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【概述】郑春苗，美国威斯康星（麦迪逊）大学博士、美国地球物理联合会 (AGU) 会士、美国地质学会 (GSA) 会士。现任宁波东方理工大学（暂名）讲席教授、副校长，兼任南方科技大学环境学院讲席教授、深圳可持续发展研究院院长。曾任南方科技大学环境学院创院院长、分管国际事务的校长办公会成员，北京大学讲席教授、水科学研究中心首任主任，美国阿拉巴马大学地质科学系助理教授至 George Lindahl 冠名讲席教授。发表了专著 6 部，包括 *Applied Contaminant Transport Modeling* (Wiley 出版社)，以及 SCI 论文 400 余篇，Google Scholar 被引总数超 2.17 万次（2023.7.1 检索），研究涉及地下水污染机理与修复技术、流域生态水文过程、以及新型污染物生态环境健康风险等。开发了地下水污染模拟标准软件 MT3D 和 MT3DMS，在 100 多个国家得到广泛使用。目前担任国际期刊 *Sustainable Horizons* 共同主编，曾任包括 *Water Resources Research* 在内的 5 份国际水资源领域权威刊物副主编、美国国家研究理事会 (National Research Council) 水文科学核心小组成员、国际水文科协 (IAHS) 国际地下水委员会主席。2006 年获得国家自然科学基金委海外青年合作基金 (海外杰青)。学术兼职包括国家环境保护流域地表水-地下水污染综合防治重点实验室主任、国家自然科学基金委重大研究计划“西南河流源区径流变化和适应性利用”专家指导组副组长、生态环境部土壤生态环境保护专家咨询委员会成员、国家自然科学基金委环境地球科学学科咨询专家组成员。学术荣誉包括美国地下水协会 John Hem 杰出贡献奖 (1998)、美国地质学会 Birdsall-Dreiss 杰出讲席奖 (2009)、美国地质学会 O.E. Meinzer 奖 (国际水文地质界最高荣誉) (2013)、美国地下水协会 M. King Hubbert 奖 (该协会最高科学奖) (2013)。入选斯坦福大学发布的“全球前 2%顶尖科学家”榜单和爱思唯尔发布的“中国高被引学者”榜单。

## 教育背景

1985-1988：博士（主修水文地质、辅修环境工程），美国威斯康星（麦迪逊）大学
1983-1984：教育部出国代培研究生，成都理工大学（原成都地质学院）
1979-1983：学士（水文地质），成都理工大学（原成都地质学院）

## 工作经历

2022-现在：宁波东方理工大学（暂名） 讲席教授、副校长
2022-现在：南方科技大学 讲席教授、深圳可持续发展研究院院长
2018-2022：南方科技大学 讲席教授、校长办公会成员、国际合作部部长
2015-2018：南方科技大学 讲席教授、环境科学与工程学院创院院长
2010-2018：北京大学 讲席教授、水科学研究中心首任主任（2013 前和 2015 后为过渡期）
2010-2018：美国阿拉巴马大学地质科学系 George Lindahl 讲席教授（2013 开始停薪留职）
2002-2009：美国阿拉巴马大学地质科学系 教授
1997-2002：美国阿拉巴马大学地球科学系 副教授（终身职）
1993-1997：美国阿拉巴马大学地球科学系 助理教授
1988-1993：美国 S.S. Papadopulos & Associates, Inc.环境与水资源咨询公司水文地质专家

## 学术经历

2021-现在：长江保护与绿色发展研究院 访问讲席教授
2018-现在：美国阿拉巴马大学地质科学系 客座教授
2001：英国谢菲尔德大学土木工程系 访问学者
2000：美国斯坦福大学地质与环境科学系 访问副教授
1995：澳大利亚国家原子能科学技术机构 访问学者

## 获奖及荣誉

2019：美国地球物理联合会会士（AGU Fellow）
2014：美国威斯康星大学（麦迪逊）地学系杰出校友奖（Distinguished Alumni Award）
2013：美国地质学会迈因策尔奖（O.E. Meinzer Award）
2013：美国地下水协会金·哈博奖（M. King Hubbert Award）
2010：北京大学“国家特聘讲席教授”
2009：美国地质学会水文地质杰出讲席奖（Birdsall-Dreiss Distinguished Lecturer）
2008：美国特拉华大学 DuPont Lecturer
2006：中国国家自然科学基金委海外青年合作基金（海外杰青）
2005：美国德克萨斯大学 Oliver Lecturer
1999：美国地质学会会士（GSA Fellow）
1998：美国地下水协会 John Hem 杰出贡献奖

## 学术兼职（部分）

2023-现在：美国地球物理联合会（AGU）会士遴选委员会水文科学分委员会成员
2021-现在：国际学术期刊《Sustainable Horizons》创始人、共同主编
2019-现在：国家自然科学基金委环境地球科学学科咨询专家组成员
2018-现在：生态环境部土壤生态环境保护专家咨询委员会成员
2018-现在：国家环境保护流域地表水-地下水污染综合防治重点实验室主任
2017-现在：广东省土壤与地下水污染防控及修复重点实验室主任
2016-现在：国际学术期刊《Vadose Zone Journal》副主编
2015-现在：国家基金委重大研究计划“西南河流源区径流变化和适应性利用”指导专家组副组长
2013-2018：地质学报（英文版）《Acta Geologica Sinica》副主编
2010-2015：国际学术期刊《Water Resources Research》副主编
2010-2018：国家基金委重大研究计划“黑河流域生态水文过程集成研究”专家组成员
2007-2014：国际学术期刊《Journal of Hydrology》副主编
2007-2013：国际水文科协（IAHS）国际地下水委员会当选主席、主席
2005-2015：美国国家研究委员会(National Research Council) 水文科学核心小组成员
2005-2007：美国大学水文科学联合会(CUAHSI)行政负责人之一（Treasurer）
2003-2007：国际学术期刊《Hydrogeology Journal》副主编
2003-2004：国际中国地球科学促进会（IPACES）2003-04 年度主席
1998-至今：国际地下水模拟学术会议系列“MODFLOW and MORE”组织人
1998-2010：国际学术刊物《Ground Water》副主编及软件版主编

## 研究领域

- 全球变化及新型污染物对地下水可持续利用的影响
- 流域生态-水文过程的集成研究
- 地下水污染物迁移过程与生物地球化学反应的理论及试验研究
- 地表水-地下水耦合机理及数值模拟

## 12 篇代表作（*通讯作者）

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**Zheng, C.,** Z. Guo, 2022, Plans to protect China’s depleted groundwater resources, *Science*, 375 (6583), 827-827, doi: 10.1126/science.abn8377 (评论文章).

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Ben, Y., C. Fu, M. Hu, L. Liu, M. H. Wong, **C. Zheng***, 2019, Human health risk assessment of antibiotic resistance associated with antibiotic residues in the environment: A Review, *Environmental Research*, 169, 483-493 (热点及高被引论文).

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**Zheng, C.** and G.D. Bennett, 2002, *Applied Contaminant Transport Modeling, 2nd edition*, John Wiley & Sons, New York, 621 pp. (专著)

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## 论文专著（*通讯作者；Google Scholar 总引用数 21771，2023. 7. 1 检索）

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Guo, Z., G.E. Fogg*, K. Chen, R. Pauloo, **C. Zheng***, 2023, Sustainability of regional groundwater quality in response to managed aquifer recharge, *Water Resour. Res.*, 59(1), e2021WR031459, doi: 10.1029/2021WR031459.

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Zhou, H., X. Kuang, Y. Hao, C. Wang, Y. Feng, Y. Zou, M. Zhu, **C. Zheng**, 2023, Magmatic fluid input controlling the geochemical and isotopic characteristics of geothermal waters along the Yadong-Gulu rift, southern Tibetan Plateau, *Journal of Hydrology*, 619, 129196. doi: 10.1016/j.jhydrol.2023.129196.

Chen, K., M. Yin, Z. Guo, X. Liang, X. Wei, S. Yang, X. Zhai, **C. Zheng***, 2023, Estimating lateral groundwater inflow to rivers using heat as a tracer, *Journal of Hydrology*, 617, 128965.

Guo, Z., K. Chen, S. Yi, **C. Zheng***, 2023, Response of groundwater quality to river-aquifer interactions during managed aquifer recharge: A reactive transport modeling analysis, *Journal of Hydrology*, 616, 128847.

Jing, H., X. He, Y. Tian, M. Lancia, G. Cao, A. Crivellari, Z. Guo, **C. Zheng***, 2023, Comparison and interpretation of data-driven models for simulating site-specific human-impacted groundwater dynamics in the North China Plain, *Journal of Hydrology*, 616, 128751.

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**Zheng, C**., 2022, The winding road of a hydrogeologist, *Perspectives of Earth and Space Scientists*, 3, e2020CN000139, doi: 10.1029/2020CN000139.

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Yu, J., Y. Tian*, X. Wang, X. Wang, M. Lancia, H. Li, C.B. Andrews, **C. Zheng***, 2022, A New simulation-optimization framework for estimation of submarine groundwater discharge based on hydrodynamic Modeling and Isotopic Data, *Geophysical Research Letter*s, 49, e2022GL098893..

Xuan, R., W. Qiu, Y. Zhou, J.T. Magnuson, S. Luo, J.B. Greer, B. Xu, J. Liu, E.G. Xu, D. Schlenk, **C. Zheng**, 2022, Parental transfer of an antibiotic mixture induces cardiotoxicity in early life-stage zebrafish: A cross-generational study, *Sci Total Environ*, 849, 157726.

Xu, S., S. Zheng, Z. Huang, L. Song, Y. Long, X. Zhan, L. Jiang, Y. Wang, Y. Shu, **C. Zheng**, 2022, Assessing progress towards sustainable development in Shenzhen 2005–2019, *Journal of Cleaner Production*, 349, 131496.

Xiao, K., F. Pan, I.R. Santos, Y. Zheng, **C. Zheng**, N. Chen, Z. Lu, F. Wang, Z. Li, H. Li, 2022, Crab bioturbation drives coupled iron-phosphate-sulfide cycling in mangrove and salt marsh soils, *Geoderma*, 424, 115990.

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Shuai, C., B. Zhao, X. Chen, J. Liu, **C. Zheng**, S. Qu, J.-P. Zou, M. Xu, 2022, Quantifying the impacts of COVID-19 on Sustainable Development Goals using machine learning models, *Fundamental Research*, doi: 10.1016/j.fmre.2022.06.016.

Ma, R., M. Yan, P. Han, T. Wang, B. Li, S. Zhou, T. Zheng, Y. Hu, A.G.L. Borthwick, **C. Zheng**, J. Ni, 2022, Deficiency and excess of groundwater iodine and their health associations, *Nature Communications*, 13, 7354.

Lu, M., X. Wang, H. Li, J.J. Jiao, X. Luo, M. Luo, S. Yu, K. Xiao, X. Li, W. Qiu, **C. Zheng**, 2022, Microbial community assembly and co-occurrence relationship in sediments of the river-dominated estuary and the adjacent shelf in the wet season, *Environmental Pollution*, 308, 119572.

Li, Z., F. Pan, K. Xiao, H. Li, **C. Zheng**, X. Wang, Y. Zhang, Q. Wang, L. Zhang, 2022, An integrated study of the spatiotemporal character, pollution assessment, and migration mechanism of heavy metals in the groundwater of a subtropical mangrove wetland, *Journal of Hydrology*, 612 128251.

Li, X., G. Cheng, B. Fu, J. Xia, L. Zhang, D. Yang, **C. Zheng**, S. Liu, X. Li, C. Song, S. Kang, X. Li, T. Che, Y. Zheng, Y. Zhou, H. Wang, Y. Ran, 2022, Linking Critical Zone With Watershed Science: The Example of the Heihe River Basin, *Earth's Future*, 10, e2022EF002966.

Kong, L., Q. Yan, Y. Wang, Q. Wang, C.B. Andrews, **C. Zheng***, 2022, Self-supported trimetallic NiZnLa nanosheets on hierarchical porous graphene oxide-polymer composite fibers for enhanced phosphate removal from water, *Journal of Colloid and Interface Science,* 628, 807-818.

Huang, J., Y. Zhou, S. Deng, Y. Shangguan, R. Wang, Q. Ge, X. Feng, Z. Yang, Y. Ji, T. Fan, B. Chen, B. Li, **C. Zheng**, X. Hu, H. Chen, 2022, Photo-assisted reductive cleavage and catalytic hydrolysis-mediated persulfate activation by mixed redox-couple-involved CuFeS2 for efficient trichloroethylene oxidation in groundwater, *Water Research*, 222, 118885..

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## 中文专著（含编译）

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## 计算机软件

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**（下页继续到“获得资助科研项目”）**

## 获得资助科研项目

1. 宁波市重点研发计划，城市水体三维仿真、预警及水土共治体系应用研究，2023-2025，主持（依托宁波东方理工大学）。
2. 深圳市可持续发展专项，KCXFZ20201221173410029（专 2021N039）， 深圳饮用水水源地与供水系统全体系动态风险评估预警和应急管理关键技术研发及应用，2021-2024，主持（依托南方科技大学）。
3. 科技部/教育部高等学校学科创新引智计划（“111 计划”），环境科学与工程学科创新引智基地，2020-2024，主持（依托南方科技大学）。
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7. 广东省级科技计划项目，2017B030301012，广东省土壤与地下水污染防控及修复重点实验室，2017-2019，主持（依托南方科技大学）。
8. 广东省引进领军人才项目，2016LJ06N469，地下水污染修复技术研发与集成，2017-2022，主持（依托南方科技大学）。
9. 科技部国家重点研发计划项目课题，2016YFC0402806，海水入侵模拟与预测技术方法及软件平台研发，2016-2020，主持（依托南方科技大学）。
10. 深圳发展改革委员会深圳市战略新兴产业发展专项，环境保护与资源高效利用学科建设，2017-2019，主持（依托南方科技大学）。
11. 深圳市海外高层次人才创新创业团队，KQTD2016022619584022，深圳市水环境污染的综合治理与生态修复，2016-2021，主持（依托南方科技大学）。
12. 深圳市科技计划项目，ZDSY20150831141712549，深圳市土壤与地下水污染防治重点实验室，2015-2018，主持（依托南方科技大学）。
13. 国家自然科学基金重大研究计划集成项目，91425303，黑河流域水-生态-经济系统的集成模拟与预测，2015-2018，共同负责人（依托北京大学）。
14. 国家自然科学基金重点项目，41330632，小尺度优先水流通道对地下水污染物迁移过程和修复的控制作用：基于野外试验的基础研究，2014-2018，主持（依托北京大学）。
15. 国家自然科学基金重大研究计划集成项目，91225301，黑河流域中下游生态水文过程的系统行为与调控研究，2013-2016，主持（依托北京大学）。
16. 环境保护部环保公益性行业专项，201309005，稀土尾矿库周边地下水溶质迁移与水文地球化学耦合模型研究，2013-2015，主持 （依托北京大学）。
17. 环境保护部《全国地下水污染防治规划（2011—2020 年）》项目，全国地下水基础环境状况调查评估，2011-2017，专题负责人（依托北京大学、南方科技大学）。
18. 中国地质调查局地质调查项目，1212011121174，地下水污染迁移过程研究与数值模拟，2011-2013，主持（依托北京大学）。
19. Collaborative Research: High-resolution dynamic characterization of transport pathways: providing new insights into subsurface processes, National Science Foundation, 2008-12, PI (through University of Alabama).
20. Optimal management of coastal aquifers against seawater intrusion, Baldwin County, Alabama, NOAA through the state of Alabama, 2008-2009, PI (through University of Alabama).
21. With John Zachara (PI) and 17 co-PIs, Multi-scale mass transfer processes controlling natural attenuation and engineered remediation: An Integrated Field Challenge (IFC) focused on Hanford’s 300 Area uranium plume, Department of Energy, 2007-2012, co-PI (through University of Alabama).

22. Accurate determination of groundwater recharge on the North China Plain through environmental tracers and 3D numerical modeling, Sino-German International Collaborative Research Program, National Natural Science Foundation of China, 2010-2012, PI (through Peking University).
23. A Coupled surface water-groundwater model for understanding hydrologic processes and water quality evolution in the North China Plain (NCP), Ministry of Science and Technology of China, 2007-2011, PI (through Peking University).
24. Spatial distribution of groundwater ages in a large sedimentary basin: Numerical simulation and application, National Natural Science Foundation of China, 2007-2009, PI (through Peking University).
25. Collaborative Research: Solute transport in aquifers containing connected high-conductivity networks: theory founded on laboratory and field data, National Science Foundation, 2006-2009, PI (through University of Alabama).
26. Development of modeling methods and tools for predicting coupled reactive transport processes in porous media at multiple scales, Department of Energy, 2006-2009, PI of subaward to University of Alabama.
27. Discrete fracture network models for risk assessment of carbon sequestration in coal, Department of Energy, 2005-2008, PI of subaward to University of Alabama.
28. Sustainable groundwater management of coastal aquifers in Baldwin County, Alabama, NOAA through the state of Alabama, 2005-2007, PI (through University of Alabama).
29. Reliability considerations in groundwater remediation system and monitoring network design, DuPont Company, 2005-2006, PI (through University of Alabama).
30. Development of information infrastructure for hydrological sciences, National Science Foundation, 2004-2005, PI of subaward to University of Alabama.
31. Groundwater study of Ft. Morgan Peninsula, Baldwin County, NOAA through the state of Alabama, 2004-2005, PI (through University of Alabama).
32. Further development of the MT3DMS contaminant transport model for linkage with the Army Risk Assessment Modeling System, Army Engineer Research and Development Center, 2003-2004, PI (through University of Alabama).
33. Further development of the ModGA code for contaminant source identification, DuPont Company, 2003-2004. PI (through University of Alabama).
34. Acquisition of geophysical field equipment for earth science research and teaching at the University of Alabama, NSF, 2002-2004, Co-PI.
35. With Jimmy Jiao (University of Hong Kong), Modification of regional groundwater regimes by large-scale land reclamation, Research Grants Council of Hong Kong, 2002-2005, Co-PI (through University of Alabama).
36. Collaborative Research: A systematic study of solute transport influenced by preferential flow paths at the decimeter and smaller scales, NSF, 2001-2005, PI (through University of Alabama). Field demonstration of transport optimization modeling for reducing the costs of groundwater pump-and-treat systems, Department of Defense Environmental Security Technology Certification Program (ESTCP), 2000-2003, PI (through University of Alabama).
38. Further development of the ModGA code for monitoring network design optimization, DuPont Company, 2002-2003. PI (through University of Alabama).
39. With Amy Ward (Project Director, University of Alabama) and 17 others at University of Alabama and University of New Mexico, Integrated Graduate Education Research Training (IGERT) Program in Freshwater Sciences, NSF, 1999-2004, co-investigator and leader of the solute transport research theme (through University of Alabama).
40. With Jimmy Jiao (University of Hong Kong), Origin and evolution of abnormal fluid pressures in the Shiwu area in northeastern China, Research Grants Council of Hong Kong, 1999-2002, Co-PI (through University of Alabama).
41. Multi-fractal scaling of hydraulic conductivity distributions and the effect on plume-scale contaminant transport, National Science Foundation, 1997-2000, PI of subaward to University Alabama.
42. Subsurface site characterization via a computer-aided tool, Gulf Coast Hazardous Substance Research Center, US EPA, 1998-2000, Co-PI (through University of Alabama).

43. Development and application of a multicomponent solute transport simulator for the Department of Defense Groundwater Modeling System (GMS), US Army Engineer Research and Development Center, 1996-2000, PI (through University of Alabama).
44. Incorporation of variably saturated flow and contaminant transport in the groundwater flow and transport optimization model ModGA, DuPont Chemical, 1998-1999, PI (through University of Alabama).
45. Modeling biologically reactive contaminant transport and natural attenuation, Pacific Northwest National Laboratory, Department of Energy, 1997-1998, PI (through University of Alabama).
46. A global optimization approach for parameter identification in contaminant transport modeling, U.S. Environmental Protection Agency, 1995-1997, PI (through University of Alabama).
47. Development of a simulation-optimization model for groundwater management and remediation designs, DuPont Company, 1995-1998, PI (through University of Alabama).
48. Parameter identification using genetic algorithms, DuPont Company, 1995-1996, PI.
49. Simulation of reactive tracer transport in a strongly heterogeneous aquifer, Cray Research, Inc., 1995-1996, PI (through University of Alabama).
50. Augmentation of optimal policy selections to groundwater contaminant transport model MT3D (Phases I and II), USGS through Alabama Water Resources Research Institute, 1994-1995, Co-PI (through University of Alabama).
51. Development of an advanced contaminant fate and transport simulator for Cray supercomputers, Cray Research, Inc., 1994-1995, PI (through University of Alabama).
52. An investigation of underpressured geological formations for disposal of hazardous wastes, State of Alabama through UA School of Mines and Energy Development, 1994-95, PI (through University of Alabama).
53. A graduate fellowship to support Ph.D. research in hydrogeology, S.S. Papadopulos & Associates, Inc., 1994-1995, PI (through University of Alabama).