



## 师资队伍

教授

产业教授

副教授

讲师

实验教师

行政人员

## 副教授

李慧明

1983年2月生

博士，副教授

南京师范大学环境学院

### 联系方式

电子邮箱: valen222@126.com

办公室: 南京师范大学仙林校区学行楼

通信地址: 南京市栖霞区文苑路1号, 210023

### 教育背景

2011.09—2014.06 南京大学, 环境科学与工程, 理学博士

2007.09—2010.06 南京大学, 生态学, 理学硕士



2003.09—2007.06 河海大学，环境工程，工学学士

## 研究经历

2019.07—至今，南京师范大学，环境学院，副教授

2014.10—2019.03，南京大学，环境学院，助理研究员、副研究员

## 主要研究方向

环境介质中重金属污染特征、时空分布、生态及健康风险

城市大气颗粒物理化特征、来源及污染防控

重金属时空分布模拟及预测

## 承担（参与）的主要科研项目

1. 国家自然科学基金面上项目，42077430，富营养化湖泊沉积物重金属多污染特征的非线性磁学响应，2021/01-2024/12，，主持。
2. 国家自然科学基金青年项目，41501549，城市大气重金属多污染特征的磁学诊断，2016/01-2018/12，主持。
3. 江苏省自然科学基金面上项目，BK20171339，长三角典型城市大气颗粒物暴露的神经心理健康效应，2017/01-2020/06，主持。
4. 江苏省自然科学基金面上项目，BK20191372，太湖流域饮用水水源地碘代X射线造影剂类PPCPs的环境赋存与分布特征研究，2019/07-2022/06，参加。
5. 国家自然科学基金面上项目，41771533，大气颗粒物重金属实际暴露毒性的磁学响应及快速模拟，2018/01-2021/12，参加。
6. 国家自然科学基金面上项目，41271511，城市大气颗粒物重金属污染特征及健康风险评估，2013/01-2016/12，参加。

7. 国家科技重大水专项项目, 2017ZX07204004, 望虞河西岸河网区干流河道水生态修复及实时诊断联动能力提升技术与示范, 2017/01 -2020/06, 参加。

8. 国家重点研发计划项目, 2016YFC0208504, 基于源追踪数值模拟的动态源解析技术体系研究, 2016/07-2019/06, 参加。

#### 近期发表论文 (\*通讯作者)

[1] Liu XM, Wang JH, Zhou MF, Dai QY, Wang QG, **Li HM\***, Qian X\*. 2020. Particulate matter exposure disturbs inflammatory cytokine homeostasis associated with changes in trace metal levels in mouse organs. **Science of the Total Environment**, 727, 138377.

[2] **Li HM**, Dai QY, Yang M, Li FY, Liu XM, Zhou MF, Qian X\*. 2020. Heavy metals in submicronic particulate matter (PM<sub>1</sub>) from a Chinese metropolitan city predicted by machine learning models. **Chemosphere**, 261, 127571.

[3] Dai QY, Zhou MF, **Li HM\***, Qian X\*, Yang M, Li FY. 2020. Biomagnetic monitoring combined with support vector machine: a new opportunity for predicting particle-bound-heavy metals. **Scientific Reports**, 10, 8605.

[4] Liu XM, Wang JH, Fan YF, Xu Y, Xie MX, Yuan Y, **Li HM\***, Qian X\*. 2019. Particulate Matter Exposure History Affects Antioxidant Defense Response of Mouse Lung to Haze Episodes. **Environmental Science & Technology**, 53, 9789–9799.

[5] Leng XZ, Qian X, Yang M, Wang C, **Li HM\***, Wang JH. 2018. Leaf magnetic properties as a method for predicting heavy metal concentrations in PM2.5 using support vector machine: A case study in Nanjing, China. **Environmental Pollution**, 242, 922–930.

[6] Liu XM, Qian X, Xing J, Wang JH, Sun YX, Wang QG, **Li HM\***. 2018. Particulate Matter Triggers Depressive-Like Response Associated With Modulation of Inflammatory Cytokine Homeostasis and Brain-Derived Neurotrophic Factor Signaling Pathway in Mice. **Toxicological Sciences**, 164(1), 278–288.

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[9] Leng XZ, Wang C, **Li HM\***, Qian X\*, Wang JH, Sun YX. 2017. Response of magnetic properties to metal deposition on urban green in Nanjing, China. **Environmental Science and Pollution Research**, 24, 25315–25328.

[10] Leng XZ, Wang JH, Ji HB, Wang QG, **Li HM\***, Qian X\*, Li FY, Yang M. 2017. Prediction of size-fractionated airborne particle-bound metals using MLR, BP-ANN and SVM analyses. **Chemosphere**, 180, 513–522.

[11] **Li HM**, Wu HF, Wang QG, Yang M, Li FY, Sun YX, Qian X\*, Wang JH, Wang C. 2017. Chemical partitioning of fine particle-bound metals on haze–fog and non-haze–fog days in Nanjing, China and its contribution to human health risks. **Atmospheric Research**, 183, 142–150.

[12] **Li HM**, Wang QG, Shao M, Wang JH, Wang C, Sun YX, Qian X\*, Wu HF, Yang M, Li FY. 2016. Fractionation of airborne particulate-bound elements in haze-fog episode and associated health risks in a megacity of southeast China. **Environmental Pollution**, 208, 655–662.

[13] **Li HM**, Wang QG, Yang M, Li FY, Wang JH, Sun YX, Wang C, Wu HF, Qian X\*. 2016. Chemical characterization and source apportionment of PM2.5 aerosols in a megacity of Southeast China. **Atmospheric Research**, 181, 288–299.

[14] Wang JH, Li SW, Cui XY, **Li HM\***, Qian X\*, Wang C, Sun YX. 2016. Bioaccessibility, sources and health risk assessment of trace metals in urban park dust in Nanjing, Southeast China. **Ecotoxicology and Environmental Safety**, 128, 161–170.

[15] **Li HM**, Wang JH, Wang QG, Qian X\*, Qian Y\*, Yang M, Li FY, Lu H, Wang C. 2015. Chemical fractionation of arsenic and heavy metals in fine particle matter and its implications for risk assessment: a case study in Nanjing, China. **Atmospheric Environment**, 103, 339–346.

[16] **Li HM**, Qian X\*, Wei HT, Zhang RB, Yang Y, Liu Z, Hu W, Gao HL, Wang YL. 2014. Magnetic properties as proxy for the evaluation of heavy metal contamination in urban street dusts of Nanjing, Southeast China. **Geophysical Journal International**, 199(3), 1354–1366.

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上一条: 李继宁

下一条: 林蕾

