Ali Dehghani

List of Publications by Year in descending order

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Διι Πεήςηλη

#	Article	IF	CITATIONS
1	Chitosan biomolecules-modified graphene oxide nano-layers decorated by mesoporous ZIF-9 nanocrystals for the construction of a smart/pH-triggered anti-corrosion coating system. Journal of Industrial and Engineering Chemistry, 2023, 121, 45-62.	5.8	3
2	Investigating the effectiveness of Watermelon extract-zinc ions for steel alloy corrosion mitigation in sodium chloride solution. Journal of Molecular Liquids, 2022, 346, 117086.	4.9	10
3	Sinapis arvensis (Mustard) extract derived bio-molecules linked Zinc-II ions; Integrated electrochemical & surface investigations. Journal of Molecular Liquids, 2022, 346, 117085.	4.9	8
4	Molecular-dynamic/DFT-electronic theoretical studies coupled with electrochemical investigations of the carrot pomace extract molecules inhibiting potency toward mild steel corrosion in 1AM HCl solution. Journal of Molecular Liquids, 2022, 346, 118344.	4.9	27
5	Electronic DFT-D modeling of L-citrulline molecules interactions with Beta-CD aligned rGO-APTES multi-functional nano-capsule for anti-corrosion application. Journal of Molecular Liquids, 2022, 354, 118814.	4.9	9
6	Metal-doped 2D rGO nano-sheets fabrication utilizing plant source bio-molecules and application in the epoxy anti-corrosive coating: Combined experimental and DFT-D modeling investigations. Progress in Organic Coatings, 2022, 170, 106938.	3.9	5
7	Introduction to graphene-based materials and their composites. , 2022, , 1-47.		0
8	Graphene-based polymer composites in corrosion protection applications. , 2022, , 559-581.		0
9	Rising of MXenes: Novel 2D-functionalized nanomaterials as a new milestone in corrosion science - a critical review. Advances in Colloid and Interface Science, 2022, 307, 102730.	14.7	29
10	Construction of a high-potency anti-corrosive metal-organic film based on europium (III)-benzimidazole: Theoretical and electrochemical investigations. Construction and Building Materials, 2021, 269, 121271.	7.2	20
11	A comprehensive electronic-scale DFT modeling, atomic-level MC/MD simulation, and electrochemical/surface exploration of active nature-inspired phytochemicals based on Heracleum persicum seeds phytoextract for effective retardation of the acidic-induced corrosion of mild steel. Journal of Molecular Liquids, 2021, 331, 115764	4.9	34
12	Improvement of the anti-corrosion ability of a silane film with β-cyclodextrin-based nanocontainer loaded with L-histidine: Coupled experimental and simulations studies. Progress in Organic Coatings, 2021, 157, 106288.	3.9	10
13	Cyclodextrin-based nano-carrier for intelligent delivery of dopamine in a self-healable anti-corrosion coating. Journal of Environmental Chemical Engineering, 2021, 9, 105457.	6.7	16
14	Benzimidazole loaded β-cyclodextrin as a novel anti-corrosion system; coupled experimental/computational assessments. Journal of Colloid and Interface Science, 2021, 603, 716-727.	9.4	32
15	Steel-alloy surface protection against saline attacks via the development of Zn(II)-metal-organic networks using Lemon verbena leaves extract (LVLE); Integrated surface/electrochemical explorations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 630, 127561.	4.7	6
16	Application of L-citrulline loaded beta-cyclodextrin nano-carrier for fabrication of a corrosion protective silane film on mild-steel. Progress in Organic Coatings, 2021, 161, 106484.	3.9	5
17	2D reduced-graphene oxide (rGO) nanosheets decorated with l-histidine loaded-β-cyclodextrin for efficient epoxy nano-composite anti-corrosion properties; DFT-D modeling/experimental assessments. FlatChem, 2021, 30, 100309.	5.6	18
18	Integrated modeling and electrochemical study of Myrobalan extract for mild steel corrosion retardation in acidizing media. Journal of Molecular Liquids, 2020, 298, 112046.	4.9	59

Ali Dehghani

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19	Fabrication of metal-organic based complex film based on three-valent samarium ions-[bis (phosphonomethyl) amino] methylphosphonic acid (ATMP) for effective corrosion inhibition of mild steel in simulated seawater. Construction and Building Materials, 2020, 239, 117812.	7.2	44
20	Experimental complemented with microscopic (electronic/atomic)-level modeling explorations of Laurus nobilis extract as green inhibitor for carbon steel in acidic solution. Journal of Industrial and Engineering Chemistry, 2020, 84, 52-71.	5.8	59
21	Applying detailed molecular/atomic level simulation studies and electrochemical explorations of the green inhibiting molecules adsorption at the interface of the acid solution-steel substrate. Journal of Molecular Liquids, 2020, 299, 112220.	4.9	25
22	A detailed study on the synergistic corrosion inhibition impact of the Quercetin molecules and trivalent europium salt on mild steel; electrochemical/surface studies, DFT modeling, and MC/MD computer simulation. Journal of Molecular Liquids, 2020, 316, 113914.	4.9	62
23	Synthesis of a non-hazardous/smart anti-corrosion nano-carrier based on beta-cyclodextrin-zinc acetylacetonate inclusion complex decorated graphene oxide (β-CD-ZnA-MGO). Journal of Hazardous Materials, 2020, 398, 122962.	12.4	36
24	for the water-based siliconized film: Estimating the host-guest interactions/desorption of inclusion complexes of cerium acetylacetonate (CeA) with beta-cyclodextrin (Î ² -CD) via detailed electronic/atomic-scale computer modeling and experimental methods. Journal of Hazardous	12.4	31
25	Materials, 2020, 599, 125046. Designing a novel targeted-release nano-container based on the silanized graphene oxide decorated with cerium acetylacetonate loaded beta-cyclodextrin (Î ² -CD-CeA-MGO) for epoxy anti-corrosion coating. Chemical Engineering Journal, 2020, 400, 125860.	12.7	63
26	Construction of a highly-effective/sustainable corrosion protective composite nanofilm based on Aminotris(methylphosphonic acid) and trivalent cerium ions on mild steel against chloride solution. Construction and Building Materials, 2020, 261, 119838.	7.2	19
27	Estimating the synergistic corrosion inhibition potency of (2-(3,4-)-3,5,7-trihydroxy-4H-chromen-4-one) and trivalent-cerium ions on mild steel in NaCl solution. Construction and Building Materials, 2020, 261, 119923.	7.2	29
28	Potential role of a novel green eco-friendly inhibitor in corrosion inhibition of mild steel in HCl solution: Detailed macro/micro-scale experimental and computational explorations. Construction and Building Materials, 2020, 245, 118464.	7.2	121
29	Beta-cyclodextrin-zinc acetylacetonate (Ĵ²-CD@ZnA) inclusion complex formation as a sustainable/smart nanocarrier of corrosion inhibitors for a water-based siliconized composite film: Integrated experimental analysis and fundamental computational electronic/atomic-scale simulation. Composites Part B: Engineering, 2020, 197, 108152.	12.0	34
30	Construction of a zinc-centered metal–organic film with high anti-corrosion potency through covalent-bonding between the natural flavonoid-based molecules (Quercetin)/divalent-zinc: Computer modeling (integrated-DFT&MC/MD)/electrochemical-surface assessments. Journal of Industrial and Engineering Chemistry, 2020, 88, 382-395.	5.8	20
31	Highly effective mild steel corrosion inhibition in 1‬M HCl solution by novel green aqueous Mustard seed extract: Experimental, electronic-scale DFT and atomic-scale MC/MD explorations. Journal of Molecular Liquids, 2019, 293, 111559.	4.9	124
32	Green Eucalyptus leaf extract: A potent source of bio-active corrosion inhibitors for mild steel. Bioelectrochemistry, 2019, 130, 107339.	4.6	124
33	A green complex film based on the extract of Persian Echium amoenum and zinc nitrate for mild steel protection in saline solution; Electrochemical and surface explorations besides dynamic simulation. Journal of Molecular Liquids, 2019, 291, 111281.	4.9	31
34	Combined molecular simulation, DFT computation and electrochemical studies of the mild steel corrosion protection against NaCl solution using aqueous Eucalyptus leaves extract molecules linked with zinc ions. Journal of Molecular Liquids, 2019, 294, 111550.	4.9	43
35	Electronic/atomic level fundamental theoretical evaluations combined with electrochemical/surface examinations of Tamarindus indiaca aqueous extract as a new green inhibitor for mild steel in acidic solution (HCl 1ÂM). Journal of the Taiwan Institute of Chemical Engineers, 2019, 102, 349-377.	5.3	93
36	Detailed macro-/micro-scale exploration of the excellent active corrosion inhibition of a novel environmentally friendly green inhibitor for carbon steel in acidic environments. Journal of the Taiwan Institute of Chemical Engineers, 2019, 100, 239-261.	5.3	87

Ali Dehghani

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37	Novel cost-effective and high-performance green inhibitor based on aqueous Peganum harmala seed extract for mild steel corrosion in HCl solution: Detailed experimental and electronic/atomic level computational explorations. Journal of Molecular Liquids, 2019, 283, 174-195.	4.9	175
38	A detailed electrochemical/theoretical exploration of the aqueous Chinese gooseberry fruit shell extract as a green and cheap corrosion inhibitor for mild steel in acidic solution. Journal of Molecular Liquids, 2019, 282, 366-384.	4.9	176
39	A combined experimental and theoretical study of green corrosion inhibition of mild steel in HCl solution by aqueous Citrullus lanatus fruit (CLF) extract. Journal of Molecular Liquids, 2019, 279, 603-624.	4.9	145
40	Potential of Borage flower aqueous extract as an environmentally sustainable corrosion inhibitor for acid corrosion of mild steel: Electrochemical and theoretical studies. Journal of Molecular Liquids, 2019, 277, 895-911.	4.9	199
41	Plant extracts: Probable alternatives for traditional inhibitors for controlling alloys corrosion against acidic mediaâ \in "A review. Biomass Conversion and Biorefinery, 0, , .	4.6	11
42	Combined clove extract bio-molecules and zinc(II) ion synergistic effects in steel corrosion mitigation in saline solution: electronic (DFT) modeling, atomic/molecular (MC/MD) simulations, and corrosion measurement. Biomass Conversion and Biorefinery, 0, , .	4.6	5