



Mohammad Mahdavian

Professor

Faculty: Surface Coating and Novel Technologies
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Accomplished Ph.D. in Polymer Engineering specializing in the development of polymeric coatings. As an associate professor at my current institute, I have amassed over a decade of experience spearheading cutting-edge research and executing successful technological projects. As a dedicated mentor, I have guided numerous MSc. and Ph.D. students, focusing on innovation in corrosion protection and coatings. My expertise is reflected in a prolific publication record, with over 200 scientific papers in esteemed international journals. I have been recognized as a top reviewer by WoS and ranked among the top 2% of scientists by Elsevier BV and the University of Stanford.

Fostering a culture of innovation in coatings, I have patented my research findings, some of which have been implemented by companies active in the coating sector. Apart from academic experience, I have gained valuable industrial experience specializing in automotive coatings (three years) and advanced industrial coatings (six years). I am an expert in waterborne, solvent-borne, high-solid, and UV-curable coatings. In addition, I am an expert in surface treatment, surface modification, surface analysis techniques, and data science.

Keywords: Corrosion; Polymer; Coatings; Silane; Surface modification; Surface treatment; Graphene; Graphene oxide; Carbon; Metal-Organic Framework; MOF; Layered Double Hydroxide; LDH; Smart Coatings; Microcapsules; Mesoporous; Inhibitor; Hollow Carbon Sphere; CNT; Clay; Halloysite; Electrochemistry; Electrochemical Techniques; On-demand release; Self-cleaning; Self-repairing; Intumescent; Proposal; Patent; Know-How; UV resistant; UV shielding; Protective Coating Systems; Automotive; OEM; Refinishing; Road mark paints; Floor coatings; UV Curable Coatings; Waterborne Coatings; High solid coatings; Powder Coatings; Resin; Pigment; Python Programming; Machine Learning.

Education			
Degree	Graduated in	Major	University
BSc	2002	Polymer Engineering (specialized on surface coatings)	Amirkabir University of Technology
MSc	2004	Polymer Engineering (specialized on surface coatings)	Amirkabir University of Technology
Doctoral	2009	Polymer Engineering (specialized on surface coatings)	Amirkabir University of Technology

Papers in Journals

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3. Seyyed Arash Haddadi, Ahmad Ramazani S.A., Mohammad Mahdavian, Mohammad Arjmand,Epoxy nanocomposite coatings with enhanced dual active/barrier behavior containing graphene-based carbon hollow spheres as corrosion inhibitor nanoreservoirs,Corrosion Science,2021/6/1.
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11. Mahsa Mahmudzadeh, Hossein Yari, Bahram Ramezanzadeh, Mohammad Mahdavian,Highly potent radical scavenging-anti-oxidant activity of biologically reduced graphene oxide using Nettle extract as a green bio-genic amines-based reductants source instead of hazardous hydrazine hydrate,Journal of

hazardous materials,pp. 609-624,2019/6/5.

12. Reza Samiee, Bahram Ramezanzade, Mohammad Mahdavian, Eiman Alibakhshi, Ghasem Bahlakeh, Graphene oxide nano-sheets loading with praseodymium cations: Adsorption-desorption study, quantum mechanics calculations and dual active-barrier effect for smart coatings fabrication, *Journal of Industrial and Engineering Chemistry*, 2019/6/21.
13. M Mahmudzadeh, H Yari, B Ramezanzadeh, M Mahdavian, *Urtica dioica* extract as a facile green reductant of graphene oxide for UV resistant and corrosion protective polyurethane coating fabrication, *Journal of Industrial and Engineering Chemistry*, 2019/6/21.
14. Seyyed Arash Haddadi, Eiman Alibakhshi, Ghasem Bahlakeh, Bahram Ramezanzadeh, Mohammad Mahdavian, A detailed atomic level computational and electrochemical exploration of the *Juglans regia* green fruit shell extract as a sustainable and highly efficient green corrosion inhibitor for mild steel in 3.5 wt% NaCl solution, *Journal of Molecular Liquids*, pp. 682-699, 2019/6/15.
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55. Sara Khamseh, Eiman Alibakhshi, Mohammad Mahdavian, Mohammad Reza Saeb, Henri Vahabi, Jean , & Sebastien Lecomte, Pascal Laheurte, High-performance hybrid coatings based on diamond-like carbon and copper for carbon steel protection, *Diamond and Related Materials*, pp. 84-92, 2017/11/1.
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