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研究方向: POPs与纳米毒理学

招生专业: 环境科学



简历:

教育经历

2000/08-2004/12, 美国田纳西大学(Knoxville)生态学与进化生物学系/环境生物技术中心 环境毒理学, 博士 导师: Gary S Sayler

1997/09-2000/06, 中国疾控中心环境与健康研究所 生态毒理学, 硕士 导师: 修瑞琴教授

1993/06-1997/06, 获南开大学环境科学系环境生物学专业 学士学位;

工作经历

2008/03-至今, 中国科学院生态环境研究中心, 环境化学与生态毒理学国家重点实验室, 副研究员, 硕士生导师

2007/03-2008/03, 中国科学院生态环境研究中心, 环境化学与生态毒理学国家重点实验室, 助理研究员2004/12-2006/12, 美国田纳西大学
比较医学系 (Comparative Medicine), 博士后

承担科研项目:

1. 中国科学院前沿科学重点研究项目, QYZDJ-SSW-DQC020-02, PBDEs对斑马鱼的生殖发育毒性及其机制 (课题2), 2016/08-2020/1
2, 75万, 在研, 主持

2. 国家重点研发计划子课题, 化学品斑马鱼发育毒性检测技术研究, 2017/07-2020/12, 40万元, 在研, 主持

3. 国家自然科学基金面上项目, 21477146, 几种碳纳米材料诱导的细胞自噬效应及其毒性作用机制研究, 2015/01-2018/12, 90万元, 结
题, 主持

4. 国家自然科学基金面上项目, 21277158, 单壁碳纳米管的生物可利用性、生物可降解性及毒性效应, 2013/01-2016/12, 80万元, 结题,
主持

5. 国家自然科学基金青年项目, 20807054, 单壁碳纳米管的免疫毒理和毒理基因组学分子机制研究, 2009/01-2011/12, 19万元, 结题, 主
持

6. 科技部“973计划”, 2009CB421605, PBDE和PFC的毒性效应与分子机制研究 (子课题), 2009/01-2013/12, 50万元, 结题, 主持

7. 中科院知识创新工程领域前沿项目, RCEES-QN-200714, 用基因芯片的方法研究碳纳米管的免疫毒性作用及分子机制, 2007/08-2009/0
7, 8.8万元, 结题, 主持

8. 国家自然科学基金委员会重大研究计划, 91543203, 基于颗粒物模型研究PM2.5氧化应激效应的分子机制, 2016/01-2019/12, 341万
元, 在研, 参加

9. 中科院战略先导科技专项B, XDB14040100,典型污染物的内分泌干扰效应与发育毒性, 2014/07-2019/06, 1260万元, 在研, 参加

10. 国家自然科学基金委员会重大项目, 20890112, 典型持久性有机污染物的累积代谢及其与生物分子的相互作用, 2009/01-2012/12, 350
万元, 结题, 参加

11. 国家科技重大专项, 2009ZX07207-002-03, 松花江优先生态风险污染物的生态效应研究, 2009/01-2011/12, 240万元, 结题, 参加

12. 科技部“863计划”，2007AA06A407，重大环境污染事件应急技术系统研究开发与应用示范，2007/11-2010/11，120万元，结题，参加

代表论著：

1. Olunyi O. Fadare, Bin Wan *, Liang-Hong Guo *, Yan Xin, Weiping Qin, Yu Yang. Humic acid alleviates the toxicity of polystyrene nanoplastic particles to Daphnia magna. *Environmental Science: Nano*, 2019, 6, 1466-1477.
2. Yichun Xie, Bin Wan*, Yu Yang, Xuejing Cui, Yan Xin, Liang-Hong Guo. Cytotoxicity and autophagy induction by graphene quantum dots with different functional groups. *Journal of Environmental Science*, 2019, 77, 198-209.
3. Yan Xin, Bin Wan*, Yu Yang, Xue-Jing Cui, Yi-Chun Xie, Liang-Hong Guo*. Perfluoroalkyl acid exposure induces protective mitochondrial and endoplasmic reticulum autophagy in lung cells. *Archives of Toxicology*, 2018, 92, 3131–3147.
4. Yuxin Gu, Yu Yang*, Bin Wan, Minjie Li, Liang-Hong Guo*, Inhibition of O-linked N-acetylglucosamine transferase activity in PC12 cells -A molecular mechanism of organophosphate flame retardants developmental neurotoxicity, *Biochemical Pharmacology*, 2018, 152, 21-33.
5. Lin-Ying Cao, Xiao-Min Ren, Yu Yang, Bin Wan, Liang-Hong Guo*, De Chen, and Yong Fan, Hydroxylated Polybrominated Biphenyl Ethers Exert Estrogenic Effects via Non-Genomic G Protein-Coupled Estrogen Receptor Mediated Pathways, *Environmental Health Perspectives*, 2018, 126(5), 057005.
6. Xuejing Cui, Bin Wan*, Yu Yang, Xiaomin Ren, Liang-Hong Guo*, Length effects on the dynamic process of cellular uptake and exocytosis of single-walled carbon nanotubes in murine macrophage cells. *Scientific Reports*, 2017, 7, 1518.
7. Lin-Ying Cao, Xiao-Min Ren, Chuan-Hai Li, Jing Zhang, Wei-Ping Qin, Yu Yang, Bin Wan, and Liang-Hong Guo*, Bisphenol AF and Bisphenol B Exert Higher Estrogenic Effects than Bisphenol A via G Protein-Coupled Estrogen Receptor Pathway, *Environmental Science & Technology*, 2017, 51, 11423-11430.
8. Yu Yang*, Yuxin Gu, Bin Wan, Xiaomin Ren, Liang-Hong Guo*, Label-free electrochemical biosensing of small-molecule inhibition on OGlcNAc glycosylation, *Biosensors and Bioelectronics*, 2017, 95, 94-99.
9. Yu Yang, Qi-Yan Lv, Liang-Hong Guo*, Bin Wan, Xiao-Min Ren, Ya-Li Shi, Ya-Qi Cai. Identification of protein tyrosine phosphatase SHP-2 as a new target of perfluoroalkyl acids in HepG2 cells. *Archives of Toxicology*, 2017, 91, 1697-1707.
10. Xuejing Cui, Bin Wan*, Yu Yang, Xiaomin Ren, Liang-Hong Guo*, and Hui Zhang. Crucial Role of P2X7 Receptor in Regulating Exocytosis of Single-Walled Carbon Nanotubes in Macrophages. *Small*, 2016, 12, 5998-6011.
11. Xuejing Cui, Bin Wan*, Liang-Hong Guo*, Yu Yang, and Xiaomin Ren. Insight into the Mechanisms of Combined Toxicity of Single-Walled Carbon Nanotubes and Nickel Ions in Macrophages: Role of P2X7 Receptor. *Environmental Science & Technology*, 2016, 50, 12473-12483.
12. Jie Hou, Bin Wan*, Yu Yang, Xiao-Min Ren, Liang-Hong Guo*, and Jing-Fu Liu. Biodegradation of Single-Walled Carbon Nanotubes in Macrophages through Respiratory Burst Modulation. *International Journal of Molecular Sciences*, 2016, 17, 409-426.
13. Sufang Wang, Qiyan Lv, Yu Yang, Liang-Hong Guo*, Bin Wan, Xiaomin Ren, Hui Zhang. Arginine decarboxylase: A novel biological target of mercury compounds identified in PC12 cells. *Biochemical Pharmacology*, 2016, 118, 109-120.

14. Xiao-Min Ren, Lin-Ying Cao, Jing Zhang, Wei-Ping Qin, Yu Yang, Bin Wan, and Liang-Hong Guo*. Investigation of the Binding Interaction of Fatty Acids with Human G Protein-Coupled Receptor 40 Using a Site-Specific Fluorescence Probe by Flow Cytometry. *Biochemistry*, 2016, 55, 1989-1996.
15. Xiaomin Ren, Linying Cao, Yu Yang, Bin Wan, Sufang Wang, Liang-hong Guo*. In vitro assessment of thyroid hormone receptor activity of four organophosphate esters. *Journal of Environmental Sciences*, 2016, 45, 185-190.
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17. Xiao-Min Ren, Wei-Ping Qin, Lin-Ying Cao, Jing Zhang, Yu Yang, Bin Wan, Liang-Hong Guo*. Binding interactions of perfluoroalkyl substances with thyroid hormone transport proteins and potential toxicological implications. *Toxicology*, 2016, 366, 32–42.
18. Qi-Yan Lv, Bin Wan*, Liang-Hong Guo*, Lixia Zhao, Yu Yang. In vitro immune toxicity of polybrominated diphenyl ethers on murine peritoneal macrophages: Apoptosis and immune cell dysfunction. *Chemosphere*, 2015, 120, 621-630.
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20. Hui Zhang, Liang-Hong Guo*, Lixia Zhao, Bin Wan, and Yu Yang. Switching Oxygen Reduction Pathway by Exfoliating Graphitic Carbon Nitride for Enhanced Photocatalytic Phenol Degradation. *The Journal of Physical Chemistry Letters*, 2015, 6(6), 958-963.
21. Hui Zhang, Liang-Hong Guo,* Dabin Wang, Lixia Zhao, and Bin Wan. Light-Induced Efficient Molecular Oxygen Activation on a Cu (II)-Grafted TiO₂/Graphene Photocatalyst for Phenol Degradation. *ACS Applied Materials & Interfaces*, 2015, 7(3), 1816-1823.
22. 王大彬, 赵利霞*, 郭良宏, 张辉, 万斌, 杨郁. Online Quantification of O₂• - and H₂O₂ and Their Formation Kinetics in Ultraviolet (UV)-Irradiated Nano-TiO₂ Suspensions by Continuous Flow Chemiluminescence. *化学学报 (ACTA CHIMICA SINICA)* , 2015, 73 (5), 388-394.
23. Lixia Zhao,Fanglan Geng,Fan Di,Liang-Hong Guo, Bin Wan, Yu Yang,Hui Zhang and Guozhu Sun. Polyamine-functionalized carbon nanodots: a novel chemiluminescence probe for selective detection of iron (III) ions. *RSC Advances*, 2014, 4:45768-45771.
24. Sufang Wang, Bin Wan, Lianying Zhang, Yu Yang, Liang-Hong Guo. In Vitro Inhibition of Lysine Decarboxylase Activity by Organo phosphate Esters. *Biochemical Pharmacology*. 2014, 92, 506-516.
25. Lianying Zhang, Xiao-Min Ren, Bin Wan, Liang-Hong Guo*. Structure-dependent binding and activation of perfluorinated compounds on human peroxisome proliferator-activated receptor γ. *Toxicology and Applied Pharmacology*, 2014, 279, 275-283.
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27. Ping-Xuan Dong, Bin Wan*, Zi-Xia Wang, Liang-Hong Guo*, Yu Yang & Lixia Zhao. Exposure of single-walled carbon nanotubes impairs the functions of primarily cultured murine peritoneal macrophages. *Nanotoxicology*, 2013, 7(5): 1028-1042.
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34. Na Qu, Bin Wan and Liang-Hong Guo*. Label-free electrochemical differentiation of phosphorylated and non-phosphorylated peptide by electro-catalyzed tyrosine oxidation. *Analyst*, 2008, 133, 1246-1249.
35. Bin Wan, Jason W. Yarbrough, T. Wayne Schultz*. Structure-related clustering of gene expression fingerprints of thp-1 cells exposed to smaller polycyclic aromatic hydrocarbons. *SAR and QSAR in Environmental Research*, 2008, 19 (3-4), 351-373.
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37. Bin Wan, Sayler GS, Schultz TW*. Structure-activity relationships for flow cytometric data of smaller polycyclic aromatic hydrocarbons. *SAR and QSAR in Environmental Research*, 2006, 17(6), 597-605.



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