

# Metwally Abdallah

## List of Publications by Year in descending order

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106  
papers

4,998  
citations

87843

38  
h-index

98753

67  
g-index

107  
all docs

107  
docs citations

107  
times ranked

1959  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rhodanine azosulpha drugs as corrosion inhibitors for corrosion of 304 stainless steel in hydrochloric acid solution. <i>Corrosion Science</i> , 2002, 44, 717-728.	3.0	376
2	Corrosion inhibition of some metals using lawsonia extract. <i>Corrosion Science</i> , 2005, 47, 385-395.	3.0	375
3	Antibacterial drugs as corrosion inhibitors for corrosion of aluminium in hydrochloric solution. <i>Corrosion Science</i> , 2004, 46, 1981-1996.	3.0	314
4	Guar Gum as Corrosion Inhibitor for Carbon Steel in Sulfuric Acid Solutions. <i>Portugaliae Electrochimica Acta</i> , 2004, 22, 161-175.	0.4	186
5	Three novel di-quaternary ammonium salts as corrosion inhibitors for API X65 steel pipeline in acidic solution. Part I: Experimental results. <i>Corrosion Science</i> , 2014, 81, 54-64.	3.0	184
6	Natural honey as corrosion inhibitor for metals and alloys. II. C-steel in high saline water. <i>Corrosion Science</i> , 2000, 42, 731-738.	3.0	165
7	Novel cationic gemini surfactants as corrosion inhibitors for carbon steel pipelines. <i>Corrosion Science</i> , 2010, 52, 2897-2904.	3.0	149
8	Ethoxylated fatty alcohols as corrosion inhibitors for dissolution of zinc in hydrochloric acid. <i>Corrosion Science</i> , 2003, 45, 2705-2716.	3.0	142
9	Aminopyrimidine derivatives as inhibitors for corrosion of 1018 carbon steel in nitric acid solution. <i>Corrosion Science</i> , 2006, 48, 1639-1654.	3.0	140
10	Corrosion behaviour of 304 stainless steel in sulphuric acid solutions and its inhibition by some substituted pyrazolones. <i>Materials Chemistry and Physics</i> , 2003, 82, 786-792.	2.0	114
11	Thermodynamic, kinetic and mechanistic approach to the corrosion inhibition of carbon steel by new synthesized amino acids-based surfactants as green inhibitors in neutral and alkaline aqueous media. <i>Journal of Molecular Liquids</i> , 2018, 265, 276-291.	2.3	102
12	Natural nutmeg oil as a green corrosion inhibitor for carbon steel in 1.0 M HCl solution: Chemical, electrochemical, and computational methods. <i>Journal of Molecular Liquids</i> , 2021, 323, 115036.	2.3	101
13	Cu <sup>2+</sup> cation+3,5-dimethyl pyrazole mixture as a corrosion inhibitor for carbon steel in sulfuric acid solution. <i>Materials Chemistry and Physics</i> , 2001, 71, 291-298.	2.0	90
14	Experimental and theoretical approach studies for melatonin drug as safely corrosion inhibitors for carbon steel using DFT. <i>Journal of Molecular Liquids</i> , 2016, 222, 1157-1163.	2.3	85
15	Inhibition properties and adsorption behavior of 5-arylthiazole derivatives on 1018 carbon steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> solution. <i>Journal of Molecular Liquids</i> , 2016, 216, 590-597.	2.3	74
16	Some natural aqueous extracts of plants as green inhibitor for carbon steel corrosion in 0.5 M sulfuric acid. <i>Green Chemistry Letters and Reviews</i> , 2018, 11, 189-196.	2.1	74
17	Corrosion Inhibition Effect of Expired Ampicillin and Flucloxacillin Drugs for Mild Steel in Aqueous Acidic Medium. <i>International Journal of Electrochemical Science</i> , 2020, 15, 3283-3297.	0.5	74
18	Electrochemical and theoretical investigation for some pyrazolone derivatives as inhibitors for the corrosion of C-steel in 0.5 M hydrochloric acid. <i>Journal of Molecular Liquids</i> , 2019, 288, 110994.	2.3	68

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19	Adsorption and inhibition performance of the novel cationic Gemini surfactant as a safe corrosion inhibitor for carbon steel in hydrochloric acid. <i>Green Chemistry Letters and Reviews</i> , 2018, 11, 457-468.	2.1	65
20	Antihypertensive drugs as an inhibitors for corrosion of aluminum and aluminum silicon alloys in aqueous solutions. <i>Arabian Journal of Chemistry</i> , 2012, 5, 225-234.	2.3	64
21	Performance of tramadol drug as a safe inhibitor for aluminum corrosion in 1.0 M HCl solution and understanding mechanism of inhibition using DFT. <i>Egyptian Journal of Petroleum</i> , 2019, 28, 173-181.	1.2	58
22	Adsorption and inhibition effect of novel cationic surfactant for pipelines carbon steel in acidic solution. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2016, 52, 721-730.	0.3	55
23	Corrosion inhibition of aluminum in hydrochloric acid by pyrazinamide derivatives. <i>Journal of Molecular Liquids</i> , 2016, 223, 1143-1150.	2.3	54
24	New Synthesized Amino Acids-based Surfactants as Efficient Inhibitors for Corrosion of Mild Steel in Hydrochloric Acid Medium: Kinetics and Thermodynamic Approach. <i>International Journal of Electrochemical Science</i> , 2018, 13, 4575-4600.	0.5	52
25	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.	2.3	50
26	The Effect of Non Ionic Surfactants Containing Triazole, Thiadiazole and Oxadiazole as Inhibitors of the Corrosion of Carbon Steel in 1M Hydrochloric Acid. <i>Journal of Surfactants and Detergents</i> , 2013, 16, 937-946.	1.0	49
27	Animal glue as green inhibitor for corrosion of aluminum and aluminum-silicon alloys in sodium hydroxide solutions. <i>Journal of Molecular Liquids</i> , 2016, 220, 755-761.	2.3	49
28	Corrosion Inhibition of Carbon Steel in 1 M Hydrochloric Acid using Some Pyrazolo[3,4-d]Pyrimidinone Derivatives. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2018, 54, 113-121.	0.3	48
29	Sildenafil citrate (Viagra) as a corrosion inhibitor for carbon steel in hydrochloric acid solutions. <i>Monatshefte für Chemie</i> , 2012, 143, 1379-1387.	0.9	46
30	Estimation of Water-Soluble Polymers (Poloxamer and Pectin) as Corrosion Inhibitors for Carbon Steel in Acidic Medium. <i>International Journal of Electrochemical Science</i> , 2020, 15, 8129-8144.	0.5	43
31	Inhibiting effect of Ni <sup>2+</sup> cation+3-methyl pyrazolone as a corrosion inhibitor for carbon steel in sulfuric acid solution. <i>Materials Chemistry and Physics</i> , 2009, 118, 111-117.	2.0	42
32	Corrosion Inhibition of Stainless Steel Type 316 L in 1.0 M HCl Solution Using 1,3-Thiazolidin-5-one Derivatives. <i>International Journal of Electrochemical Science</i> , 2017, 12, 4543-4562.	0.5	42
33	The Effect of Expired Acyclovir and Omeprazole Drugs on the Inhibition of Sabic Iron Corrosion in HCl Solution. <i>International Journal of Electrochemical Science</i> , 2020, 15, 4739-4753.	0.5	42
34	Maltodextrin and Chitosan Polymers as Inhibitors for the Corrosion of Carbon Steel in 1.0 M Hydrochloric Acid. <i>International Journal of Electrochemical Science</i> , 2020, 15, 5650-5663.	0.5	42
35	Enhancement of adsorption and anticorrosion performance of two polymeric compounds for the corrosion of SABIC carbon steel in hydrochloric acid. <i>Journal of Adhesion Science and Technology</i> , 2022, 36, 35-53.	1.4	42
36	Influence of N-thiazolyl-2-cyanoacetamide derivatives on the corrosion of aluminum in 0.01 M sodium hydroxide. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2014, 50, 659-666.	0.3	41

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37	Corrosion Inhibition Performance of a Novel Cationic Surfactant for protection of Carbon Steel Pipeline in Acidic Media. International Journal of Electrochemical Science, 2018, 13, 6824-6842.	0.5	40
38	Propoxylated Fatty Esters as Safe Inhibitors for Corrosion of Zinc in Hydrochloric Acid. Protection of Metals and Physical Chemistry of Surfaces, 2020, 56, 225-232.	0.3	40
39	Inhibiting Properties of Some Heterocyclic Amide Derivatives as Potential Nontoxic Corrosion Inhibitors for Carbon Steel in 1.0 M Sulfuric Acid. Surface Engineering and Applied Electrochemistry, 2018, 54, 599-606.	0.3	39
40	Corrosion Inhibition of Sabc Iron in Different Media Using Synthesized Sodium N-dodecyl Arginine Surfactant. International Journal of Electrochemical Science, 2019, , 2063-2084.	0.5	39
41	Corrosion inhibition of aluminum in 1M H3PO4 solutions by ethanolamines. Arabian Journal of Chemistry, 2012, 5, 297-307.	2.3	38
42	Synthesis of some aromatic nitro compounds and its applications as inhibitors for corrosion of carbon steel in hydrochloric acid solution. Protection of Metals and Physical Chemistry of Surfaces, 2013, 49, 485-491.	0.3	37
43	Some crown ethers as inhibitors for corrosion of stainless steel type 430 in aqueous solutions. Desalination, 2010, 250, 538-543.	4.0	35
44	Ketamine Drug as an Inhibitor for the Corrosion of 316 Stainless Steel in 2M HCl Solution. International Journal of Electrochemical Science, 2019, 14, 10227-10247.	0.5	35
45	Some organic and inorganic compounds as inhibitors for carbon steel corrosion in 3.5 percent NaCl solution. Anti-Corrosion Methods and Materials, 2006, 53, 118-123.	0.6	34
46	INHIBITION OF ACIDIC AND PITTING CORROSION OF NICKEL USING NATURAL BLACK CUMIN OIL. Chemical Engineering Communications, 2010, 197, 1446-1454.	1.5	34
47	Corrosion inhibition of aluminum in 1.0M HCl solution by some nonionic surfactant compounds containing five membered heterocyclic moiety. Chemical Data Collections, 2020, 28, 100407.	1.1	33
48	Corrosion Inhibition of Nickel in Sulfuric Acid Using Tween Surfactants. Portugaliae Electrochimica Acta, 2003, 21, 315-326.	0.4	33
49	Gelatin as corrosion inhibitor for aluminum and aluminum silicon alloys in sodium hydroxide solutions. Protection of Metals and Physical Chemistry of Surfaces, 2016, 52, 140-148.	0.3	29
50	INHIBITION OF CARBON STEEL CORROSION BY SOME CYANOACETOHYDRAZIDE DERIVATIVES IN HCl SOLUTION. Chemical Engineering Communications, 2010, 197, 1091-1108.	1.5	28
51	Competent inhibitor for the corrosion of zinc in hydrochloric acid based on 2,6-bis-[1-(2-phenylhydrazono)ethyl]pyridine. Chemical Engineering Communications, 2019, 206, 137-148.	1.5	28
52	INHIBITION OF THE CORROSION OF NICKEL AND ITS ALLOYS BY NATURAL CLOVE OIL. Chemical Engineering Communications, 2009, 196, 1406-1416.	1.5	27
53	Experimental and Theoretical Investigation by DFT on the Some Azole Antifungal Drugs as Green Corrosion Inhibitors for Aluminum in 1.0M HCl. Protection of Metals and Physical Chemistry of Surfaces, 2018, 54, 503-512.	0.3	27
54	Enhancing the inhibition and adsorption performance of SABIC iron corrosion in sulfuric acid by expired vitamins. Experimental and computational approach. RSC Advances, 2021, 11, 17092-17107.	1.7	26

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55	The polarographic and corrosion inhibition performance of some Schiff base compounds derived from 2-amino-3-hydroxypyridine in aqueous media. <i>Egyptian Journal of Petroleum</i> , 2019, 28, 393-399.	1.2	25
56	Inhibition of Acidic Corrosion of Carbon Steel by some Mono and Bis Azo Dyes Based on 1, 5 Dihydroxynaphthalene. <i>Annali Di Chimica</i> , 2004, 94, 601-611.	0.6	24
57	Corrosion Inhibition of Aluminum using Nonionic Surfactant Compounds with a Six Membered Heterocyclic Ring in 1.0M HCl Solution. <i>International Journal of Electrochemical Science</i> , 2019, 14, 3509-3523.	0.5	24
58	Corrosion Inhibition and Adsorption Properties of Some Heterocyclic Derivatives on C-Steel Surface in HCl. <i>Journal of Bio- and Tribo-Corrosion</i> , 2020, 6, 1.	1.2	24
59	Insight of corrosion mitigation performance of SABIC iron in 0.5M HCl solution by tryptophan and histidine: Experimental and computational approaches. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 12782-12797.	3.8	24
60	Natural oils as corrosion inhibitors for stainless steel in sodium hydroxide solutions. <i>Chemistry and Technology of Fuels and Oils</i> , 2012, 48, 234-245.	0.2	22
61	Some Schiff base compounds as inhibitors for corrosion of carbon steel in acidic media. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2012, 48, 477-486.	0.3	22
62	Performance of unprecedented synthesized biosurfactants as green inhibitors for the corrosion of mild steel-37-2 in neutral solutions: a mechanistic approach. <i>Green Chemistry Letters and Reviews</i> , 2021, 14, 488-499.	2.1	22
63	Inhibition Potentials and Adsorption Performance of Two Sulfonyleurea Antibiotic Expired Drugs on the Corrosion of Mild Steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> . <i>International Journal of Electrochemical Science</i> , 2020, 15, 10289-10303.	0.5	22
64	Expired azithromycin and roxithromycin drugs as environmentally friendly inhibitors for mild steel corrosion in H <sub>2</sub> SO <sub>4</sub> solutions. <i>Green Chemistry Letters and Reviews</i> , 2021, 14, 509-518.	2.1	20
65	Bisquinoline analogs as corrosion inhibitors for carbon steel in acidic electrolyte: Experimental, DFT, and molecular dynamics simulation approaches. <i>Journal of Molecular Structure</i> , 2022, 1265, 133389.	1.8	20
66	Ni <sup>2+</sup> cation and imidazole as corrosion inhibitors for carbon steel in sulfuric acid solutions. <i>Monatshfte für Chemie</i> , 2010, 141, 1287-1295.	0.9	19
67	Phenazone and aminophenazone as corrosion inhibitors for aluminum in HCl solution. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2011, 47, 803-812.	0.3	19
68	Inhibition of Zinc Corrosion by Some Benzaldehyde Derivatives in HCl Solution. <i>Journal of Materials Engineering and Performance</i> , 2012, 21, 995-1002.	1.2	18
69	N-(2-hydroxyphenyl)hydrazones as inhibitors for corrosion of carbon steel in H <sub>2</sub> SO <sub>4</sub> acid solution. <i>Anti-Corrosion Methods and Materials</i> , 2011, 58, 63-69.	0.6	17
70	N,N'-di(polyoxyethylene)-4-dodecylaniline as a corrosion inhibitor for steel in hydrochloric acid solutions. <i>Chemistry and Technology of Fuels and Oils</i> , 2012, 47, 453-463.	0.2	17
71	Cephalosporin antibiotics as new corrosion inhibitors for nickel in HCl solution. <i>Research on Chemical Intermediates</i> , 2014, 40, 1249-1266.	1.3	17
72	Natural parsley oil as a green and safe inhibitor for corrosion of X80 carbon steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> solution: a chemical, electrochemical, DFT and MC simulation approach. <i>RSC Advances</i> , 2022, 12, 2959-2971.	1.7	17

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73	Appraisal of synthetic cationic Gemini surfactants as highly efficient inhibitors for carbon steel in the acidization of oil and gas wells: an experimental and computational approach. RSC Advances, 2022, 12, 17050-17064.	1.7	17
74	Breakdown of passivity of nickel electrode in sulfuric acid and its inhibition by pyridinone derivatives using the galvanostatic polarization technique. International Journal of Corrosion and Scale Inhibition, 2015, 4, 338-352.	0.5	16
75	Cyclic voltammograms of iron and C-steels in oxalic acid solutions and investigation of the effect of phenyl phthalimide as corrosion inhibitors. Monatshefte für Chemie, 1995, 126, 519-527.	0.9	15
76	Polarographic Performance of Some Azo Derivatives Derived from 2-amino-4-hydroxy Pyridine and Its Inhibitory Effect on C-steel Corrosion in Hydrochloric acid. Oriental Journal of Chemistry, 2019, 35, 98-109.	0.1	15
77	Expired amoxicillin and cefuroxime drugs as efficient anticorrosives for Sabc iron in 1.0 M hydrochloric acid solution. Chemical Engineering Communications, 2022, 209, 158-170.	1.5	15
78	Azole derivatives as inhibitors for the corrosion of irradiated and non-irradiated carbon steel in HNO <sub>3</sub> solution. Anti-Corrosion Methods and Materials, 2011, 58, 31-38.	0.6	14
79	Sildenafil drug as a safe anticorrosion for 6063 aluminum alloy in acidic and alkaline solutions: Theoretical and experimental studies. Egyptian Journal of Petroleum, 2020, 29, 211-218.	1.2	14
80	Synthesis of Nonionic Surfactants Containing Five Membered Ring: Application as Corrosion Inhibitor of Carbon Steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> Solution. Protection of Metals and Physical Chemistry of Surfaces, 2021, 57, 389-397.	0.3	14
81	Corrosion inhibition of stainless steel type 316L in hydrochloric acid solution using p-aminoazobenzene derivatives. Protection of Metals and Physical Chemistry of Surfaces, 2015, 51, 473-480.	0.3	13
82	Corrosion Performance of Stainless Steel and Nickel Alloys in Aqueous Sodium Hydroxide as Revealed from Cyclic Voltammetry and Potentiodynamic Anodic Polarization. Oriental Journal of Chemistry, 2017, 33, 2875-2883.	0.1	13
83	Oxidative degradation of neomycin and streptomycin by cerium(IV) in sulphuric and perchloric acid solutions. Journal of Molecular Liquids, 2020, 312, 113439.	2.3	12
84	Investigation of the anticorrosion and adsorption properties of two polymer compounds on the corrosion of SABIC iron in 1 M HCl solution by practical and computational approaches. RSC Advances, 2022, 12, 20122-20137.	1.7	12
85	Electrochemical and Theoretical Investigation for the Protection of Aluminum Corrosion in Hydrochloric Acid using Some Azole Derivatives. Protection of Metals and Physical Chemistry of Surfaces, 2018, 54, 1204-1212.	0.3	11
86	Some quinazoline derivatives as corrosion inhibitors for copper in HNO <sub>3</sub> solution. Desalination and Water Treatment, 2010, 22, 340-348.	1.0	10
87	Rosemary oil as a corrosion inhibitor for carbon steel in 0.5 M sulfuric acid solution. Chemistry and Technology of Fuels and Oils, 2011, 47, 66-74.	0.2	10
88	Degradation of Ampicillin and Flucloxacillin Antibiotics via Oxidation by Alkaline Hexacyanoferrate(III): Kinetics and Mechanistic Aspects. Industrial & Engineering Chemistry Research, 2020, 59, 16217-16224.	1.8	10
89	Synthesis and Estimation of Some Surface-Active Compounds Derived from Fused Pyridine as Corrosion Inhibitors for Aluminum in Hydrochloric Acid Solutions. Protection of Metals and Physical Chemistry of Surfaces, 2021, 57, 811-819.	0.3	10
90	Amidopoly Ethylamines as Corrosion Inhibitors for Zinc Dissolution in Different Acidic Electrolytes. Portugaliae Electrochimica Acta, 2009, 27, 615-630.	0.4	10

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91	Study of sulfanyl pyridazine derivatives as efficient corrosion inhibitors for carbon steel in 1.0 M HCl using analytical techniques. <i>International Journal of Corrosion and Scale Inhibition</i> , 0, , .	0.5	10
92	Corrosion Inhibition of Two Aluminum Silicon Alloys in 0.5 M HCl Solution by Some Azole Derivatives Using Electrochemical Techniques. <i>Surface Engineering and Applied Electrochemistry</i> , 2019, 55, 172-182.	0.3	9
93	Use of some natural oils as crude pipeline corrosion inhibitors in sodium hydroxide solutions. <i>Chemistry and Technology of Fuels and Oils</i> , 2010, 46, 354-362.	0.2	8
94	Tetrahydrocarbazole Derivatives as Corrosion Inhibitors for Zinc in HCl Solution. <i>Modern Applied Science</i> , 2010, 4, .	0.4	8
95	Enhancing the anticorrosion performance of mild steel in sulfuric acid using synthetic non-ionic surfactants: practical and theoretical studies. <i>Green Chemistry Letters and Reviews</i> , 2021, 14, 382-394.	2.1	8
96	Oxidative degradation of some antibiotics by permanganate ion in alkaline medium: A kinetic and mechanistic approach. <i>Tropical Journal of Pharmaceutical Research</i> , 2020, 19, 1999-2007.	0.2	8
97	Corrosion Inhibition of Copper in Nitric Acid Solution Using Some Secondary Amines. <i>Corrosion</i> , 2012, 68, 610-619.	0.5	7
98	Natural Occurring Substances as Corrosion Inhibitors for Tin in Sodium Bicarbonate Solutions. <i>Journal of the Korean Chemical Society</i> , 2009, 53, 485-490.	0.2	7
99	Effect of some amidopoly ethylamine on corrosion of zinc electrode used in zinc-manganese batteries. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2011, 47, 246-252.	0.3	5
100	Electrochemical Studies and the Electrode Reaction Mechanism of Ferrocene and Naphthoquinones in Microemulsion Medium at GC Electrode. <i>International Journal of Electrochemical Science</i> , 2020, , 6522-6548.	0.5	5
101	Inhibitive performance of dapoxetine drug for corrosion of aluminum alloy (AA6063) in acidic and alkaline solutions: experimental and theoretical studies using Materials Studio v7.0. , 0, 221, 270-280.		5
102	Mechanistic and thermodynamic aspects of oxidative removal of flucloxacillin by different oxidants in an acidic medium. <i>Journal of Molecular Liquids</i> , 2021, 325, 115160.	2.3	5
103	Effect of Some Analytical Organic Indicators on the Corrosion of Nickel in Carbonate Solution. <i>Portugaliae Electrochimica Acta</i> , 2009, 27, 77-85.	0.4	4
104	Synthesis, Surface Properties and Inhibiting Action of Novel Nonionic Surfactants on Carbon Steel Corrosion in 1 M Hydrochloric Acid Solution. <i>Chemical Engineering Communications</i> , 0, , 151015052853008.	1.5	3
105	Enhancing the Inhibition Effect and Adsorption Efficiency of Ethoxylated Dodecyl Alcohols on Corrosion of 316 Stainless Steels in 2M HCl. <i>International Journal of Electrochemical Science</i> , 2021, 16, 210622.	0.5	2
106	Investigation of the anodic behavior of nickel in H <sub>2</sub> SO <sub>4</sub> solutions using galvanostatic polarization technique. III. Inhibition of pitting corrosion using nitrogen-containing organic compounds. , 0, 244, 147-156.		0