

Lei Guo

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1365074/publications.pdf>

Version: 2024-02-01

180
papers

8,600
citations

44066

48
h-index

53222

85
g-index

183
all docs

183
docs citations

183
times ranked

2899
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental and theoretical studies of four allyl imidazolium-based ionic liquids as green inhibitors for copper corrosion in sulfuric acid. <i>Corrosion Science</i> , 2017, 119, 68-78.	6.6	466
2	Theoretical insight into an empirical rule about organic corrosion inhibitors containing nitrogen, oxygen, and sulfur atoms. <i>Applied Surface Science</i> , 2017, 406, 301-306.	6.1	323
3	Fabrication of environmentally friendly Losartan potassium film for corrosion inhibition of mild steel in HCl medium. <i>Chemical Engineering Journal</i> , 2021, 406, 126863.	12.7	294
4	Toward understanding the anticorrosive mechanism of some thiourea derivatives for carbon steel corrosion: A combined DFT and molecular dynamics investigation. <i>Journal of Colloid and Interface Science</i> , 2017, 506, 478-485.	9.4	268
5	Theoretical studies of three triazole derivatives as corrosion inhibitors for mild steel in acidic medium. <i>Corrosion Science</i> , 2014, 87, 366-375.	6.6	235
6	A computational study on corrosion inhibition performances of novel quinoline derivatives against the corrosion of iron. <i>Journal of Molecular Structure</i> , 2017, 1134, 751-761.	3.6	222
7	Corrosion inhibition of X65 steel in sulfuric acid by two food flavorants 2-isobutylthiazole and 1-(1,3-Thiazol-2-yl) ethanone as the green environmental corrosion inhibitors: Combination of experimental and theoretical researches. <i>Journal of Colloid and Interface Science</i> , 2019, 538, 519-529.	9.4	215
8	A combined experimental and theoretical study of the inhibition effect of three disulfide-based flavouring agents for copper corrosion in 0.5 M sulfuric acid. <i>Journal of Colloid and Interface Science</i> , 2018, 526, 268-280.	9.4	198
9	Multidimensional insights into the corrosion inhibition of 3,3-dithiodipropionic acid on Q235 steel in H ₂ SO ₄ medium: A combined experimental and in silico investigation. <i>Journal of Colloid and Interface Science</i> , 2020, 570, 116-124.	9.4	193
10	Quantum chemical and molecular dynamic simulation studies for the prediction of inhibition efficiencies of some piperidine derivatives on the corrosion of iron. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016, 65, 522-529.	5.3	173
11	Experimental and theoretical studies on the inhibition properties of three diphenyl disulfide derivatives on copper corrosion in acid medium. <i>Journal of Molecular Liquids</i> , 2020, 298, 111975.	4.9	172
12	Toward understanding the adsorption mechanism of large size organic corrosion inhibitors on an Fe(110) surface using the DFTB method. <i>RSC Advances</i> , 2017, 7, 29042-29050.	3.6	170
13	Anticorrosive Effects of Some Thiophene Derivatives Against the Corrosion of Iron: A Computational Study. <i>Frontiers in Chemistry</i> , 2018, 6, 155.	3.6	144
14	Synergistic effect of tartaric acid with 2,6-diaminopyridine on the corrosion inhibition of mild steel in 0.5 M HCl. <i>Scientific Reports</i> , 2016, 6, 33305.	3.3	138
15	Insights into the inhibition mechanism of three 5-phenyltetrazole derivatives for copper corrosion in sulfuric acid medium via experimental and DFT methods. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 102, 424-437.	5.3	125
16	Theoretical and surface/electrochemical investigations of walnut fruit green husk extract as effective inhibitor for mild-steel corrosion in 1M HCl electrolyte. <i>Journal of Molecular Liquids</i> , 2021, 338, 116550.	4.9	117
17	Experimental and theoretical investigations of some pyrazolo-pyrimidine derivatives as corrosion inhibitors on copper in sulfuric acid solution. <i>Applied Surface Science</i> , 2018, 459, 612-620.	6.1	115
18	Anti-corrosion performance of 8-hydroxyquinoline derivatives for mild steel in acidic medium: Gravimetric, electrochemical, DFT and molecular dynamics simulation investigations. <i>Journal of Molecular Liquids</i> , 2020, 308, 113042.	4.9	113

#	ARTICLE	IF	CITATIONS
19	Quantum chemical and molecular dynamics simulation studies on inhibition performances of some thiazole and thiadiazole derivatives against corrosion of iron. <i>Journal of Molecular Liquids</i> , 2016, 219, 497-504.	4.9	111
20	Locust Bean Gum as a green and novel corrosion inhibitor for Q235 steel in 0.5M H ₂ SO ₄ medium. <i>Journal of Molecular Liquids</i> , 2020, 310, 113239.	4.9	111
21	Sodium dodecyl benzene sulfonate as a sustainable inhibitor for zinc corrosion in 26% NH ₄ Cl solution. <i>Journal of Cleaner Production</i> , 2017, 152, 17-25.	9.3	107
22	Theoretical evaluation of the corrosion inhibition performance of 1,3-thiazole and its amino derivatives. <i>Arabian Journal of Chemistry</i> , 2017, 10, 121-130.	4.9	101
23	Quantum chemical calculations, molecular dynamic (MD) simulations and experimental studies of using some azo dyes as corrosion inhibitors for iron. Part 2: Bis-azo dye derivatives. <i>Journal of Molecular Structure</i> , 2018, 1163, 397-417.	3.6	101
24	Polydopamine functionalized graphene oxide nanocomposites reinforced the corrosion protection and adhesion properties of waterborne polyurethane coatings. <i>European Polymer Journal</i> , 2019, 120, 109249.	5.4	100
25	Insight into the anti-corrosion performance of two food flavors as eco-friendly and ultra-high performance inhibitors for copper in sulfuric acid medium. <i>Journal of Colloid and Interface Science</i> , 2022, 609, 838-851.	9.4	100
26	Synthesis and anticorrosive properties of epoxy polymer for CS in [1M] HCl solution: Electrochemical, AFM, DFT and MD simulations. <i>Construction and Building Materials</i> , 2021, 270, 121454.	7.2	92
27	Theoretical challenges in understanding the inhibition mechanism of copper corrosion in acid media in the presence of three triazole derivatives. <i>RSC Advances</i> , 2014, 4, 41956-41967.	3.6	91
28	Epoxy pre-polymers as new and effective materials for corrosion inhibition of carbon steel in acidic medium: Computational and experimental studies. <i>Scientific Reports</i> , 2019, 9, 11715.	3.3	90
29	Experimental and theoretical studies of benzalkonium chloride as an inhibitor for carbon steel corrosion in sulfuric acid. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 24, 174-180.	5.8	86
30	Synergistic effect of potassium iodide and sodium dodecyl sulfonate on the corrosion inhibition of carbon steel in HCl medium: a combined experimental and theoretical investigation. <i>RSC Advances</i> , 2020, 10, 15163-15170.	3.6	85
31	Solvothermal synthesis of functionalized carbon dots from amino acid as an eco-friendly corrosion inhibitor for copper in sulfuric acid solution. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 1-14.	9.4	81
32	Molecular modelling of compounds used for corrosion inhibition studies: a review. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 19987-20027.	2.8	78
33	Synergistic corrosion inhibition effect of thiazolyl-based ionic liquids between anions and cations for copper in HCl solution. <i>Applied Surface Science</i> , 2019, 483, 901-911.	6.1	77
34	Quantum chemical calculations, molecular dynamics simulation and experimental studies of using some azo dyes as corrosion inhibitors for iron. Part 1: Mono-azo dye derivatives. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016, 68, 461-480.	5.3	74
35	Insights into the newly synthesized N-doped carbon dots for Q235 steel corrosion retardation in acidizing media: A detailed multidimensional study. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2039-2049.	9.4	74
36	Akebia trifoliata koiaz peels extract as environmentally benign corrosion inhibitor for mild steel in HCl solutions: Integrated experimental and theoretical investigations. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 101, 227-236.	5.8	73

#	ARTICLE	IF	CITATIONS
37	Experimental and molecular modeling studies of multi-active tetrazole derivative bearing sulfur linker for protecting steel from corrosion. <i>Journal of Molecular Liquids</i> , 2022, 351, 118638.	4.9	71
38	Novel gossypol- <i>l</i> -tryptophan modification as a green corrosion inhibitor for low-carbon steel in aggressive alkaline-saline solution. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 637, 128207.	4.7	70
39	Highly functionalized epoxy macromolecule as an anti-corrosive material for carbon steel: Computational (DFT, MDS), surface (SEM-EDS) and electrochemical (OCP, PDP, EIS) studies. <i>Journal of Molecular Liquids</i> , 2020, 302, 112535.	4.9	69
40	A gossypol derivative as an efficient corrosion inhibitor for St2 steel in 1M HCl+1M KCl: An experimental and theoretical investigation. <i>Journal of Molecular Liquids</i> , 2021, 328, 115475.	4.9	69
41	Corrosion inhibition of mild steel in sulfuric acid solution by loquat (<i>Eriobotrya japonica</i> Lindl.) leaves extract. <i>Scientific Reports</i> , 2018, 8, 9140.	3.3	65
42	Evaluating two new Schiff bases synthesized on the inhibition of corrosion of copper in NaCl solutions. <i>RSC Advances</i> , 2015, 5, 14804-14813.	3.6	62
43	Rheological, electrochemical, surface, DFT and molecular dynamics simulation studies on the anticorrosive properties of new epoxy monomer compound for steel in 1M HCl solution. <i>RSC Advances</i> , 2019, 9, 4454-4462.	3.6	62
44	Synthesized carbon dots with high N and S content as excellent corrosion inhibitors for copper in sulfuric acid solution. <i>Journal of Molecular Liquids</i> , 2021, 338, 116702.	4.9	62
45	Applications of graphene-based composite hydrogels: a review. <i>RSC Advances</i> , 2017, 7, 51008-51020.	3.6	61
46	Experimental and computational studies of two antibacterial drugs as corrosion inhibitors for mild steel in acid media. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2014, 65, 935-942.	1.5	57
47	Thioglycoluril derivative as a new and effective corrosion inhibitor for low carbon steel in a 1M HCl medium: Experimental and theoretical investigation. <i>Journal of Molecular Structure</i> , 2021, 1234, 130165.	3.6	55
48	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
49	Banana leaves water extracts as inhibitor for X70 steel corrosion in HCl medium. <i>Journal of Molecular Liquids</i> , 2021, 327, 114828.	4.9	52
50	Investigation of Losartan Potassium as an eco-friendly corrosion inhibitor for copper in 0.5M H ₂ SO ₄ . <i>Journal of Molecular Liquids</i> , 2020, 305, 112789.	4.9	51
51	Experimental and theoretical assessment of new and eco-friendly thioglycoluril derivative as an effective corrosion inhibitor of St2 steel in the aggressive hydrochloric acid with sulfate ions. <i>Journal of Molecular Liquids</i> , 2021, 335, 116168.	4.9	51
52	Novel bromide-cucurbit[7]uril supramolecular ionic liquid as a green corrosion inhibitor for the oil and gas industry. <i>Journal of Electroanalytical Chemistry</i> , 2021, 901, 115794.	3.8	51
53	A detailed investigation on the corrosion inhibition effect of by newly synthesized pyran derivative on mild steel in 1.0M HCl: Experimental, surface morphological (SEM-EDS, DRX& AFM) and computational analysis (DFT & MD simulation). <i>Journal of Molecular Liquids</i> , 2021, 344, 117777.	4.9	50
54	Electrochemical, DFT and MD simulation of newly synthesized triazolotriazepine derivatives as corrosion inhibitors for carbon steel in 1M HCl. <i>Journal of Molecular Liquids</i> , 2019, 274, 759-769.	4.9	49

#	ARTICLE	IF	CITATIONS
55	Three imidazole ionic liquids as green and eco-friendly corrosion inhibitors for mild steel in sulfuric acid medium. <i>Journal of Molecular Liquids</i> , 2021, 324, 115063.	4.9	47
56	Molecular dynamic simulation and Quantum chemical calculation of phytochemicals present in <i>Beta vulgaris</i> and electrochemical behaviour of <i>Beta vulgaris</i> peel extract as green corrosion inhibitor for stainless steel (SS-410) in acidic medium. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 632, 127707.	4.7	47
57	A first-principles study on the structural, elastic, electronic, optical, lattice dynamical, and thermodynamic properties of zinc-blende CdX (X= S, Se, and Te). <i>Journal of Alloys and Compounds</i> , 2013, 579, 583-593.	5.5	46
58	Adsorption and anticorrosive behavior of aromatic epoxy monomers on carbon steel corrosion in acidic solution: computational studies and sustained experimental studies. <i>RSC Advances</i> , 2019, 9, 14782-14796.	3.6	46
59	Synergistic Effect of Potassium Iodide with L-Tryptophane on the Corrosion Inhibition of Mild Steel: A Combined Electrochemical and Theoretical Study. <i>International Journal of Electrochemical Science</i> , 2017, 12, 166-177.	1.3	45
60	Phenolic fraction of <i>Ammi visnaga</i> extract as environmentally friendly antioxidant and corrosion inhibitor for mild steel in acidic medium. <i>Journal of Molecular Liquids</i> , 2021, 323, 114950.	4.9	45
61	Performance of two new epoxy resins as potential corrosion inhibitors for carbon steel in 1M HCl medium: Combining experimental and computational approaches. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 626, 127066.	4.7	44
62	Rapid Production of Mn ₃ O ₄ /rGO as an Efficient Electrode Material for Supercapacitor by Flame Plasma. <i>Materials</i> , 2018, 11, 881.	2.9	43
63	Experimental and Theoretical Investigation of Thiazolyl Blue as a Corrosion Inhibitor for Copper in Neutral Sodium Chloride Solution. <i>Materials</i> , 2018, 11, 1042.	2.9	43
64	Aminoantipyrine derivatives as a novel eco-friendly corrosion inhibitors for P110 steel in simulating acidizing environment: Experimental and computational studies. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 83, 103547.	4.4	43
65	Newly synthesized triazolopyrimidine derivative as an inhibitor for mild steel corrosion in HCl medium: an experimental and in silico study. <i>Journal of Materials Research and Technology</i> , 2020, 9, 6568-6578.	5.8	43
66	Novel glycoluril pharmaceutically active compound as a green corrosion inhibitor for the oil and gas industry. <i>Journal of Electroanalytical Chemistry</i> , 2022, 907, 116055.	3.8	43
67	Corrosion inhibition of eco-friendly nitrogen-doped carbon dots for carbon steel in acidic media: Performance and mechanism investigation. <i>Journal of Molecular Liquids</i> , 2021, 342, 117583.	4.9	42
68	Eco-friendly food spice 2-Furfurylthio-3-methylpyrazine as an excellent inhibitor for copper corrosion in sulfuric acid medium. <i>Journal of Molecular Liquids</i> , 2020, 317, 113915.	4.9	40
69	Comparative theoretical study on the corrosion inhibition properties of benzoxazole and benzothiazole. <i>Research on Chemical Intermediates</i> , 2015, 41, 3729-3742.	2.7	39
70	Inhibition properties of 4,5-dihydroxy-4,5-di-p-tolylimidazolidine-2-thione for use on carbon steel in an aggressive alkaline medium with chloride ions: Thermodynamic, electrochemical, surface and theoretical analyses. <i>Journal of Molecular Liquids</i> , 2021, 327, 114813.	4.9	39
71	The recent development of carbon dots as powerful green corrosion inhibitors: A prospective review. <i>Journal of Molecular Liquids</i> , 2022, 349, 118124.	4.9	39
72	Designing of phosphorous based highly functional dendrimeric macromolecular resin as an effective coating material for carbon steel in <sc>NaCl</sc>: Computational and experimental studies. <i>Journal of Applied Polymer Science</i> , 2021, 138, 49673.	2.6	38

#	ARTICLE	IF	CITATIONS
73	Cinnamomum tamala leaves extract highly efficient corrosion bio-inhibitor for low carbon steel: Applying computational and experimental studies. Journal of Molecular Liquids, 2022, 347, 118218.	4.9	37
74	Novel cucurbit[6]uril-based [3]rotaxane supramolecular ionic liquid as a green and excellent corrosion inhibitor for the chemical industry. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 633, 127837.	4.7	36
75	Structural, elastic, electronic and optical properties of beryllium chalcogenides BeX (X=S, Se, Te) with zinc-blende structure. Journal of Alloys and Compounds, 2013, 561, 16-22.	5.5	35
76	Development of a Novel Thermally Stable Inhibitor Based on Furfuryl Alcohol for Mild Steel Corrosion in a 15% HCl Medium for Acidizing Application. Industrial & Engineering Chemistry Research, 2021, 60, 11030-11044.	3.7	35
77	Corrosion inhibition, surface adsorption and computational studies of Momordica charantia extract: a sustainable and green approach. SN Applied Sciences, 2021, 3, 1.	2.9	34
78	Corrosion inhibition of steel using different families of organic compounds: Past and present progress. Journal of Molecular Liquids, 2022, 348, 118373.	4.9	33
79	5-Mercapto-1-phenyltetrazole as a high-efficiency corrosion inhibitor for Q235 steel in acidic environment. Journal of Molecular Liquids, 2021, 325, 115132.	4.9	32
80	Synthesis, structural analysis and corrosion inhibition application of a new indazole derivative on mild steel surface in acidic media complemented with DFT and MD studies. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 617, 126373.	4.7	32
81	Multidimensional insight into the corrosion inhibition of salbutamol drug molecule on mild steel in oilfield acidizing fluid: Experimental and computer aided modeling approach. Journal of Molecular Liquids, 2022, 349, 118482.	4.9	32
82	Cyclotriphosphazene based dendrimeric epoxy resin as an anti-corrosive material for copper in 3% NaCl: Experimental and computational demonstrations. Journal of Molecular Liquids, 2020, 308, 113020.	4.9	31
83	Effect of alkyl group position on adsorption behavior and corrosion inhibition of new naphthol based on 8-hydroxyquinoline: Electrochemical, surface, quantum calculations and dynamic simulations. Journal of Molecular Liquids, 2021, 335, 116552.	4.9	31
84	Mn ₃ O ₄ with different morphologies tuned through one-step electrochemical method for high-performance lithium-ion batteries anode. Journal of Alloys and Compounds, 2019, 771, 335-342.	5.5	30
85	Electrochemical and Computational Studies on the Corrosion Inhibition of Mild Steel by 1-Hexadecyl-3-methylimidazolium Bromide in HCl Medium. International Journal of Electrochemical Science, 2020, 15, 1893-1903.	1.3	29
86	Corrosion control of mild steel in 0.1 M H ₂ SO ₄ solution by benzimidazole and its derivatives: an experimental and theoretical study. RSC Advances, 2017, 7, 23961-23969.	3.6	28
87	Epoxy prepolymer as a novel anti-corrosive material for carbon steel in acidic solution: Electrochemical, surface and computational studies. Materials Today Communications, 2020, 22, 100800.	1.9	28
88	Synthesis, crystal structure, DFT, molecular dynamics simulation and evaluation of the anticorrosion performance of a new pyrazolotriazole derivative. Journal of Molecular Structure, 2019, 1176, 290-297.	3.6	27
89	Effective Protection for Copper Corrosion by Two Thiazole Derivatives in Neutral Chloride Media: Experimental and Computational Study. International Journal of Electrochemical Science, 0, , 3147-3163.	1.3	26
90	Experimental and computational investigations of 2-amino-6-bromobenzothiazole as a corrosion inhibitor for copper in sulfuric acid. Journal of Adhesion Science and Technology, 2018, 32, 2083-2098.	2.6	25

#	ARTICLE	IF	CITATIONS
91	One-Pot Hydrothermal Synthesized Nitrogen and Sulfur Codoped Carbon Dots for Acid Corrosion Inhibition of Q235 Steel. <i>Langmuir</i> , 2022, 38, 3984-3992.	3.5	25
92	Quantum chemical and molecular dynamics simulation approach to investigate adsorption behaviour of organic azo dyes on TiO ₂ and ZnO surfaces. <i>Journal of Adhesion Science and Technology</i> , 2023, 37, 1649-1665.	2.6	25
93	Experimental and Theoretical Studies on the Corrosion Inhibition of Carbon Steel by Two Indazole Derivatives in HCl Medium. <i>Materials</i> , 2019, 12, 1339.	2.9	24
94	Development and Anti-corrosion Performance of Polymeric Epoxy Resin and their Zinc Phosphate Composite on 15CDV6 Steel in 3wt% NaCl: Experimental and Computational Studies. <i>Journal of Bio- and Tribo-Corrosion</i> , 2020, 6, 1.	2.6	24
95	Hydroxy phenyl hydrazides and their role as corrosion impeding agent: A detail experimental and theoretical study. <i>Journal of Molecular Liquids</i> , 2021, 330, 115605.	4.9	24
96	Synthesis of Macromolecular Aromatic Epoxy Resins as Anticorrosive Materials: Computational Modeling Reinforced Experimental Studies. <i>ACS Omega</i> , 2020, 5, 3151-3164.	3.5	23
97	Epoxy resin and TiO ₂ composite as anticorrosive material for carbon steel in 3% NaCl medium: Experimental and computational studies. <i>Journal of Molecular Liquids</i> , 2020, 317, 114249.	4.9	22
98	A new series of synthesized compounds as corrosion mitigator for storage tanks: Detailed electrochemical and theoretical investigations. <i>Construction and Building Materials</i> , 2020, 259, 120421.	7.2	22
99	New and Green Corrosion Inhibitor Based on New Imidazole Derivate for Carbon Steel in 1 M Hcl Medium: Experimental and Theoretical Analyses. <i>International Journal of Engineering Research in Africa</i> , 0, 58, 11-44.	0.7	22
100	Decyltriphenylphosphonium bromide containing hydrophobic alkyl-chain as a potential corrosion inhibitor for mild steel in sulfuric acid: Theoretical and experimental studies. <i>Journal of Molecular Liquids</i> , 2021, 336, 116166.	4.9	21
101	A first-principles study on the structural, elastic, electronic, and optical properties of CdRh ₂ O ₄ . <i>Journal of Materials Science</i> , 2014, 49, 1205-1214.	3.7	20
102	Synthesis and Structure of Water-Soluble Sb Quantum Dots and Enhanced Corrosion Inhibition Performance and Mechanisms. <i>Inorganic Chemistry</i> , 2021, 60, 16346-16356.	4.0	19
103	De-scaling, experimental, DFT, and MD-simulation studies of unwanted growing plant as natural corrosion inhibitor for SS-410 in acid medium. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 649, 129333.	4.7	19
104	Anticorrosion properties of 5,5-dithiobis-(2-nitrobenzoic acid) and sodium sulfite compounds for aluminum alloy 2024-T3 in saline solution: Electrochemical, characterization and theoretical investigations. <i>Journal of Molecular Liquids</i> , 2021, 331, 115661.	4.9	18
105	Insight on the corrosion inhibition performance of psidium guajava linn leaves extract. <i>Journal of Molecular Liquids</i> , 2022, 346, 117858.	4.9	18
106	Development of QSAR-based (MLR/ANN) predictive models for effective design of pyridazine corrosion inhibitors. <i>Materials Today Communications</i> , 2022, 30, 103163.	1.9	18
107	Inhibitive effect of different solvent fractions of bamboo shoots extract on the corrosion of mild steel in 0.5 mol/L H ₂ SO ₄ solution. <i>Journal of Molecular Structure</i> , 2021, 1243, 130852.	3.6	17
108	Experimental and theoretical investigation on the inhibition performance of disulfide derivatives on cobalt corrosion in alkaline medium. <i>Journal of Molecular Liquids</i> , 2021, 341, 116907.	4.9	17

#	ARTICLE	IF	CITATIONS
109	Green and high-efficiency corrosion inhibitors for metals: a review. <i>Journal of Adhesion Science and Technology</i> , 2023, 37, 1501-1524.	2.6	17
110	Investigation of indole-3-carboxylic acid as steel inhibitor in 0.1M H ₂ SO ₄ solution. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 25, 295-303.	5.8	16
111	Theoretical and electrochemical analysis on inhibition effects of benzotriazole derivatives (un- and Tj ETQq1 1 0.784314 rgBT /Overlo	3.6	16
112	Specific Adsorption of Halide Ions on Iron Surface: A Combined Electrochemical and Monte Carlo Simulation Investigation. <i>International Journal of Electrochemical Science</i> , 2017, , 7064-7074.	1.3	15
113	Magnetic core-shell-structured Fe ₃ O ₄ @CeO ₂ as an efficient catalyst for catalytic wet peroxide oxidation of benzoic acid. <i>RSC Advances</i> , 2018, 8, 33972-33979.	3.6	15
114	Multidimensional insights into the corrosion inhibition of potassium oleate on Cu in alkaline medium: A combined Experimental and theoretical investigation. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 272, 115330.	3.5	15
115	DFT calculations, molecular simulations, and electrochemical investigations of Nature-inspired phytochemical attributes of <i>Achillea Millefolium</i> plants for the construction of effective zinc-based organic anti-corrosion layer on carbon steel. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 129, 273-288.	5.3	15
116	Influence of the alkyl chain length of alkyltriazoles on the corrosion inhibition of iron: A DFTB study. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	13
117	Probing the frictional properties of sulfur-doped diamond-like carbon films under high vacuum by first-principles calculations. <i>Applied Surface Science</i> , 2019, 481, 1483-1489.	6.1	13
118	Trifunctional epoxy resin as anticorrosive material for carbon steel in 1 M HCl: Experimental and computational studies. <i>Surfaces and Interfaces</i> , 2020, 21, 100707.	3.0	13
119	Improving environmental adaptability and long-term corrosion resistance of Mg alloys by pyrazole ionic liquids: Experimental and theoretical studies. <i>Journal of Molecular Liquids</i> , 2021, 333, 115964.	4.9	13
120	Elastic, electronic, optical, and spectroscopic properties of $\hat{1}^2$ -AgMO ₂ (M = Al and Ga): First-principles calculations. <i>Computational Materials Science</i> , 2014, 92, 92-101.	3.0	12
121	Preparation of (Gd _{0.9} Sc _{0.1}) ₂ Zr ₂ O ₇ /YSZ thermal barrier coatings and their corrosion resistance to V ₂ O ₅ molten salt. <i>Surface and Coatings Technology</i> , 2020, 389, 125677.	4.8	12
122	Effect of pigeon pea seed (isoflavone) molecules on corrosion inhibition of mild steel in oilfield descaling solution: electro-kinetic, DFT modeling and optimization studies. <i>Journal of the Iranian Chemical Society</i> , 2021, 18, 2983-3005.	2.2	12
123	Anticorrosion activity of two new pyridine derivatives in protecting X70 pipeline steel in oil well acidizing fluid: experimental and quantum chemical studies. <i>Journal of the Iranian Chemical Society</i> , 2022, 19, 2331-2346.	2.2	12
124	Synthesis and anticorrosive activity of two new imidazo[1, 2-a]pyridine Schiff bases. <i>Journal of Molecular Liquids</i> , 2022, 350, 118458.	4.9	12
125	Pyrazole ionic liquid corrosion inhibitor for magnesium alloy: Synthesis, performances and theoretical explore. <i>Journal of Molecular Liquids</i> , 2022, 353, 118769.	4.9	12
126	MD simulation/Quantum chemical calculations and experimental studies of <i>Ranunculus bulbosus</i> biomolecules impact on the mild steel dissolution reduction in a destructive acidic liquid. <i>Journal of Molecular Liquids</i> , 2022, 355, 118950.	4.9	12

#	ARTICLE	IF	CITATIONS
127	Aesculus hippocastanum seeds extract as eco-friendly corrosion inhibitor for desalination plants: Experimental and theoretical studies. <i>Journal of Molecular Liquids</i> , 2022, 361, 119594.	4.9	12
128	First-principles investigation of a $\hat{1}^2$ -MnO ₂ and graphene composite as a promising cathode material for rechargeable Li-ion batteries. <i>RSC Advances</i> , 2017, 7, 29821-29826.	3.6	11
129	Mercury (II) adsorption from aqueous solution using nitrogen and sulfur co-doped activated carbon. <i>Water Science and Technology</i> , 2018, 2017, 310-318.	2.5	11
130	Halogeno-substituted indazoles against copper corrosion in industrial pickling process: a combined electrochemical, morphological and theoretical approach. <i>RSC Advances</i> , 2018, 8, 38860-38871.	3.6	11
131	Fabrication on designing of a macromolecular epoxy resin as anti-corrosive coating material for electrocatalytically deposited cadmium on 15CDV6 steel in 3% NaCl solution. <i>Journal of Materials Research and Technology</i> , 2020, 9, 5549-5563.	5.8	11
132	Fe-mediated synthesis of <i>N</i> -aryl amides from nitroarenes and acyl chlorides. <i>RSC Advances</i> , 2021, 11, 15290-15295.	3.6	10
133	Synthesis, Crystal structure, Hirshfeld surface Analysis and computational approach of new 2-methylbenzimidazo[1,2- <i>a</i>]pyrimidin-4(1H)-one. <i>Journal of Molecular Structure</i> , 2021, 1239, 130497.	3.6	10
134	Molecular dynamic (MD) simulation and electrochemical assessments of the Satureja Hortensis extract for the construction of effective zinc-based protective film on carbon steel. <i>Journal of Molecular Liquids</i> , 2021, 338, 116606.	4.9	10
135	Unraveling the surface behavior of amino acids on Cu wiring in chemical mechanical polishing of barrier layers: A combination of experiments and ReaxFF MD. <i>Journal of Molecular Liquids</i> , 2021, 341, 117307.	4.9	10
136	Recent progress in epoxy resins as corrosion inhibitors: design and performance. <i>Journal of Adhesion Science and Technology</i> , 2023, 37, 923-944.	2.6	10
137	Corrosion inhibition abilities of phytochemicals: a combined computational studies. <i>Journal of Adhesion Science and Technology</i> , 2023, 37, 842-857.	2.6	9
138	Anticorrosive potential of essential oil extracted from the leaves of <i>Calamintha plant</i> for mild steel in 1 M HCl medium. <i>Journal of Adhesion Science and Technology</i> , 2023, 37, 1191-1214.	2.6	9
139	Intrinsic electronic property and adsorption of organic molecules on specific iron surface: an <i>ab initio</i> DFT and DFTB study. <i>Journal of Adhesion Science and Technology</i> , 2023, 37, 1837-1855.	2.6	9
140	Experimental and Theoretical Investigation of Corrosion Inhibition Effect of Multi-Active Compounds on Mild Steel in 1 M HCl. <i>International Journal of Electrochemical Science</i> , 2019, 14, 6855-6873.	1.3	8
141	Multidimensional insights involving electrochemical and in silico investigation into the corrosion inhibition of newly synthesized pyrazolotriazole derivatives on carbon steel in a HCl solution. <i>RSC Advances</i> , 2019, 9, 34761-34771.	3.6	8
142	Influence of ring size on corrosion inhibition potential of environmental sustainable cycloalkyltriphenylphosphonium based ionic liquids: Computational and experimental demonstrations. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 123, 21-33.	5.3	8
143	Electrochemical and Quantum Chemical Assessment of 2-Aminothiazole as Inhibitor for Carbon Steel in Sulfuric Acid Solution. <i>Asian Journal of Chemistry</i> , 2015, 27, 2917-2923.	0.3	8
144	Theoretical, chemical, and electrochemical studies of Equisetum arvense extract as an impactful inhibitor of steel corrosion in 2M HCl electrolyte. <i>Scientific Reports</i> , 2022, 12, 2255.	3.3	8

#	ARTICLE	IF	CITATIONS
145	Structural, Elastic, Electronic and Optical Properties of Zinc-Blende MTe (M=Zn/Mg). Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2013, 29, 929-936.	4.9	7
146	Synergistic Effect of Purpald with Tartaric Acid on the Corrosion Inhibition of Mild Steel: from Electrochemical to Theoretical Insights. Protection of Metals and Physical Chemistry of Surfaces, 2018, 54, 917-925.	1.1	7
147	A fast and high-efficiency electrochemical exfoliation strategy towards antimonene/carbon composites for selective lubrication and sodium-ion storage applications. Physical Chemistry Chemical Physics, 2022, 24, 4957-4965.	2.8	7
148	Thermodynamics, core-level spectroscopy, morphology, and work function study of different TiCl ₃ crystalline phases: A theoretical approach. Journal of Alloys and Compounds, 2014, 602, 66-71.	5.5	6
149	Anticorrosion potential of domperidone on copper in different concentration of hydrochloric acid solution. Journal of Adhesion Science and Technology, 2018, 32, 1485-1502.	2.6	6
150	Azole-Based Compounds as Corrosion Inhibitors for Metallic Materials. , 0, , .		6
151	Synergistic effect of 4-dimethylaminopyridine with sodium dodecyl sulfonate and potassium bromide on the corrosion inhibition of mild steel in HCl medium: a collective experimental and computational investigation. Journal of Adhesion Science and Technology, 0, , 1-16.	2.6	6
152	An oxadiazole-functionalized ligand and its yellow-emitting Re(I) complex for organoelectronic application. Optical Materials, 2012, 34, 1303-1309.	3.6	5
153	Triblock Copolymer Pluronic F68 as a Corrosion Inhibitor for Aluminum-air Battery: An Electrochemical and in Silico Study. International Journal of Electrochemical Science, 2019, , 11480-11490.	1.3	5
154	Experimental and theoretical investigation on the effect of N-substituent position on the inhibition performance of L-lysine derivatives for carbon steel in H ₂ SO ₄ solution. Research on Chemical Intermediates, 2021, 47, 663-682.	2.7	5
155	Synergistic Effect of Imidazoline Derivative and Benzimidazole as Corrosion Inhibitors for Q235 Steel: An Electrochemical, XPS, FT-IR and MD Study. Arabian Journal for Science and Engineering, 2022, 47, 7123-7134.	3.0	5
156	pH Influence on Performance of Phytic Acid Conversion Coatings on AZ31 Magnesium Alloy in Simulated Body Fluid. Chinese Journal of Chemical Physics, 2014, 27, 535-540.	1.3	4
157	Electrochemical and Computational Investigations on the Corrosion Inhibition of X65 Steel by 2-Phenylbenzimidazole in H ₂ SO ₄ Solution. International Journal of Electrochemical Science, 2020, , 8837-8848.	1.3	3
158	Single-layer graphene oxide as corrosion inhibition protection for Cu under 0.5 M H ₂ SO ₄ solution. Surface Topography: Metrology and Properties, 2021, 9, 045016.	1.6	3
159	An Overview of Corrosion. ACS Symposium Series, 0, , 1-19.	0.5	3
160	Ionic liquids as green and sustainable corrosion inhibitors I. , 2022, , 331-390.		3
161	Dopamine-functionalized poloxamers for antibacterial coating. Materials Letters, 2021, 291, 129591.	2.6	2
162	Monte Carlo simulations of corrosion inhibition of copper by two Schiff bases. , 0, , .		2

#	ARTICLE	IF	CITATIONS
163	Experimental and Theoretical Studies on the Inhibition Properties of an Imidazoline Derivative on Q235 Corrosion in a Simulated Concrete Pore Solution. <i>ChemistrySelect</i> , 2022, 7, .	1.5	2
164	Effect of imidazoline derivatives on the corrosion inhibition of Q235 steel in HCl medium: experimental and theoretical investigation. <i>Corrosion Reviews</i> , 2022, 40, 275-288.	2.0	2
165	Understanding the corrosion behavior of amorphous multiple-layer carbon coating. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	1
166	A triazolopyrimidine derivative as corrosion inhibitor for mild steel in HCl solution. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	1
167	The Application of Chitosan-Based Compounds against Metallic Corrosion. , 0, , .		1
168	Environmentally sustainable corrosion inhibitors used for electronics industry. , 2022, , 359-381.		1
169	Novel Glycoluril Pharmaceutically Active Compound as a Green Corrosion Inhibitor for the Oil and Gas Industry. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
170	Band-engineered Zn ₂ TiO ₄ nanowires for hydrogen generation from water using visible light: A first-principles study. <i>AIP Advances</i> , 2022, 12, 015201.	1.3	1
171	Smart corrosion inhibitor: Present status and future scenario. , 2022, , 485-504.		1
172	Synthesis and Photoluminescent Properties of a Zinc (II) Complex with Phenanthroline Derivative. <i>Advanced Materials Research</i> , 2012, 496, 38-41.	0.3	0
173	Understanding the adsorption of a benzotriazole derivative on Cu (111) surface: A DFT and MD investigation. , 2017, , .		0
174	2-Cyanopyridine as a corrosion inhibitor for mild steel: An in silico study. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
175	Novel Bromide- Cucurbit[7]Uril Supramolecular Ionic Liquid as a Green Corrosion Inhibitor for the Oil and Gas Industry. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
176	Defects Energetics, Electronic Structure and Optical Properties of Cu-Doping and Zn Vacancy Impurities in ZnSe. <i>Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica</i> , 2012, 28, 2845-2851.	4.9	0
177	Halogen-substituted pyrazolo-pyrimidine derivatives as corrosion inhibitors for copper in sulfuric acid solution. <i>International Journal of Corrosion and Scale Inhibition</i> , 2018, 7, .	0.6	0
178	Editorial: Frontiers in Chemistry-Rising Stars: Asia. <i>Frontiers in Chemistry</i> , 2021, 9, 811459.	3.6	0
179	Corrosion inhibitors for Cu chemical mechanical planarization (CMP). , 2022, , 155-170.		0
180	Computational methods used in corrosion inhibition research. , 2022, , 527-538.		0