

Emeka E Oguzie

List of Publications by Year in descending order

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74
papers

4,050
citations

147801

31
h-index

118850

62
g-index

74
all docs

74
docs citations

74
times ranked

2519
citing authors

#	ARTICLE	IF	CITATIONS
1	Corrosion inhibition and adsorption behavior of methionine on mild steel in sulfuric acid and synergistic effect of iodide ion. <i>Journal of Colloid and Interface Science</i> , 2007, 310, 90-98.	9.4	402
2	Evaluation of the inhibitive effect of some plant extracts on the acid corrosion of mild steel. <i>Corrosion Science</i> , 2008, 50, 2993-2998.	6.6	316
3	Unmasking chloride attack on the passive film of metals. <i>Nature Communications</i> , 2018, 9, 2559.	12.8	255
4	Studies on the inhibitive effect of <i>Occimum viridis</i> extract on the acid corrosion of mild steel. <i>Materials Chemistry and Physics</i> , 2006, 99, 441-446.	4.0	207
5	Adsorption and corrosion-inhibiting effect of <i>Dacryodis edulis</i> extract on low-carbon-steel corrosion in acidic media. <i>Journal of Colloid and Interface Science</i> , 2010, 349, 283-292.	9.4	203
6	Natural Products for Materials Protection: Mechanism of Corrosion Inhibition of Mild Steel by Acid Extracts of <i>Piper guineense</i> . <i>Journal of Physical Chemistry C</i> , 2012, 116, 13603-13615.	3.1	159
7	The effect of Cu addition on the electrochemical corrosion and passivation behavior of stainless steels. <i>Electrochimica Acta</i> , 2010, 55, 5028-5035.	5.2	150
8	Corrosion Inhibition and Adsorption Behavior of <i>Punica granatum</i> Extract on Mild Steel in Acidic Environments: Experimental and Theoretical Studies. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 668-677.	3.7	149
9	Natural Products for Materials Protection: Corrosion and Microbial Growth Inhibition Using <i>Capsicum frutescens</i> Biomass Extracts. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 214-225.	6.7	105
10	Understanding corrosion inhibition mechanisms—experimental and theoretical approach. <i>RSC Advances</i> , 2011, 1, 866.	3.6	104
11	Experimental, quantum chemical calculations, and molecular dynamic simulations insight into the corrosion inhibition properties of 2-(6-methylpyridin-2-yl)oxazolo[5,4-f][1,10]phenanthroline on mild steel. <i>Research on Chemical Intermediates</i> , 2013, 39, 1927-1948.	2.7	97
12	Theoretical and experimental studies on the corrosion inhibition potentials of some purines for aluminum in 0.1M HCl. <i>Journal of Advanced Research</i> , 2015, 6, 203-217.	9.5	97
13	Fabrication of FDTS-modified PDMS-ZnO nanocomposite hydrophobic coating with anti-fouling capability for corrosion protection of Q235 steel. <i>Journal of Colloid and Interface Science</i> , 2016, 484, 220-228.	9.4	96
14	Corrosion Inhibitive Effect and Adsorption Behaviour of <i>Hibiscus Sabdariffa</i> Extract on Mild Steel in Acidic Media. <i>Portugaliae Electrochimica Acta</i> , 2007, 26, 303-314.	1.1	89
15	Corrosion Inhibition of Q235 Mild Steel in 0.5 M H ₂ SO ₄ Solution by Phytic Acid and Synergistic Iodide Additives. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 7670-7679.	3.7	86
16	Natural products for materials protection: Corrosion protection of aluminium in hydrochloric acid by <i>Kola nitida</i> extract. <i>Journal of Molecular Liquids</i> , 2016, 219, 417-424.	4.9	85
17	Nanostructured superhydrophobic polysiloxane coating for high barrier and anticorrosion applications in marine environment. <i>Journal of Colloid and Interface Science</i> , 2018, 512, 674-685.	9.4	83
18	Influence of Iron Microstructure on Corrosion Inhibitor Performance in Acidic Media. <i>Journal of Physical Chemistry C</i> , 2009, 113, 8420-8429.	3.1	73

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19	Pyrimidine-2-thione derivatives as corrosion inhibitors for mild steel in acidic environments. RSC Advances, 2015, 5, 11145-11162.	3.6	70
20	Ascorbic acid as corrosion inhibitor for Q235 mild steel in acidic environments. Journal of Industrial and Engineering Chemistry, 2015, 26, 182-192.	5.8	62
21	BIOMASS EXTRACTS FOR MATERIALS PROTECTION: CORROSION INHIBITION OF MILD STEEL IN ACIDIC MEDIA BY Terminalia chebula EXTRACTS. Chemical Engineering Communications, 2014, 201, 790-803.	2.6	60
22	INHIBITION OF MILD STEEL CORROSION IN SULFURIC ACID MEDIUM BY HYDROXYETHYL CELLULOSE. Chemical Engineering Communications, 2015, 202, 112-122.	2.6	60
23	Experimental and theoretical assessment of the inhibiting action of Aspilia africana extract on corrosion aluminium alloy AA3003 in hydrochloric acid. Journal of Materials Science, 2012, 47, 2559-2572.	3.7	59
24	Corrosion Inhibition of Mild Steel in 1 M H ₂ SO ₄ by Polyvinyl Pyrrolidone and Synergistic Iodide Additives. Portugaliae Electrochimica Acta, 2007, 26, 533-546.	1.1	49
25	Dispersive adsorption of Xylopiia aethiopica constituents on carbon steel in acid-chloride medium: A combined experimental and theoretical approach. Journal of Molecular Liquids, 2018, 249, 371-388.	4.9	48
26	Adsorption and corrosion inhibiting effect of riboflavin on Q235 mild steel corrosion in acidic environments. Materials Chemistry and Physics, 2015, 156, 95-104.	4.0	47
27	Corrosion and corrosion inhibition characteristics of bulk nanocrystalline ingot iron in sulphuric acid. Journal of Solid State Electrochemistry, 2008, 12, 721-728.	2.5	40
28	Broad spectrum corrosion inhibition: corrosion and microbial (SRB) growth inhibiting effects of Piper guineense extract. Journal of Materials Science, 2012, 47, 3592-3601.	3.7	39
29	Corrosion Inhibiting Effect of Aframomum melegueta Extracts and Adsorption Characteristics of the Active Constituents on Mild Steel in Acidic Media. Journal of Dispersion Science and Technology, 2013, 34, 516-527.	2.4	38
30	Effect of perfluorodecyltrichlorosilane on the surface properties and anti-corrosion behavior of poly(dimethylsiloxane)-ZnO coatings. Applied Surface Science, 2018, 433, 1113-1127.	6.1	37
31	Synergetic effect of graphene and Co(OH) ₂ as cocatalysts of TiO ₂ nanotubes for enhanced photogenerated cathodic protection. Journal of Materials Science and Technology, 2020, 37, 55-63.	10.7	36
32	Hydroxypropyl methylcellulose as a polymeric corrosion inhibitor for aluminium. Pigment and Resin Technology, 2014, 43, 151-158.	0.9	35
33	Characterization, electrochemical and theoretical study of the anticorrosion properties of Moringa oleifera extract. Journal of Molecular Liquids, 2017, 237, 247-256.	4.9	35
34	Characterization and Experimental and Computational Assessment of Kola nitida Extract for Corrosion Inhibiting Efficacy. Industrial & Engineering Chemistry Research, 2014, 53, 5886-5894.	3.7	32
35	Effect of hydrostatic pressure on the galvanic corrosion of 90/10 Cu-Ni alloy coupled to Ti6Al4V alloy. Corrosion Science, 2020, 163, 108242.	6.6	32
36	Influence of Temperature on Corrosion Behavior of 2A02 Al Alloy in Marine Atmospheric Environments. Materials, 2018, 11, 235.	2.9	31

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37	Effect of streaming water vapor on the corrosion behavior of Ti60 alloy under a solid NaCl deposit in water vapor at 600°C. <i>Corrosion Science</i> , 2019, 160, 108177.	6.6	30
38	Electrochemical polymerization of polyaniline-reduced graphene oxide composite coating on 5083 Al alloy: Role of reduced graphene oxide. <i>Electrochemistry Communications</i> , 2019, 98, 110-114.	4.7	30
39	Enhanced corrosion resistance by engineering crystallography on metals. <i>Nature Communications</i> , 2022, 13, 726.	12.8	28
40	Evaluation of anticorrosion properties of <i>Chrysophyllum albidum</i> leaves extract for mild steel protection in acidic media. <i>International Journal of Industrial Chemistry</i> , 2016, 7, 81-92.	3.1	27
41	INHIBITING EFFECT OF CRYSTAL VIOLET DYE ON ALUMINUM CORROSION IN ACIDIC AND ALKALINE MEDIA. <i>Chemical Engineering Communications</i> , 2008, 196, 591-601.	2.6	23
42	Biosorption of Cd(II) From Aqueous Solution by Cocoa Pod Husk Biomass: Equilibrium, Kinetic, and Thermodynamic Studies. <i>Separation Science and Technology</i> , 2012, 47, 753-761.	2.5	22
43	Application of aqueous extracts of coffee senna for control of mild steel corrosion in acidic environments. <i>International Journal of Industrial Chemistry</i> , 2012, 3, 13.	3.1	22
44	Oxidative degradation of Bisphenol A in aqueous solution using cobalt ion-activated peroxymonosulfate. <i>Journal of Molecular Liquids</i> , 2020, 313, 113569.	4.9	22
45	Effect of ascorbic acid on mild steel dissolution in sulphuric acid solution investigated by electrochemical polarization and surface probe techniques. <i>Journal of Applied Electrochemistry</i> , 2007, 37, 1183-1190.	2.9	21
46	CORROSION INHIBITION AND ADSORPTION BEHAVIOR OF MALACHITE GREEN DYE ON ALUMINUM CORROSION. <i>Chemical Engineering Communications</i> , 2010, 198, 46-60.	2.6	21
47	Eco-Friendly Corrosion Inhibition of Pipeline Steel Using <i>Brassica oleracea</i> . <i>International Journal of Corrosion</i> , 2015, 2015, 1-9.	1.1	19
48	<i>Nicotiana tabacum</i> leaf extract protects aluminium alloy AA3003 from acid attack. <i>Arabian Journal of Chemistry</i> , 2019, 12, 4466-4478.	4.9	19
49	Ni Corrosion Product Layer During Immersion in a 3.5% NaCl Solution: Electrochemical and XPS Characterization. <i>Portugaliae Electrochimica Acta</i> , 2017, 35, 127-127.	1.1	19
50	Direct observation of atomic-scale origins of local dissolution in Al-Cu-Mg alloys. <i>Scientific Reports</i> , 2016, 6, 39525.	3.3	18
51	Electrochemical transformation of trichloroethylene in groundwater by Ni-containing cathodes. <i>Electrochimica Acta</i> , 2015, 181, 118-122.	5.2	17
52	Inhibitory Action of <i>Funtumia elastica</i> Extracts on the Corrosion of Q235 Mild Steel in Hydrochloric Acid Medium: Experimental and Theoretical Studies. <i>Journal of Dispersion Science and Technology</i> , 2015, 36, 1115-1125.	2.4	14
53	<i>Rothmannia longiflora</i> extract as corrosion inhibitor for mild steel in acidic media. <i>International Journal of Industrial Chemistry</i> , 2015, 6, 273-284.	3.1	14
54	Corrosion Inhibition and Adsorption of <i>Anthocleista Djalonesis</i> Leaf Extract on the Acid Corrosion of Mild Steel. <i>Portugaliae Electrochimica Acta</i> , 2012, 30, 189-202.	1.1	13

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55	Bonding Nature of Monomeric H ₂ O on Pd: Orbital Cooperation and Competition. Journal of Physical Chemistry C, 2009, 113, 1931-1938.	3.1	12
56	Electronic Structure of Monomeric Water Adsorption on Ni{111}: Beyond the General Model. Journal of Physical Chemistry C, 2008, 112, 8301-8303.	3.1	11
57	Characterizing the Electrochemical Corrosion Behaviour of a Ni-28wt.%Al Composite Coating in 3.5% NaCl Solution. Portugaliae Electrochimica Acta, 2015, 33, 69-83.	1.1	10
58	Inhibitive effect of methyl green dye on the corrosion of low carbon steel in acidic media. Pigment and Resin Technology, 2009, 38, 359-365.	0.9	9
59	<i>Baphia nitida</i> Leaves Extract as a Green Corrosion Inhibitor for the Corrosion of Mild Steel in Acidic Media. Advances in Chemistry, 2014, 2014, 1-10.	1.1	9
60	Indirect Formic Acid Fuel Cell Based on a Palladium or Palladium-Alloy Film Separating the Fuel Reaction and Electricity Generation. ChemElectroChem, 2021, 8, 378-385.	3.4	8
61	CoPi/Co(OH) ₂ Modified Ta ₃ N ₅ as New Photocatalyst for Photoelectrochemical Cathodic Protection of 304 Stainless Steel. Materials, 2019, 12, 134.	2.9	7
62	Ionic permeability of polymeric membranes: part 1—steady state transport of binary electrolytes through polyethylene films. Journal of Applied Electrochemistry, 2007, 37, 1047-1053.	2.9	6
63	Electrochemical corrosion behavior of a novel antibacterial stainless steel. Corrosion Science, 2009, 51, 1083-1086.	6.6	6
64	Microplastics: A Novel Method for Surface Water Sampling and Sample Extraction in Elechi Creek, Rivers State, Nigeria. Minerals, Metals and Materials Series, 2019, , 269-281.	0.4	6
65	Electrochemical corrosion behavior of novel Cu-containing antimicrobial austenitic and ferritic stainless steels in chloride media. Journal of Materials Science, 2010, 45, 5902-5909.	3.7	5
66	Orbital mechanism of upright CO activation on Fe(100). Surface and Interface Analysis, 2019, 51, 914-924.	1.8	3
67	Corrosion inhibition action of <i>Landolphia heudelotii</i> on mild steel in acidic media. Pigment and Resin Technology, 2020, 49, 387-392.	0.9	3
68	Corrosion of a Ni-Al Composite Coating in 2 M NaCl Solution. Portugaliae Electrochimica Acta, 2017, 35, 179-186.	1.1	3
69	The effect of microstructure and elemental content on corrosion and corrosion inhibition of mild steel in a 0.5 M H ₂ SO ₄ environment. RSC Advances, 2015, 5, 93907-93916.	3.6	2
70	Anisotropic Stark effect of carbon monoxide: emergent orbital cooperativity. Molecular Physics, 2020, 118, e1597198.	1.7	2
71	Coherent couplings between discrete sigma orbitals of carbon monoxide driven by external electric fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 205101.	1.5	1
72	Molecular Bonding of Predissociative CO on Fe(100): Molecular Orbital Perspective. Langmuir, 2019, 35, 16407-16415.	3.5	1

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73	Exploiting the Anticorrosion Effects of Vernonia Amygdalina Extract for Protection of Mild Steel in Acidic Environments. <i>Journal of Electrochemical Science and Technology</i> , 2016, 7, 251-262.	2.2	1
74	Effect of Surface Nanocrystallization on the Acid Corrosion and Corrosion Inhibition of Low Carbon Steel. <i>Advanced Materials Research</i> , 2008, 38, 248-256.	0.3	0