Corrosion and Materials Degradation
文献清单：腐蚀与材料降解

作者：writer 来源：科学网

本文原地址：https://www.iikx.com/news/progress/43453.html

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Corrosion and Materials Degradation 文献清单：腐蚀与材料降解。期刊名：Corrosion and Materials Degradation

期刊主页：https://www.mdpi.com/journal/cmd

腐蚀与材料降解是关乎能源、交通、建筑、海洋等重大工程领域装备安全与服役寿命的核心科学问题。近年来，电化学原位表征技术、多尺度计算模拟、智能监测与预测算法、先进防护材料与工艺的快速迭代，不断推动腐蚀科学向机理定量化、技术工程化、运维智能化深度发展。本专题精选了发表于 Corrosion and Materials Degradation 的 15 篇代表性研究成果，覆盖腐蚀电化学机理、缓蚀剂开发、功能涂层防护、混凝土钢筋腐蚀、油气管道失效诊断、高温设备腐蚀预测、应力腐蚀开裂、氢致损伤等多个核心方向，全面展现近两年腐蚀与材料防护领域的前沿突破与工程应用进展，为相关领域科研人员与工程技术人员提供参考。

1. Eco-Efficient Technology for Sustainable Cementitious Composites: Short-Term Response of Limestone, Chalk, and Marble to Magnesium-Induced Chemical Degradation

生态友好型水泥基复合材料技术：石灰石、白垩与大理石对镁盐化学降解的短期响应

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2. The Viability of Sol – Gel Coatings for the Corrosion Protection of NdFeB Permanent Magnets

溶胶 - 凝胶涂层在钕铁硼永磁体腐蚀防护中的应用前景

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3. Long-Term Electrochemical Evaluation of Commercial Surface-Applied Corrosion Inhibitors for Chloride-Contaminated Reinforced Mortar

氯盐污染砂浆中商用表面涂覆缓蚀剂的长期电化学评价

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4. An Experimental and Computational Approach for the Utilization of Expired Escitalopram as a Corrosion Inhibitor for Carbon Steel

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5. An Interpretable Fuzzy-Logic Framework for Diagnosis and Fault-Signature Analysis of Operational, Corrosion, Structural, and Metallurgical Failure Scenarios in an Aged Pipeline Network

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6. Prediction of Corrosion and Related Damage States in High-Temperature Equipment Using Mechanism and Data Fusion

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7. Spatio-Temporal Assessment of the Reliability of Corroded Pipeline Considering Time-Dependent Failure Modes

考虑时变失效模式的腐蚀管道时空可靠性评估

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模拟刷牙对 Ta2O5/ZrO2涂层纯钛表面形貌与电化学稳定性的影响

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10. Corrosion of Studsvik R2 AlMg3.5 Alloy Under Simulated Cementitious Repository Conditions in Fly Ash Concrete Compared to Ordinary Portland Cement Concrete

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11. Corrosion Protection and Sustainability: Why Are the Two Concepts Inherently Intertwined

腐蚀防护与可持续性：为何二者本质上密不可分

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13. Influence of H2S and CO2 Partial Pressures and Temperature on the Corrosion of Superduplex S32750 Stainless Steel

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14. Review of Corrosion Evaluation Methods for Steel Reinforcement in Concrete

混凝土钢筋腐蚀评价方法综述

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15. Influence of Bottom Chloride-Induced Corrosion on Truck Collision Response and Damage of Coastal Reinforced Concrete Bridge Piers

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期刊介绍

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2025 Impact Factor：2.7

2025 CiteScore：4.3

Time to First Decision：25.8 Days

Acceptance to Publication：4.6 Days

来源：Corrosion and Materials Degradation

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