

# Fouad Benhiba

## List of Publications by Year in descending order

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87  
papers

3,767  
citations

81900

39  
h-index

144013

57  
g-index

87  
all docs

87  
docs citations

87  
times ranked

791  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploitation of a new green inhibitor against mild steel corrosion in HCl: Experimental, DFT and MD simulation approach. <i>Journal of Molecular Liquids</i> , 2022, 349, 118102.	4.9	40
2	Synthesis, structural characterization, Hirshfeld surface analysis and anti-corrosion on mild steel in 1M HCl of ethyl 2-(3-methyl-2-oxo-1,2-dihydroquinoxaline-1-yl)acetate. <i>Journal of Molecular Structure</i> , 2022, 1251, 132047.	3.6	11
3	Development of New Pyrimidine Derivative Inhibitor for Mild Steel Corrosion in Acid Medium. <i>Journal of Bio- and Tribo-Corrosion</i> , 2022, 8, 1.	2.6	15
4	Performance of triazole derivatives as potential corrosion in-hibitors for mild steel in a strong phosphoric acid medium: Combining experimental and computational (DFT, MDs & QSAR) approaches. <i>Journal of Molecular Structure</i> , 2022, 1256, 132515.	3.6	18
5	HCl. <i>Journal of Bio- and Tribo-Corrosion</i> , 2022, 8, 1.	2.6	4
6	Isoxazoline Derivatives as Inhibitors for Mild Steel Corrosion in 1M H <sub>2</sub> SO <sub>4</sub> : Computational and Experimental Investigations. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 7204-7219.	2.5	2
7	Experimental and theoretical examinations of two quinolin-8-ol-piperazine derivatives as organic corrosion inhibitors for C35E steel in hydrochloric acid. <i>Journal of Molecular Liquids</i> , 2022, 354, 118900.	4.9	15
8	Experimental and theoretical investigations of two quinolin-8-ol derivatives as inhibitors for carbon steel in 1M HCl solution. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 165, 110699.	4.0	13
9	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
10	Molecular dynamics, DFT and electrochemical to study the interfacial adsorption behavior of new imidazo[4,5-b] pyridine derivative as corrosion inhibitor in acid medium. <i>Journal of Applied Electrochemistry</i> , 2021, 51, 245-265.	2.9	34
11	A newly synthesized quinoline derivative as corrosion inhibitor for mild steel in molar acid medium: Characterization (SEM/EDS), experimental and theoretical approach. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 610, 125746.	4.7	44
12	Green synthesis of novel carbohydrate polymer chitosan oligosaccharide grafted on d-glucose derivative as bio-based corrosion inhibitor. <i>Journal of Molecular Liquids</i> , 2021, 322, 114549.	4.9	77
13	Corrosion inhibition effect of 5-(4-methylpiperazine)-methylquinoline-8-ol on carbon steel in molar acid medium. <i>Inorganic Chemistry Communication</i> , 2021, 123, 108366.	3.9	16
14	New epoxy composite polymers as a potential anticorrosive coatings for carbon steel in 3.5% NaCl solution: Experimental and computational approaches. <i>Chemical Data Collections</i> , 2021, 31, 100619.	2.3	48
15	Pyridinium-based ionic liquids as novel eco-friendly corrosion inhibitors for mild steel in molar hydrochloric acid: Experimental & computational approach. <i>Surfaces and Interfaces</i> , 2021, 22, 100881.	3.0	35
16	Bio-active corrosion inhibitor based on 8-hydroxyquinoline-grafted-Alginate: Experimental and computational approaches. <i>Journal of Molecular Liquids</i> , 2021, 323, 114615.	4.9	17
17	New alkyl (cyclohexyl) 2-oxo-1-(propyl-2-yn-1-yl)-1, 2-dihydroquinoline-4-carboxylates: Synthesis, crystal structure, spectroscopic characterization, hirshfeld surface analysis, molecular docking studies and DFT calculations. <i>Journal of Molecular Structure</i> , 2021, 1227, 129520.	3.6	11
18	Experimental and empirical assessment of two new 8-hydroxyquinoline analogs as effective corrosion inhibitor for C22E steel in 1M HCl. <i>Journal of Molecular Liquids</i> , 2021, 325, 114644.	4.9	22

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19	Electrochemical studies, Monte Carlo simulation and DFT of a new composite - pentaglycidyl ether pentaphenoxy of phosphorus - crosslinked and hybrid in its coating behavior on E24 carbon steel in 3.5% NaCl. <i>Portugaliae Electrochimica Acta</i> , 2021, 39, 1-1.	1.1	5
20	Electrochemical and theoretical considerations for interfacial adsorption of novel long chain acid pyrazole for mild steel conservation in 1 M HCl medium. <i>Chemical Data Collections</i> , 2021, 31, 100638.	2.3	9
21	8-hydroxyquinoline grafted triazole derivatives as corrosion inhibitors for carbon steel in H <sub>2</sub> SO <sub>4</sub> solution: Electrochemical and theoretical studies. <i>Ionics</i> , 2021, 27, 2267-2288.	2.4	7
22	Experimental, Density Functional Theory, and Dynamic Molecular Studies of Imidazopyridine Derivatives as Corrosion Inhibitors for Mild Steel in Hydrochloric Acid. <i>Surface Engineering and Applied Electrochemistry</i> , 2021, 57, 233-254.	0.8	20
23	Synthesis and anti-corrosion characteristics of new 8-quinolinol analogs with amide-substituted on C35E steel in acidic medium: Experimental and computational ways. <i>Journal of Molecular Liquids</i> , 2021, 325, 115224.	4.9	14
24	Anti-corrosion performance of pyran-2-one derivatives for mild steel in acidic medium: Electrochemical and theoretical study. <i>Chemical Data Collections</i> , 2021, 32, 100655.	2.3	8
25	Anticorrosive properties of a green and sustainable inhibitor from leaves extract of <i>Cannabis sativa</i> plant: Experimental and theoretical approach. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 614, 126211.	4.7	71
26	Anticorrosion and adsorption performance of expired antibacterial drugs on Sabic iron corrosion in HCl solution: Chemical, electrochemical and theoretical approach. <i>Journal of Molecular Liquids</i> , 2021, 330, 115702.	4.9	50
27	Aminothiazolyl coumarin derivatives as effectual inhibitors to alleviate corrosion on mild steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> . <i>Journal of Applied Electrochemistry</i> , 2021, 51, 1323-1344.	2.9	6
28	The influence of low concentration of 2-(5-methyl-2-nitro-1H-imidazol-1-yl)ethyl benzoate on corrosion brass in 0.5 M H <sub>2</sub> SO <sub>4</sub> solution. <i>Surfaces and Interfaces</i> , 2021, 24, 101088.	3.0	7
29	Syntheses, single crystal X-ray structure, Hirshfeld surface analyses, DFT computations and Monte Carlo simulations of New Eugenol derivatives bearing 1,2,3-triazole moiety. <i>Journal of Molecular Structure</i> , 2021, 1234, 130189.	3.6	19
30	Insights into the inhibition mechanism of 2,5-bis(4-pyridyl)-1,3,4-oxadiazole for carbon steel corrosion in hydrochloric acid pickling via experimental and computational approaches. <i>Journal of Molecular Liquids</i> , 2021, 342, 116958.	4.9	28
31	Corrosion inhibition behavior of chalcone oxime derivatives on carbon steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> . <i>Journal of Applied Electrochemistry</i> , 2021, 51, 1755-1770.	2.9	13
32	Corrosion inhibition performance of 4-(prop-2-ynyl)-[1,4]-benzothiazin-3-one against mild steel in 1 M HCl solution: Experimental and theoretical studies. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 25800-25818.	7.1	41
33	Insight into the corrosion inhibition of new amino-acids as efficient inhibitors for mild steel in HCl solution: Experimental studies and theoretical calculations. <i>Journal of Molecular Liquids</i> , 2021, 334, 116520.	4.9	62
34	Chemical, electrochemical, quantum, and surface analysis evaluation on the inhibition performance of novel imidazo[4,5-b]pyridine derivatives against mild steel corrosion. <i>Corrosion Science</i> , 2021, 189, 109621.	6.6	69
35	DFT/electronic scale, MD simulation and evaluation of 6-methyl-2-(p-tolyl)-1,4-dihydroquinoxaline as a potential corrosion inhibition. <i>Journal of Molecular Liquids</i> , 2021, 335, 116539.	4.9	48
36	Appraisal of corrosion inhibiting ability of new 5-N-((alkylamino)methyl)quinolin-8-ol analogs for C40E steel in sulfuric acid. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 30246-30266.	7.1	22

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37	Insight into the corrosion inhibition property of two new soluble and non-toxic xanthenbenzoate derivatives. <i>Journal of Molecular Liquids</i> , 2021, 338, 116610.	4.9	19
38	Performance of curing epoxy resin as potential anticorrosive coating for carbon steel in 3.5% NaCl medium: Combining experimental and computational approaches. <i>Chemical Physics Letters</i> , 2021, 783, 139081.	2.6	46
39	Chalcone oxime derivatives as new inhibitors corrosion of carbon steel in 1 M HCl solution. <i>Journal of Molecular Liquids</i> , 2021, 337, 116398.	4.9	29
40	Insight into the corrosion inhibition of novel macromolecular epoxy resin as highly efficient inhibitor for carbon steel in acidic mediums: Synthesis, characterization, electrochemical techniques, AFM/UV-Visible and computational investigations. <i>Journal of Molecular Liquids</i> , 2021, 337, 116492.	4.9	92
41	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
42	Insight into the corrosion inhibition of new benzodiazepine derivatives as highly efficient inhibitors for mild steel in 1 M HCl: Experimental and theoretical study. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 629, 127428.	4.7	26
43	Carbon steel corrosion inhibition in H <sub>2</sub> SO <sub>4</sub> 0.5 M medium by thiazole-based molecules: Weight loss, electrochemical, XPS and molecular modeling approaches. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 630, 127556.	4.7	18
44	Investigation and comparative study of the quantum molecular descriptors derived from the theoretical modeling and Monte Carlo simulation of two new macromolecular polyepoxide architectures TGEEBA and HGEMDA. <i>Journal of King Saud University - Science</i> , 2020, 32, 667-676.	3.5	42
45	Anticorrosion effect of a green sustainable inhibitor on mild steel in hydrochloric acid. <i>Journal of Colloid and Interface Science</i> , 2020, 580, 740-752.	9.4	70
46	Synthesis and characterization of novel Cu (II) and Zn (II) complexes of 5-[(2-Hydroxyethyl) sulfanyl] methyl]-8-hydroxyquinoline as effective acid corrosion inhibitor by experimental and computational testings. <i>Chemical Physics Letters</i> , 2020, 754, 137771.	2.6	50
47	Tetrahydropyrimido-Triazepine derivatives as anti-corrosion additives for acid corrosion: Chemical, electrochemical, surface and theoretical studies. <i>Chemical Physics Letters</i> , 2020, 743, 137181.	2.6	73
48	Study of adsorption mechanism of chalcone derivatives on mild steel-sulfuric acid interface. <i>Journal of Molecular Liquids</i> , 2020, 318, 113890.	4.9	14
49	An experimental-coupled empirical investigation on the corrosion inhibitory action of 7-alkyl-8-Hydroxyquinolines on C35E steel in HCl electrolyte. <i>Journal of Molecular Liquids</i> , 2020, 317, 113973.	4.9	55
50	Experimental studies and computational exploration on the 2-amino-5-(2-methoxyphenyl)-1,3,4-thiadiazole as novel corrosion inhibitor for mild steel in acidic environment. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 604, 125320.	4.7	43
51	Amino acid structure analog as a corrosion inhibitor of carbon steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> : Electrochemical, synergistic effect and theoretical studies. <i>Chemical Data Collections</i> , 2020, 30, 100586.	2.3	36
52	Combined electronic/atomic level computational, surface (SEM/EDS), chemical and electrochemical studies of the mild steel surface by quinoxalines derivatives anti-corrosion properties in 1 M HCl solution. <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 1436-1458.	3.5	43
53	5,5-DIPHENYL-2-THIOXOIMIDAZOLIDIN-4-ONE METHODOLOGICAL MECHANISM TO CORROSION INHIBITION FOR MILD STEEL DISSOLUTION IN HCL: DFTS, MOLECULAR DYNAMICS AND EXPERIMENTAL PROCEDURES. <i>Surface Review and Letters</i> , 2020, 27, 2050005.	1.1	2
54	Coupling of chemical, electrochemical and theoretical approach to study the corrosion inhibition of mild steel by new quinoxaline compounds in 1 M HCl. <i>Heliyon</i> , 2020, 6, e03939.	3.2	57

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55	Nitro substituent effect on the electronic behavior and inhibitory performance of two quinoxaline derivatives in relation to the corrosion of mild steel in 1M HCl. <i>Journal of Molecular Liquids</i> , 2020, 312, 113367.	4.9	67
56	Synthesis of new epoxy glucose derivatives as a non-toxic corrosion inhibitors for carbon steel in molar HCl: Experimental, DFT and MD simulation. <i>Chemical Data Collections</i> , 2020, 27, 100394.	2.3	58
57	The inhibitory effect of two 5-alkylthio-8-hydroxyquinoline salts on steel C22E in a molar electrolyte of hydrochloric acid: Experimental and theoretical studies. <i>Surfaces and Interfaces</i> , 2020, 20, 100575.	3.0	10
58	Chemical, electrochemical and theoretical studies of 3-methyl-5,5-diphenylimidazolidine-2,4-dione as corrosion inhibitor for mild steel in HCl solution. <i>Chemical Data Collections</i> , 2020, 28, 100454.	2.3	18
59	Evaluation of <i>Lavandula mairei</i> extract as green inhibitor for mild steel corrosion in 1M HCl solution. Experimental and theoretical approach. <i>Journal of Molecular Liquids</i> , 2020, 313, 113493.	4.9	110
60	Computational, MD simulation, SEM/EDX and experimental studies for understanding adsorption of benzimidazole derivatives as corrosion inhibitors in 1.0M HCl solution. <i>Journal of Alloys and Compounds</i> , 2020, 844, 155842.	5.5	114
61	Preparation and anti-corrosion activity of novel 8-hydroxyquinoline derivative for carbon steel corrosion in HCl molar: Computational and experimental analyses. <i>Journal of Molecular Liquids</i> , 2020, 307, 112923.	4.9	59
62	Experimental and computational approaches on the pyran derivatives for acid corrosion. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 603, 125231.	4.7	60
63	Electrochemical and theoretical insights on the adsorption and corrosion inhibition of novel pyridinium-derived ionic liquids for mild steel in 1M HCl. <i>Journal of Molecular Liquids</i> , 2020, 314, 113737.	4.9	86
64	Acid corrosion inhibition of ferrous and non-ferrous metal by nature friendly Ethoxycarbonylmethyltriphenylphosphonium Bromide (ECMTPB): Experimental and MD simulation evaluation. <i>Journal of Molecular Liquids</i> , 2020, 315, 113705.	4.9	31
65	Thiazolo thiazole derivatives as anti-corrosion additives for acid corrosion. <i>Chemical Data Collections</i> , 2020, 26, 100358.	2.3	29
66	Trifunctional epoxy polymer as corrosion inhibition material for carbon steel in 1.0M HCl: MD simulations, DFT and complexation computations. <i>Inorganic Chemistry Communication</i> , 2020, 115, 107858.	3.9	162
67	Synthesis, characterization and corrosion inhibition potential of newly benzimidazole derivatives: Combining theoretical and experimental study. <i>Surfaces and Interfaces</i> , 2020, 18, 100442.	3.0	29
68	Development and potential performance of prepolymer in corrosion inhibition for carbon steel in 1.0M HCl: Outlooks from experimental and computational investigations. <i>Journal of Colloid and Interface Science</i> , 2020, 574, 43-60.	9.4	175
69	Sample synthesis, characterization, experimental and theoretical study of the inhibitory power of new 8-hydroxyquinoline derivatives for mild steel in 1.0M HCl. <i>Journal of Molecular Structure</i> , 2020, 1213, 128155.	3.6	58
70	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.	9.4	57
71	Isopentyltriphenylphosphonium bromide ionic liquid as a newly effective corrosion inhibitor on metal-electrolyte interface in acidic medium: Experimental, surface morphological (SEM-EDX) and theoretical studies. <i>Journal of Molecular Liquids</i> , 2020, 314, 113737.	4.9	86
72	Corrosion inhibition of mild steel by new Benzothiazine derivative in a hydrochloric acid solution: Experimental evaluation and theoretical calculations. <i>Chemical Data Collections</i> , 2019, 22, 100252.	2.3	49

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73	Benzodiazepine Derivatives as Corrosion Inhibitors of Carbon Steel in HCl Media: Electrochemical and Theoretical Studies. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2019, 55, 986-1000.	1.1	25
74	Corrosion assesement of mild steel in acid environment using novel triazole derivative as a anti-corrosion agent: A combined experimental and quantum chemical study. <i>Chemical Data Collections</i> , 2019, 24, 100302.	2.3	46
75	The inhibitive impact of both kinds of 5-isothiocyanatomethyl-8-hydroxyquinoline derivatives on the corrosion of carbon steel in acidic electrolyte. <i>Journal of Molecular Liquids</i> , 2019, 295, 111629.	4.9	66
76	Performance and computational studies of two soluble pyran derivatives as corrosion inhibitors for mild steel in HCl. <i>Journal of Molecular Structure</i> , 2019, 1196, 231-244.	3.6	76
77	Performance and computational studies of new soluble triazole as corrosion inhibitor for carbon steel in HCl. <i>Chemical Data Collections</i> , 2019, 22, 100242.	2.3	51
78	Synthesis, Experimental and Theoretical Investigation of Tetrazole Derivative as an Effective Corrosion Inhibitor for Mild Steel in 1M HCl. <i>Journal of Bio- and Tribo-Corrosion</i> , 2019, 5, 1.	2.6	18
79	Novel derivative epoxy resin TGETET as a corrosion inhibition of E24 carbon steel in 1.0M HCl solution. Experimental and computational (DFT and MD simulations) methods. <i>Journal of Molecular Liquids</i> , 2019, 284, 182-192.	4.9	178
80	Corrosion Inhibition of Ordinary Steel in 5.0M HCl Medium by Benzimidazole Derivatives: Electrochemical, UV-Visible Spectrometry, and DFT Calculations. <i>Journal of Bio- and Tribo-Corrosion</i> , 2019, 5, 1.	2.6	63
81	Two new 8-hydroxyquinoline derivatives as an efficient corrosion inhibitors for mild steel in hydrochloric acid: Synthesis, electrochemical, surface morphological, UV-visible and theoretical studies. <i>Journal of Molecular Liquids</i> , 2019, 276, 120-133.	4.9	117
82	Synthesis and investigation of quinazoline derivatives based on 8-hydroxyquinoline as corrosion inhibitors for mild steel in acidic environment: experimental and theoretical studies. <i>Ionics</i> , 2019, 25, 3473-3491.	2.4	46
83	New quinoxaline derivative as a green corrosion inhibitor for mild steel in mild acidic medium: Electrochemical and theoretical studies. <i>International Journal of Corrosion and Scale Inhibition</i> , 2019, 8, .	0.6	7
84	Practical and Theoretical Study on the Inhibitory Influences of New Azomethine Derivatives Containing an 8-Hydroxyquinoline Moiety for the Corrosion of Carbon Steel in 1 M HCl. <i>Oriental Journal of Chemistry</i> , 2018, 34, 3016-3029.	0.3	38
85		1.3	37
86	Experimental and theoretical studies of 5-((4-phenyl-4,5-dihydro-1H-tetrazol-1-yl)methyl)-quinolin-8-ol quinoline derivative as effective corrosion inhibitor for mild steel 1.0 HCl. <i>Journal of Materials and Environmental Science</i> , 2018, 9, 345-357.	0.5	5
87	Inhibitor effect of new azomethine derivative containing an 8-hydroxyquinoline moiety on corrosion behavior of mild carbon steel in acidic media. <i>International Journal of Corrosion and Scale Inhibition</i> , 2018, 7, .	0.6	6