



刘昂 硕士生导师

职 称：副教授

职 务：无

研究方向：海工腐蚀与防护

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个人简介

长期致力于海工腐蚀与防护研究，包括基于纳米容器负载的钢筋靶向阻锈技术研究、钢筋混凝土表面功能化防腐防污一体化涂层设计研究、再生混凝土微结构调控与耐久性研究等。主持国家和山东省自然科学基金 2 项，发表高水平学术论文 10 余篇。研究成果获青岛市科技进步奖一等奖、青岛市自然科学二等奖、海洋科学技术奖一等奖等科研奖励。

学习经历

- 20010.09-2014.06，北华航天工业学院材料学院，金属材料工程，工学学士
- 2014.09-2017.06，中国海洋大学材料学院，材料物理与化学，工学硕士
- 2017.09-2020.07，中国科学院海洋研究所，海洋腐蚀与防护，理学博士

工作经历

- 2020.09-至今，青岛理工大学土木工程学院，副教授

学术兼职

- 无

教科研项目

- 2022.01-2024.12，水滑石基海工混凝土防腐防污多功能一体化涂层构建及协同防护机制，山东省自然科学基金青年项目，主持
- 2023.01-2025.12，硅烷改性高负载量 LDHs 的可控制备及其对钢筋混凝土的防腐作用机制，国家

自然科学基金青年项目，主持

学术成果

代表性著作、论文:

- [1] Gao Song, Yuan Ji, Ang Liu*, et al.. The adsorption and diffusion behavior of chloride in recycled aggregate concrete incorporated with calcined LDHs[J]. Cement and Concrete Composites, Accepted, 2024, 01.
- [2] Gao Song, Yuan Ji, Ang Liu*, et al.. A comprehensive analysis of pore structures and performances of mineral admixtures modified recycled aggregate concrete based on experiment and theory[J]. Construction and Building Materials, 2022, 358: 129451.
- [3] Geng Yongjuan, Zhou Peijian, Liu Ang*, et al.. Superior corrosion resistance of mild steel coated with graphene oxide modified silane coating in chlorinated simulated concrete solution[J]. Progress in Organic Coatings, 2022, 164: 106716.
- [4] Geng Yongjuan, Liu Yancen, Liu Ang*, et al.. Improved interfacial interactions and corrosion resistance of epoxy coated reinforcement by pre-electrodeposited silane layer[J]. Progress in Organic Coatings, 2022, 173: 107171.
- [5] Liu Ang, Tian Huiwen, Li Shaochun, et al.. Bioinspired layered hybrid coatings with greatly enhanced barrier effect and active corrosion protection performance[J]. Progress in Organic Coatings, 2021, 152: 106131.
- [6] Liu Ang, Tian Huiwen, Li Weihua, et al.. Direct synthesis of layered double hydroxides monolayer nanosheets for co-assembly of nanobrick wall hybrid film with excellent corrosion resistance[J]. Applied Surface Science, 2019, 493: 239-249.
- [7] Liu Ang, Tian Huiwen, Li Weihua, et al.. Delamination and self-assembly of layered double hydroxides for enhanced loading capacity and corrosion protection performance[J]. Applied Surface Science, 2018, 462: 175-186.

荣誉奖励

- 2019. 7, 青岛市科技进步一等奖, 青岛市人民政府
- 2022. 11, 青岛市科技进步一等奖, 青岛市人民政府
- 2023. 5, 青岛市自然科学二等奖, 青岛市人民政府