

Chandrabhan Verma

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

2,406
citations

159525

30
h-index

214721

47
g-index

52
all docs

52
docs citations

52
times ranked

1064
citing authors

#	ARTICLE	IF	CITATIONS
1	Aqueous phase environmental friendly organic corrosion inhibitors derived from one step multicomponent reactions: A review. <i>Journal of Molecular Liquids</i> , 2019, 275, 18-40.	2.3	145
2	Recent developments in sustainable corrosion inhibitors: design, performance and industrial scale applications. <i>Materials Advances</i> , 2021, 2, 3806-3850.	2.6	129
3	Recent progresses in Schiff bases as aqueous phase corrosion inhibitors: Design and applications. <i>Coordination Chemistry Reviews</i> , 2021, 446, 214105.	9.5	117
4	Sulfur and phosphorus heteroatom-containing compounds as corrosion inhibitors: An overview. <i>Heteroatom Chemistry</i> , 2018, 29, .	0.4	116
5	Experimental, density functional theory and molecular dynamics supported adsorption behavior of environmental benign imidazolium based ionic liquids on mild steel surface in acidic medium. <i>Journal of Molecular Liquids</i> , 2019, 273, 1-15.	2.3	92
6	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.	1.6	90
7	Molecular structural aspects of organic corrosion inhibitors: Experimental and computational insights. <i>Journal of Molecular Structure</i> , 2021, 1227, 129374.	1.8	81
8	Experimental and quantum chemical studies of functionalized tetrahydropyridines as corrosion inhibitors for mild steel in 1M hydrochloric acid. <i>Results in Physics</i> , 2018, 9, 1481-1493.	2.0	78
9	Molecular modelling of compounds used for corrosion inhibition studies: a review. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 19987-20027.	1.3	78
10	Microwave and ultrasound irradiations for the synthesis of environmentally sustainable corrosion inhibitors: An overview. <i>Sustainable Chemistry and Pharmacy</i> , 2018, 10, 134-147.	1.6	69
11	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.	2.3	69
12	Imidazoles as highly effective heterocyclic corrosion inhibitors for metals and alloys in aqueous electrolytes: A review. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 114, 341-358.	2.7	68
13	Pyridine based N-heterocyclic compounds as aqueous phase corrosion inhibitors: A review. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 117, 265-277.	2.7	65
14	A Green and Sustainable Approach for Mild Steel Acidic Corrosion Inhibition Using Leaves Extract: Experimental and DFT Studies. <i>Journal of Bio- and Tribo-Corrosion</i> , 2018, 4, 1.	1.2	63
15	Quinoline and its derivatives as corrosion inhibitors: A review. <i>Surfaces and Interfaces</i> , 2020, 21, 100634.	1.5	63
16	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.	1.7	62
17	Experimental and computational investigations on the anti-corrosive and adsorption behavior of 7-N,N-dialkylaminomethyl-8-Hydroxyquinolines on C40E steel surface in acidic medium. <i>Journal of Colloid and Interface Science</i> , 2020, 576, 330-344.	5.0	57
18	Pyrazole derivatives as environmental benign acid corrosion inhibitors for mild steel: Experimental and computational studies. <i>Journal of Molecular Liquids</i> , 2020, 298, 111943.	2.3	54

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19	Computational Modeling: Theoretical Predictive Tools for Designing of Potential Organic Corrosion Inhibitors. <i>Journal of Molecular Structure</i> , 2021, 1236, 130294.	1.8	54
20	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.	1.7	46
21	Anticorrosive property of heterocyclic based epoxy resins on carbon steel corrosion in acidic medium: Electrochemical, surface morphology, DFT and Monte Carlo simulation studies. <i>Journal of Molecular Liquids</i> , 2019, 287, 110977.	2.3	44
22	Corrosion inhibition potential of chitosan based Schiff bases: Design, performance and applications. <i>International Journal of Biological Macromolecules</i> , 2021, 184, 135-143.	3.6	43
23	Impact of selected ionic liquids on corrosion protection of mild steel in acidic medium: Experimental and computational studies. <i>Journal of Molecular Liquids</i> , 2020, 314, 113609.	2.3	42
24	Experimental and computational studies on hydroxamic acids as environmental friendly chelating corrosion inhibitors for mild steel in aqueous acidic medium. <i>Journal of Molecular Liquids</i> , 2020, 314, 113651.	2.3	42
25	Melamine derivatives as effective corrosion inhibitors for mild steel in acidic solution: Chemical, electrochemical, surface and DFT studies. <i>Results in Physics</i> , 2018, 9, 100-112.	2.0	41
26	Quantitative structure activity relationship and artificial neural network as vital tools in predicting coordination capabilities of organic compounds with metal surface: A review. <i>Coordination Chemistry Reviews</i> , 2021, 446, 214101.	9.5	40
27	Adsorption characteristics of green 5-arylamino-methylene pyrimidine-2,4,6-triones on mild steel surface in acidic medium: Experimental and computational approach. <i>Results in Physics</i> , 2018, 8, 657-670.	2.0	38
28	Designing of phosphorous based highly functional dendrimeric macromolecular resin as an effective coating material for carbon steel in NaCl: Computational and experimental studies. <i>Journal of Applied Polymer Science</i> , 2021, 138, 49673.	1.3	38
29	Aqueous phase polymeric corrosion inhibitors: Recent advancements and future opportunities. <i>Journal of Molecular Liquids</i> , 2022, 348, 118387.	2.3	34
30	Phthalocyanine, naphthalocyanine and their derivatives as corrosion inhibitors: A review. <i>Journal of Molecular Liquids</i> , 2021, 334, 116441.	2.3	33
31	Corrosion inhibition of steel using different families of organic compounds: Past and present progress. <i>Journal of Molecular Liquids</i> , 2022, 348, 118373.	2.3	33
32	Corrosion inhibition of mild steel in 1M HCl using environmentally benign <i>Thevetia peruviana</i> flower extracts. <i>Sustainable Chemistry and Pharmacy</i> , 2021, 19, 100354.	1.6	30
33	Epoxy prepolymer as a novel anti-corrosive material for carbon steel in acidic solution: Electrochemical, surface and computational studies. <i>Materials Today Communications</i> , 2020, 22, 100800.	0.9	28
34	Chemical, Electrochemical and Computational Studies of Newly Synthesized Novel and Environmental Friendly Heterocyclic Compounds as Corrosion Inhibitors for Mild Steel in Acidic Medium. <i>Journal of Bio- and Tribo-Corrosion</i> , 2018, 4, 1.	1.2	26
35	Chromeno-carbonitriles as corrosion inhibitors for mild steel in acidic solution: electrochemical, surface and computational studies. <i>RSC Advances</i> , 2021, 11, 2462-2475.	1.7	26
36	N-heterocycle compounds as aqueous phase corrosion inhibitors: A robust, effective and economic substitute. <i>Journal of Molecular Liquids</i> , 2021, 340, 117211.	2.3	24

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37	Synthesis of Macromolecular Aromatic Epoxy Resins as Anticorrosive Materials: Computational Modeling Reinforced Experimental Studies. ACS Omega, 2020, 5, 3151-3164.	1.6	23
38	Synthesis and characterization of walnut husk extract-silver nanocomposites for removal of heavy metals from petroleum wastewater and its consequences on pipework steel corrosion. Journal of Molecular Liquids, 2021, 335, 116132.	2.3	23
39	N-substituted carbazoles as corrosion inhibitors in microbiologically influenced and acidic corrosion of mild steel: Gravimetric, electrochemical, surface and computational studies. Journal of Molecular Structure, 2021, 1223, 129328.	1.8	22
40	Anti-corrosive property of bioinspired environmental benign imidazole and isoxazoline heterocyclics: A cumulative studies of experimental and DFT methods. Journal of Heterocyclic Chemistry, 2020, 57, 103-119.	1.4	21
41	Decyltriphenylphosphonium bromide containing hydrophobic alkyl-chain as a potential corrosion inhibitor for mild steel in sulfuric acid: Theoretical and experimental studies. Journal of Molecular Liquids, 2021, 336, 116166.	2.3	21
42	Ionic liquid-mediated functionalization of graphene-based materials for versatile applications: a review. Graphene Technology, 2019, 4, 1-15.	1.9	20
43	Present and emerging trends in using pharmaceutically active compounds as aqueous phase corrosion inhibitors. Journal of Molecular Liquids, 2021, 328, 115395.	2.3	20
44	Thiol (-SH) substituent as functional motif for effective corrosion protection: A review on current advancements and future directions. Journal of Molecular Liquids, 2021, 324, 115111.	2.3	17
45	Quantum dots as ecofriendly and aqueous phase substitutes of carbon family for traditional corrosion inhibitors: A perspective. Journal of Molecular Liquids, 2021, 343, 117648.	2.3	16
46	Trifunctional epoxy resin as anticorrosive material for carbon steel in 1 M HCl: Experimental and computational studies. Surfaces and Interfaces, 2020, 21, 100707.	1.5	13
47	Chelation capability of chitosan and chitosan derivatives: Recent developments in sustainable corrosion inhibition and metal decontamination applications. Current Research in Green and Sustainable Chemistry, 2021, 4, 100184.	2.9	13
48	Synthesis, characterization and corrosion inhibition potential of oxadiazole derivatives for mild steel in 1M HCl: Electrochemical and computational studies. Journal of Molecular Liquids, 2022, 348, 118021.	2.3	13
49	Influence of ring size on corrosion inhibition potential of environmental sustainable cycloalkyltriphenylphosphonium based ionic liquids: Computational and experimental demonstrations. Journal of the Taiwan Institute of Chemical Engineers, 2021, 123, 21-33.	2.7	8
50	Synthesis, Characterization, and Corrosion Inhibition Performance of 5-Aminopyrazole Carbonitriles Towards Mild Steel Acidic Corrosion. Journal of Bio- and Tribo-Corrosion, 2018, 4, 1.	1.2	6
51	Multifunctional silver nanocomposite: A potential material for antiscaling, antimicrobial and anticorrosive applications. Jcis Open, 2021, 3, 100012.	1.5	6
52	Synthesis, characterization and anticorrosive effect of 2-(phenoxy methyl)-5-phenyl-1, 3, 4-oxadiazole for mild steel in 1M HCl: A combined experimental and computational demonstrations. Journal of the Indian Chemical Society, 2022, 99, 100421.	1.3	6