wang. Development of a phage chemiluminescent enzyme immunoassay with high sensitivity for the determination of imidaclothiz in agricultural and environmental samples. *Science of the Total Environment* 2017, 609: 854–860.
9. **Xiude Hua**, Hongjie You, Peiwen Luo, Zhexuan Tao, He Chen, Fengquan Liu, Minghua Wang. Upconversion fluorescence immunoassay for imidaclothiz by magnetic nanoparticle separation. *Analytical and Bioanalytical Chemistry* 2017, 409: 6885–6892.
10. **Xiude Hua**, Liangliang Zhou, Lu Feng, Yuan Ding, Haiyan Shi, Limin Wang, Shirley J. Gee, Bruce D. Hammock, Minghua Wang. Competitive and noncompetitive phage immunoassays for the determination of benzothiostrubin. *Analytica Chimica Acta* 2015, 890: 150–156.
11. **Xiude Hua**, Xiaofeng Liu, Wei Yin, Yazhong Xia, Qiujun Zhou, Yiwen Lu, Wei Li, Haiyan Shi, Fengquan Liu, Minghua Wang. A sensitive monoclonal antibody-based enzyme-linked immunosorbent assay for the detection of bifenthrin in a chemical soil barrier. *Science of the Total Environment* 2015, 502: 246–251.
12. **Xiude Hua**, Wei Yin, Haiyan Shi, Ming Li, Yanru Wang, Hong Wang, Yonghao Ye, Hee Joo Kim, Shirley J. Gee, Minghua Wang, Fengquan Liu, Bruce D. Hammock. Development of phage immuno-loop-mediated isothermal amplification assays for organophosphorus pesticides in agroproducts. *Analytical Chemistry* 2014, 86: 8441–8447.
13. **Xiude Hua**, Guoliang Qian, Jifei Yang, Baishi Hu, Jiaqin Fan, Na Qin, Gang Li, Yuyan Wang, Fengquan Liu. Development of an immunochromatographic assay for the rapid detection of chlorpyrifos-methyl in water samples. *Biosensors and Bioelectronics* 2010, 26: 189–194.

社会服务工作:

中国植物保护学会青年委员会委员

Anal.Chem.; Biosens. Bioelectro.; J Hazard Mater.; Anal. Chim. Acta; Scientific Reports; J. Agric. Food Chem.; Food Chem.等多种 SCI刊物的审稿人

荣誉奖励:

江苏省高校“青蓝工程”优秀青年骨干教师, 2016

南京农业大学钟山学术新秀, 2019

华修德 (2/11), 农产品中农药残留快速免疫检测技术与产品, 江苏省科学技术奖, 一等奖, 2017 (2017-1-24-R2)

华修德 (7/12), 农产品中农药与重金属快速免疫检测技术创建及应用, 神农中华农业科技奖, 一等奖, 2017 (KJ2017-D1-025-07)

华修德 (2/11), 农产品与环境中农药、重金属快速检测技术与产品, 中国植物保护学会, 科学技术奖, 一等奖, 2016 (2016-YJ-1-02-R02)