

● 个人简介

刘冬, 男, 博士, 硕士生导师, 2019年6月在华东师范大学取得理学博士学位。主要研究方向包括: 功能纳米材料的开发及其在空气有害气体检测中的应用; 水体污染物检测、消减及其环境行为分析。参与国家自然科学基金项目2项, 上海市浦东新区科技发展基金项目1项, 教育部产学研合作协同育人项目1项, 主持河南省科技攻关项目2项, 在 *Chemical Engineering Journal*、*Journal of Hazardous Materials*、*Journal of Colloid and Interface Science*、*Chemosphere*、*Applied Surface Science*、材料研究与应用、食品研究与开发等国内外高水平期刊上发表学术论文20余篇, 入选ESI高被引论文2篇, 申请国家发明专利7项。承担水质理化检验、细菌学检验、卫生微生物学、现代卫生检验技术等本科生和研究生课程。



● 联系方式

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● 研究方向

功能纳米材料的开发及其在空气有害气体检测中的应用; 水体污染物检测、消减及其环境行为分析

● 招生方向

学硕: 劳动卫生与环境卫生学(环境有害因素检测技术)

专硕: 卫生检验(卫生检验理化分析)

● 教育经历

2008/09-2012/07, 河南科技学院, 生物技术, 理学学士

2012/09-2015/07, 河南师范大学, 微生物学, 理学硕士

2015/09-2019/06, 华东师范大学, 材料与光电子, 理学博士

● 工作经历

2023/03-至今, 新乡医学院, 公共卫生学院, 副教授

2019/06-2023/02, 新乡医学院, 公共卫生学院, 讲师

● 承担项目

(1) 三维 Nb₂O₅ 基光热催化体系增效降解水中微塑料协同产氢的应用研究, 河南省科技攻关项目, 0 万元, 主持, 2024.01-2025.12, No: 242102320095, 在研。

(2) 高效富缺陷三维 g-C₃N₄ 基 Z 型光催化体系的开发及其在降解药活性化合物中的应用研究, 河南省科技攻关项目, 10 万元, 主持, 2021.01-2022.12, No: 212102210121, 在研。

(3) 改性二氧化钛薄膜电极光电催化降解水中 PPCPs 的研究, 新乡医学院博士科研启动项目, 150 万元, 主持, 2020.01-2024.12, No: 505343, 在研。

(4) 基于 3D-COFs/M 光-热-金属协同增效活化 PMS 体系的构建及其降解抗生素的效能与机理研究, 国家自然科学基金面上项目, 54 万元, 参与, 2023.01-2026.12, No: 22276159, 在研。

(5) 新医科背景下《卫生微生物学》创新实践教学的研究与探索, 教育部产学研合作协同育人项目, 5 万元, 参与, 2021.01-2022.12, No: 202002024027, 在研。

(6) 水相中 Cl⁻、Fe(III)对多溴联苯醚光化学转化过程中活性物种形成的影响机制研究, 国家自然科学基金青年科学基金项目, 24 万元, 参与, 2018.01-2020.12, No: 21707115, 结题。

(7) 高盐有机废水光电催化处理技术的研发及应用, 上海市浦东新区科技发展基金项目, 44.8 万元, 参与, 2016.01-2017.12, No: PKJ2015-C10, 结题。

- (1) **Dong Liu***, Minghui Chen, Tianqi Niu, Roujie Ma, Congyue Zhao, Jianing Qian, Xiaozhou Xie, Likun Pan*, Weidong Wu, Tianjun Ni*. Three-dimensional crosslinked structure assembled by novel elemental iodine doped Nb₂O₅ ultrathin nanosheets for exceptional visible-light photocatalytic performance [J]. *Chem. Eng. J.*, 2024, 493: 152625.
- (2) **Dong Liu***, Congyue Zhao, Minghui Chen, Yawen Yang, Jianing Qian, Xiaozhou Xie, Likun Pan*, Fengquan Zhang, Ling Tao, Weidong Wu, Tianjun Ni*. Enhanced visible light photocatalytic performance of carbon and oxygen co-doped carbon nitride with a three-dimensional structure: Performance and mechanism study [J]. *J. Colloid Interf. Sci.*, 2024, 665, 452-464.
- (3) **Dong Liu***, Chunling Li, Congyue Zhao, Qian Zhao, Tianqi Niu, Likun Pan*, Pengwei Xu, Fengquan Zhang, Weidong Wu, Tianjun Ni*. Facile synthesis of three-dimensional hollow porous carbon doped polymeric carbon nitride with highly efficient photocatalytic performance [J]. *Chem. Eng. J.*, 2022, 438: 135623.
- (4) **Dong Liu***, Chunling Li, Jiayu Ge, Congyue Zhao, Qian Zhao*, Fengquan Zhang, Tianjun Ni*, Weidong Wu. 3D interconnected g-C₃N₄ hybridized with 2D Ti₃C₂ MXene nanosheets for enhancing visible light photocatalytic hydrogen evolution and dye contaminant elimination [J]. *Appl. Surf. Sci.*, 2022, 579: 152180.
- (5) **Dong Liu***, Huijun Li, Ranpeng Gao, Qian Zhao, Zhongzhi Yang, Xia Gao, Zhe Wang, Fengquan Zhang, Weidong Wu. Enhanced visible light photoelectrocatalytic degradation of tetracycline hydrochloride by I and P co-doped TiO₂ photoelectrode [J]. *J. Hazard. Mater.*, 2021, 406: 124309.
- (6) **Dong Liu**, Jianqiao Wang, Jun Zhou, Qinghua Xi, Xin Li, Er Nie*, Xianqing Piao, Zhuo Sun*. Fabricating I doped TiO₂ photoelectrode for the degradation of diclofenac: Performance and mechanism study [J]. *Chem. Eng. J.*, 2019, 369: 968-978.
- (7) **Dong Liu**, Jun Zhou, Jianqiao Wang, Renwen Tian, Xin Li, Er Nie*, Xianqing Piao, Zhuo Sun. Enhanced visible light photoelectrocatalytic degradation of organic contaminants by F and Sn co-doped TiO₂ photoelectrode [J]. *Chem. Eng. J.*, 2018, 344: 332-341.
- (8) **Dong Liu**, Renwen Tian, Jianqiao Wang, Er Nie*, Xianqing Piao, Xin Li, Zhuo Sun. Photoelectrocatalytic degradation of methylene blue using F doped TiO₂ photoelectrode under visible light irradiation [J]. *Chemosphere*, 2017, 185: 574-581.
- (9) **Dong Liu***, Chunling Li, Tianjun Ni, Ranpeng Gao, Jiayu Ge, Fengquan Zhang, Weidong Wu, Jinliang Li, Qian Zhao*. 3D interconnected porous g-C₃N₄ hybridized with Fe₂O₃ quantum dots for enhanced photo-Fenton performance [J]. *Appl. Surf. Sci.*, 2021, 555: 149677.
- (10) Tianjun Ni*, Zhibin Yang, Hui Zhang, Liping Zhou, Wei Guo, Likun Pan*, Zhijun Yang, Kaiwen Chang, Chunpo Ge, **Dong Liu***. Peroxymonosulfate activation by Co₃O₄/SnO₂ for efficient degradation of ofloxacin under visible light [J]. *J. Colloid Interf. Sci.*, 2022, 615, 650-662.
- (11) **Dong Liu***, Chunling Li, Congyue Zhao, Er Nie*, Jianqiao Wang, Jun Zhou, Qian Zhao*. Efficient dye contaminant elimination and simultaneously electricity production via a Bi-doped TiO₂ photocatalytic fuel cell [J]. *Nanomaterials*, 2022, 12: 210.
- (12) Tianjun Ni, Hui Zhang, Zhibin Yang, Liping Zhou, Likun Pan*, Chunling Li, Zhijun Yang, **Dong Liu***, Enhanced adsorption and catalytic degradation of antibiotics by porous 0D/3D Co₃O₄/g-C₃N₄ activated peroxydisulfate: An experimental and mechanistic study [J]. *J. Colloid Interf. Sci.*, 2022, 625, 466-478.
- (13) Tianjun Ni, Zhibin Yang, Hui Zhang, Liping Zhou, Wei Guo, **Dong Liu***, Kaiwen Chang, Chunpo Ge, Zhijun Yang*, Visible light assisted peroxydisulfate activation by NiO/SnO₂ composite for efficient tetracycline degradation [J]. *Appl. Surf. Sci.*, 2022, 604: 154537.
- (14) Chunling Li, Juan Yin, Bianli Cao, **Dong Liu***, Facile fabrication of 3D interconnected porous boron doped polymeric g-C₃N₄ with enhanced visible light photocatalytic hydrogen evolution and dye contaminant elimination [J]. *Ceram. Int.*, 2023, 49, 6213-6221.

(15) **Dong Liu***, Congyue Zhao, Chunling Li, Jiaojiao Jia, Minghui Chen, Likun Pan*, Yichun Bai, Weidong Wu, Tianjun Ni*, Facile fabrication of 3D hollow porous aminopyridine rings decorated polymeric carbon nitride for enhanced photocatalytic hydrogen evolution and dye elimination [J]. *J. Colloid Interf. Sci.*, 2023, 649, 334–343.

(16) Congyue Zhao, Chunling Li, Minghui Chen, Tianqi Niu, Qian Zhao, Tianjun Ni*, Dong Yan, Weidong Wu, **Dong Liu***, Effective removal of antineoplastic doxorubicin by 0D Nb₂O₅ quantum dots embed 3D porous C-doped g-C₃N₄: Degradation mechanism, pathway and toxicity assessment [J]. *Appl. Surf. Sci.*, 2023, 612: 155861.

(17) Congyue Zhao, Hengchao Sun*, Chunling Li, Manrong Wang, Jiahang Wu, Minghui Chen, Shuai Jiang, Tianqi Niu, **Dong Liu***, Facile Synthesis of 3D Interconnected Porous g-C₃N₄/rGO Composite for Hydrogen Production and Dye Elimination [J]. *Catalysts.*, 2023, 13, 1079.

(18) Zhibin Yang, Hui Zhang, Liping Zhou, Zhonghu Dong, Yanyu Wang, **Dong Liu***, Tianjun Ni*, Enhanced activation performance of peroxymonosulfate by NiCo₂O₄/SnO₂ composite for metronidazole degradation under visible light [J]. *J. Alloy. Compd.*, 2023, 949, 169879.

● 申请发明专利

(1) **刘冬**; 陈明慧; 潘翠云; 倪天军; 张丰泉. 一种由超薄纳米片组装的三维碘掺杂 Nb₂O₅ 催化剂的制备方法, 中国, 202410508672.7

(2) **刘冬**; 倪天军; 张丰泉; 李春灵; 赵茜; 高霞; 杨中智. 一种 0D/3D Fe₂O₃ QDs/g-C₃N₄ 杂化光芬顿催化剂的制备方法, 中国, 202110639279

(3) **刘冬**; 李春灵; 赵茜; 牛天琦; 高霞; 杨中智. 一种三维多孔原位碳掺杂 g-C₃N₄ 催化剂的制备方法, 中国, 202111217403

(4) **刘冬**; 潘翠云; 牛天琦; 倪天军; 赵茜; 张丰泉; 李春灵. 一种富缺陷三维交联 g-C₃N₄ 杂化二维 Ti₃C₂ MXene 光催化剂的制备方法, 中国, 2021113850292

(5) **刘冬**; 潘翠云; 倪天军; 赵茜; 牛天琦; 李春灵. 一种富缺陷三维多孔原位碳掺杂 g-C₃N₄ 催化剂的制备方法, 中国, 202111384708

(6) 孙卓, **刘冬**, 聂耳, 张哲娟, 李欣, 田人文, 一种处理氨氮废水的纳米氧化物薄膜电极的制备方法, 中国, ZL201610216247.6

(7) 倪天军, 李钱生, **刘冬**, 齐巧芳, 常开文, 闫云辉, 杨志军, 汪应灵, 一种 N,Cu-CDs/m-WO₃ 介孔复合材料及其制备方法和应用, 中国, ZL202011248169.0