

Mahmoud A Bedair

List of Publications by Year in descending order

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Version: 2024-02-01

27
papers

1,288
citations

304701

22
h-index

501174

28
g-index

28
all docs

28
docs citations

28
times ranked

590
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis, electrochemical and quantum chemical studies of some prepared surfactants based on azodye and Schiff base as corrosion inhibitors for steel in acid medium. <i>Corrosion Science</i> , 2017, 128, 54-72.	6.6	167
2	Experimental and quantum chemical studies of the effect of poly ethylene glycol as corrosion inhibitors of aluminum surface. <i>Journal of Industrial and Engineering Chemistry</i> , 2014, 20, 796-808.	5.8	93
3	The effect of structure parameters on the corrosion inhibition effect of some heterocyclic nitrogen organic compounds. <i>Journal of Molecular Liquids</i> , 2016, 219, 128-141.	4.9	79
4	Benzidine-based Schiff base compounds for employing as corrosion inhibitors for carbon steel in 1.0M HCl aqueous media by chemical, electrochemical and computational methods. <i>Journal of Molecular Liquids</i> , 2020, 317, 114015.	4.9	78
5	Adsorption and performance assessment of some imine derivatives as mild steel corrosion inhibitors in 1.0M HCl solution by chemical, electrochemical and computational methods. <i>Materials Chemistry and Physics</i> , 2018, 219, 444-460.	4.0	75
6	Corrosion inhibition and adsorption behavior of new Schiff base surfactant on steel in acidic environment: Experimental and theoretical studies. <i>Journal of Industrial and Engineering Chemistry</i> , 2014, 20, 4311-4320.	5.8	66
7	Synthesis and characterization of some nonionic surfactants as corrosion inhibitors for steel in 1.0 M HCl (Experimental and computational study). <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 41, 10-22.	5.8	58
8	Papaver somniferum as an efficient corrosion inhibitor for iron alloy in acidic condition: DFT, MC simulation, LCMS and electrochemical studies. <i>Journal of Molecular Structure</i> , 2021, 1242, 130822.	3.6	54
9	Empirical and theoretical investigations on the corrosion inhibition characteristics of mild steel by three new Schiff base derivatives. <i>Journal of Adhesion Science and Technology</i> , 2019, 33, 1139-1168.	2.6	48
10	Molecular structure aspects and molecular reactivity of some triazole derivatives for corrosion inhibition of aluminum in 1M HCl solution. <i>Journal of Molecular Structure</i> , 2021, 1236, 130292.	3.6	45
11	Green synthesis, electrochemical, and DFT studies on the corrosion inhibition of steel by some novel triazole Schiff base derivatives in hydrochloric acid solution. <i>Arabian Journal of Chemistry</i> , 2022, 15, 103491.	4.9	44
12	Herbal expired drug bearing glycosides and polysaccharides moieties as green and cost-effective oilfield corrosion inhibitor: Electrochemical and computational studies. <i>Journal of Molecular Liquids</i> , 2022, 352, 118689.	4.9	44
13	Molecular structure and mild steel/HCl corrosion inhibition of 4,5-Dicyanoimidazole: Vibrational, electrochemical and quantum mechanical calculations. <i>Journal of Molecular Structure</i> , 2021, 1230, 129647.	3.6	43
14	Experimental and computational studies of the influence of non-ionic surfactants with coumarin moiety as corrosion inhibitors for carbon steel in 1.0M HCl. <i>Journal of Molecular Liquids</i> , 2022, 349, 118445.	4.9	38
15	Synthesis, characterization of novel coumarin dyes as corrosion inhibitors for mild steel in acidic environment: Experimental, theoretical, and biological studies. <i>Journal of Molecular Liquids</i> , 2022, 346, 118310.	4.9	35
16	Synergistic Effect between Natural Honey and 0.1 M KI as Green Corrosion Inhibitor for Steel in Acid Medium. <i>Zeitschrift Fur Physikalische Chemie</i> , 2019, 233, 627-649.	2.8	32
17	Anticorrosion Effect of Ethoxylate Sulfanilamide Compounds on Carbon Steel in 1 M Hydrochloric Acid: Electrochemical and Theoretical Studies. <i>ACS Omega</i> , 2021, 6, 15089-15102.	3.5	32
18	Adsorption and Computational Studies for Evaluating the Behavior of Silicon Based Compounds as Novel Corrosion Inhibitors of Carbon Steel Surfaces in Acidic Media. <i>Zeitschrift Fur Physikalische Chemie</i> , 2019, 233, 225-254.	2.8	31

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19	Molecular structure, tautomer's, reactivity and inhibition studies on 6-Methyl-2-thiouracil for mild steel corrosion in aqueous HCl (1.00 M): Experimental and Theoretical Studies. <i>Journal of Molecular Structure</i> , 2021, 1244, 130927.	3.6	31
20	Performance assessment by experimental and Theoretical approaches of newly synthesized benzyl amide derivatives as corrosion inhibitors for carbon steel in 1.0M hydrochloric acid environment. <i>Inorganic Chemistry Communication</i> , 2022, 143, 109758.	3.9	29
21	Photophysical, DFT and molecular docking studies of Sm(III) and Eu(III) complexes of newly synthesized coumarin ligand. <i>Inorganic Chemistry Communication</i> , 2020, 121, 108213.	3.9	25
22	Synthesis and Assessment of Two Malonyl Dihydrazone Derivatives as Corrosion Inhibitors for Carbon Steel in Acidic Media: Experimental and Theoretical Studies. <i>Molecules</i> , 2021, 26, 3183.	3.8	23
23	A study of the inhibitive effect for corrosion of steel in 1.0 M HCl using a new nonionic surfactant based on coumarin moiety: chemical, electrochemical and quantum mechanics calculations. <i>Journal of Adhesion Science and Technology</i> , 2023, 37, 105-135.	2.6	19
24	Anticorrosion Study for Brass Alloys in Heat Exchangers during Acid Cleaning Using Novel Gemini Surfactants Based on Benzalkonium Tetrafluoroborate. <i>ACS Omega</i> , 2022, 7, 17849-17860.	3.5	19
25	Influence of pH values on the electrochemical performance of low carbon steel coated by plasma thin SiO ₂ films. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103391.	4.9	18
26	Synthesis of some triazole Schiff base derivatives and their metal complexes under Microwave irradiation and evaluation of their corrosion inhibition and biological activity. <i>Egyptian Journal of Chemistry</i> , 2019, .	0.2	14
27	One-step plasma deposited thin SiO ₂ /C _y films for corrosion resistance of low carbon steel. <i>Journal of Adhesion Science and Technology</i> , 2021, 35, 1734-1751.	2.6	11