

(/)

×

首页

实验室概况

机构与队伍

科学研究

仪器设备

开放课题

内部资料

联系我们

En

机构与队伍

## 周斌 教授/博导

---



**周斌** 博士/教授/博士生导师

环境科学与工程系学术委员会委员

E-mail: [binzhou@fudan.edu.cn](mailto:binzhou@fudan.edu.cn) (<mailto:binzhou@fudan.edu.cn>)

### 个人简历

2010年2月- 现在; 复旦大学环境科学与工程系, 教授

2004年2月-2010年2月; 复旦大学环境科学与工程系, 副教授

2002年7月-2004年2月; 复旦大学环境科学与工程系, 讲师

1997年9月-2002年7月; 中国科学院安徽光学精密机械研究所, 研究生



## 学术研究:

研究领域主要涉及环境遥感观测新技术应用研究, 大气氧化性及其大气复合污染研究, 以及卫星遥感数据地面对比验证等, 长期主讲本科生课程《环境物理学导论》, 研究生课程《光谱技术在环境监测中的应用》等, 在光谱测量、分析、反演等方面有着丰富的经验。作为项目负责人, 先后承担和参与国家重点研发计划、国家“863”课题、国家气象行业专项、国家自然科学基金、以及上海市科委、上海市环保局科技攻关等30余项国家及地方研究课题。同时为JGR、AE、ACP、AMT等学术刊物审稿人, 在国内外学术刊物上发表50余篇研究论文, 申请专利10余项。

## 主要研究领域有:

- 1) 环境遥感技术研究及应用;
- 2) 大气氧化性及其大气复合污染;
- 3) 卫星数据地面验证方法研究。
- 4) 环境监测新技术研发

## 社会兼职:

- 1)中国仪器仪表学会环境与安全检测仪器分会理事;
- 2)中国光学学会第一届环境光学专业委员会委员;

## 招生愿望:

欢迎具有环境科学、化学、物理、气象、计算机等专业背景的学生报考本人的硕士、博士研究生, 以及联系博士后研究工作

## 学术成果

近期主持的主要科研项目

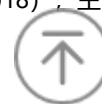
**国家重点研发计划--大气污染成因与控制技术研究项目“大气污染多平台一体化监测技术”** (2016-2020), 首席科学家;

**国家自然科学基金面上项目“天然和人为排放VOCs氧化过程关键因子及其对大气光化学过程影响研究”** (2020-2023), 主持;

**国家自然科学基金面上项目“基于主被动遥感方法探测大气污染物有效混合高度及其对大气复合污染的影响”** (2018-2021), 主持;

**国家自然科学基金面上项目“地面高臭氧污染成因及乙二醛和亚硝酸在臭氧形成过程中的化学行为研究”** (2015-2018), 主持;

**国家自然科学基金面上项目“NO<sub>3</sub>和NH<sub>3</sub>在PM<sub>2.5</sub>形成过程中化学行为研究”** (2013-2016), 主持;



**国家自然科学基金面上项目**“气溶胶对夜间大气化学过程和NO<sub>x</sub>清除效率影响研究” (2010-2012) , 主持;

**国家气象行业专项研究**“多波段多模态高光谱大气成分反演方法研究” (2011-2013) , 主持;

**国家“863”项目子课题**“污染空间分布算法及软件” (2010-2012) , 主持;

**国家“863”资源与环境领域研究课题**“基于自然光源的被动差分光学吸收光谱仪的研究” (2007-2009) , 主持;

**国家科技支撑计划**“科学仪器设备研制与开发”项目“环境检测专用仪器产业化示范”课题; (2007-2010) , 课题负责人;

上海市浦东新区环境监测站合作项目“浦东新区臭氧浓度时空分布特征及影响因素研究” (2018-2019) , 项目负责人

上海市浦东新区环境监测站合作项目“浦东新区大气中氨的时空分布及其对城市细颗粒物污染的影响” (2017) , 项目负责人

上海市环境监测中心合作项目“上海石化及金山二工区在线数据挖掘及超标报警分析” (2018) , 项目负责人

上海市环境监测中心合作项目“上海石化及金山二工区在线数据挖掘及超标报警分析” (2017) , 项目负责人

上海市环境监测中心合作项目“上海石化及金山二工区在线数据挖掘及超标报警分析” (2016) , 项目负责人

上海市环保局环项目“上海市臭氧污染特征与预警预报研究” (2014-2015) , 项目负责人

上海市科学技术委员会项目“中心城区地下快速路建设关键技术研究” (2012-2014) , 项目负责人

上海市环保局环项目“上海市氨排放现状调查及对大气复合污染形成机制研究” (2013-2014) , 项目负责人

上海市环保局环项目“上海市大气污染物协同减排、空气质量改善技术与控制” (2013-2014) , 课题负责人

上海市环保局环项目“上海市大气有机气溶胶化学组分来源及控制对策研究” (2012-2013) , 项目负责人

## 近期发表论文

“Effects of cleaner ship fuels on air quality and implications for future policy A case study of Chongming Ecological Island in China”, *Journal of Cleaner Production*, 267 (2020) 122088

“Influence of ship direct emission on HONO sources in channel environment”, *Atmospheric Environment*, 242 (2020) 117819

“Observationally constrained modeling of atmospheric oxidation capacity and photochemical reactivity in Shanghai, China”, *Atmos. Chem. Phys.*, 20, 1217–1232, 2020

“Spatio-temporal variations in NO<sub>2</sub> and SO<sub>2</sub> over Shanghai and Chongming Eco-Island measured by Ozone Monitoring Instrument (OMI) during 2008-2017”, *Journal of Cleaner Production*, 258 (2020) 120563

“Surveillance of SO<sub>2</sub> and NO<sub>2</sub> from ship emissions by MAX-DOAS measurements and the implications regarding fuel sulfur content compliance”, *Atmos. Chem. Phys.*, 19, 13611–13626, 2019

“Potential Effect of Halogens on Atmospheric Oxidation and Air Quality in China”, *JGR Atmospheres*, (2019) 10.1029/2019JD032058

“Application of temperature dependent ozone absorption cross-sections in total ozone retrieval at Kunming and Hohenpeissenberg stations”, *Atmospheric Environment*, 215 (2019) 116890

“Verification of satellite ozone/temperature profile products and ozone effective height/temperature over Kunming, China”, *Science of the Total Environment*, 661 (2019) 35–47

“Aerosol Optical Radiation Properties in Kunming (the Low-Latitude Plateau of China) and Their Relationship to the Monsoon Circulation Index”, *Remote Sens.* 2019, 11, 2911; doi:10.3390/rs11242911

“Aerosol vertical profile retrieved from ground-based MAX-DOAS observation and characteristic distribution during wintertime in Shanghai, China”, *Atmospheric Environment*, 192 (2018) 193–205



“OMI satellite observed formaldehyde column from 2006 to 2015 over Xishuangbanna, southwest China, and validation using ground based zenith-sky DOAS”, *Science of the Total Environment*, 613–614 (2018) 168–175

“Study on the daytime OH radical and implication for its relationship with fine particles over megacity of Shanghai, China”, *Atmospheric Environment*, 154 (2017) 167-178

“On the summertime air quality and related photochemical processes in the megacity Shanghai, China”, *Science of the Total Environment* 580 (2017) 974–983

“Intense secondary aerosol formation due to strong atmospheric photochemical reactions in summer observations at a rural site in eastern Yangtze River Delta of China”, *SCIENCE OF THE TOTAL ENVIRONMEN*, 571 (2016) 1454–1466

“Eco-toxicological bioassay of atmospheric fine particulate matter (PM<sub>2.5</sub>) with *Photobacterium Phosphoreum* T3” *Ecotoxicology and Environmental Safety* ,133(2016)226–234

“Measurements of nitrous acid (HONO) in urban area of Shanghai, China”, *Environ Sci. Pollut. Res.*, 23:5818–5829 DOI 10.1007/s11356-015-5797-4, 2016

“Strong atmospheric new particle formation in winter in urban Shanghai, China”, *Atmos. Chem. Phys.*, 15, 1769–1781, 2015

“Atmospheric ammonia and its impacts on regional air quality over the megacity of Shanghai, China”, *Scientific Reports (SCI)* | 5:15842 | DOI: 10.1038/srep15842, 2015

“Investigation of Ground-Level Ozone and High-Pollution Episodes in a Megacity of Eastern China”, *PLOS ONE (SCI)* | DOI:10.1371/journal.pone.0131878,2015

“Gas-phase ammonia and PM<sub>2.5</sub> ammonium in a busy traffic area of Nanjing, China”, *Environ Sci Pollut Res (SCI)*, DOI 10.1007/s11356-015-5397-3,2015

“Study on the Traffic Air Pollution inside and outside a Road Tunnel in Shanghai, China”, *PLoS ONE (SCI)* 9(11): e112195. doi:10.1371/journal.pone.0112195,2014

“A study of aerosol optical properties during ozone pollution episodes in 2013 over Shanghai, China”, *Atmospheric Research (SCI)* 153 (2015) 235–249,2014

“Urban atmospheric formaldehyde concentrations measured by a differential optical absorption spectroscopy method”, *Environmental Science Processes & Impacts (SCI)* , DOI: 10.1039/c3em00545c, 2014

“Long-term observation of atmospheric nitrous acid (HONO) and its implication to local NO<sub>2</sub> levels in Shanghai, China”, *Atmospheric Environment (SCI)* 77 (2013) 718-724, 2013

“Aerosol optical properties during dust and biomass burning episodes retrieved from sun-photometer over Shanghai”, *Atmos. Meas. Tech. Discuss*, 6, 11011–11054, 2013doi:10.5194/amtd-6-11011, 2013

“Observation of NO<sub>3</sub> radicals over Shanghai, China”, *Atmospheric Environment (SCI)* , 64 (2013) 401-409, 2013

“Chemical Composition of PM<sub>2.5</sub> at an Urban Site of Chengdu in Southwestern Chinas”, *Advances in Atmospheric Sciences (SCI)* , Vol. 30, No.4,1070-1084 2013

“Characteristics and ship traffic source identification of air pollutants in China’s largest port”, *Atmospheric Environment (SCI)* , 64 (2013) , 277-286

“Remote sensing of NO<sub>2</sub> emission from the central urban area of Shanghai (China) using the mobile DOAS technique”



“Correlation between atmospheric O<sub>4</sub> and H<sub>2</sub>O absorption in visible band and its implication to dust and haze events in Shanghai, China”, *Atmospheric Environment (SCI)* , 62 (2012) 164-171

“Tropospheric NO<sub>2</sub> column densities deduced from zenith-sky DOAS measurements in Shanghai, China, and their application to satellite validation”, *Atmos. Chem. Phys.* 9, 3641–3662, 2009;

---

地址：上海市杨浦区邯郸路220号 | 邮编：200433

Copyright©2013 复旦大学版权所有 沪ICP备：042465

