

# STEEL SALVATION

THE ART OF NANOMAGIC FOR UNSTOPPABLE ANTI-CORROSION MARVELS

This comprehensive volume explores the latest advancements in superhydrophobic coatings, designed to tackle the pervasive issue of corrosion in steel structures. Authored by expert researchers from this area. This book offers a deep dive into the formulation, development, and application of hybrid organic and inorganic nanoparticles for superior corrosion resistance. Readers will gain insight into the significant economic and environmental impacts of corrosion, with annual global costs exceeding billions. Traditional protective methods, such as chromate conversion coatings, face growing regulatory restrictions due to health and environmental concerns. This book presents innovative, eco-friendly alternatives that promise to extend the lifespan of critical infrastructure while maintaining high-performance standards. Featuring detailed research on the synthesis of nanostructures, evaluation of mechanical properties, and the development of durable, self-cleaning coatings, this book is an essential resource for materials engineers, researchers, and industry professionals.

"Steel Salvation: The Art of Nanomagic for Unstoppable Anti-Corrosion Marvels" is not just a technical guide but a call to innovate and inspire, setting the stage for the next generation of sustainable materials and practices in the maritime industry and beyond.

Norhasnidawani Johari | Noor Azlina Hassan  
Yahaya Ramli | Siti Hamidah Setapar

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