

# 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	Enhanced corrosion resistance by engineering crystallography on metals. Nature Communications, 2022, 13, 726.	12.8	28
2	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
3	Anisotropic Stark effect of carbon monoxide: emergent orbital cooperativity. Molecular Physics, 2020, 118, e1597198.	1.7	2
4	Synergetic effect of graphene and Co(OH) <sub>2</sub> as cocatalysts of TiO <sub>2</sub> nanotubes for enhanced photogenerated cathodic protection. Journal of Materials Science and Technology, 2020, 37, 55-63.	10.7	36
5	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
6	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
7	Oxidative degradation of Bisphenol A in aqueous solution using cobalt ion-activated peroxymonosulfate. Journal of Molecular Liquids, 2020, 313, 113569.	4.9	22
8	Effect of streaming water vapor on the corrosion behavior of Ti60 alloy under a solid NaCl deposit in water vapor at 600 °C. Corrosion Science, 2019, 160, 108177.	6.6	30
9	Orbital mechanism of upright CO activation on Fe(100). Surface and Interface Analysis, 2019, 51, 914-924.	1.8	3
10	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
11	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
12	Molecular Bonding of Predissociative CO on Fe(100): Molecular Orbital Perspective. Langmuir, 2019, 35, 16407-16415.	3.5	1
13	Electrochemical polymerization of polyaniline-reduced graphene oxide composite coating on 5083 Al alloy: Role of reduced graphene oxide. Electrochemistry Communications, 2019, 98, 110-114.	4.7	30
14	CoPi/Co(OH) <sub>2</sub> Modified Ta <sub>3</sub> N <sub>5</sub> as New Photocatalyst for Photoelectrochemical Cathodic Protection of 304 Stainless Steel. Materials, 2019, 12, 134.	2.9	7
15	Nicotiana tabacum leaf extract protects aluminium alloy AA3003 from acid attack. Arabian Journal of Chemistry, 2019, 12, 4466-4478.	4.9	19
16	Nanostructured superhydrophobic polysiloxane coating for high barrier and anticorrosion applications in marine environment. Journal of Colloid and Interface Science, 2018, 512, 674-685.	9.4	83
17	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
18	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

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19	Unmasking chloride attack on the passive film of metals. <i>Nature Communications</i> , 2018, 9, 2559.	12.8	255
20	Influence of Temperature on Corrosion Behavior of 2A02 Al Alloy in Marine Atmospheric Environments. <i>Materials</i> , 2018, 11, 235.	2.9	31
21	Characterization, electrochemical and theoretical study of the anticorrosion properties of <i>Moringa oleifera</i> extract. <i>Journal of Molecular Liquids</i> , 2017, 237, 247-256.	4.9	35
22	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
23	Corrosion of a Ni-Al Composite Coating in 2 M NaCl Solution. <i>Portugaliae Electrochimica Acta</i> , 2017, 35, 179-186.	1.1	3
24	Direct observation of atomic-scale origins of local dissolution in Al-Cu-Mg alloys. <i>Scientific Reports</i> , 2016, 6, 39525.	3.3	18
25	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
26	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
27	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
28	Exploiting the Anticorrosion Effects of <i>Vernonia Amygdalina</i> Extract for Protection of Mild Steel in Acidic Environments. <i>Journal of Electrochemical Science and Technology</i> , 2016, 7, 251-262.	2.2	1
29	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
30	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
31	Pyrimidine-2-thione derivatives as corrosion inhibitors for mild steel in acidic environments. <i>RSC Advances</i> , 2015, 5, 11145-11162.	3.6	70
32	Adsorption and corrosion inhibiting effect of riboflavin on Q235 mild steel corrosion in acidic environments. <i>Materials Chemistry and Physics</i> , 2015, 156, 95-104.	4.0	47
33	Electrochemical transformation of trichloroethylene in groundwater by Ni-containing cathodes. <i>Electrochimica Acta</i> , 2015, 181, 118-122.	5.2	17
34	<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
35	The effect of microstructure and elemental content on corrosion and corrosion inhibition of mild steel in a 0.5 M H <sub>2</sub> SO <sub>4</sub> environment. <i>RSC Advances</i> , 2015, 5, 93907-93916.	3.6	2
36	Ascorbic acid as corrosion inhibitor for Q235 mild steel in acidic environments. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 26, 182-192.	5.8	62

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37	Theoretical and experimental studies on the corrosion inhibition potentials of some purines for aluminum in 0.1M HCl. Journal of Advanced Research, 2015, 6, 203-217.	9.5	97
38	INHIBITION OF MILD STEEL CORROSION IN SULFURIC ACID MEDIUM BY HYDROXYETHYL CELLULOSE. Chemical Engineering Communications, 2015, 202, 112-122.	2.6	60
39	Characterizing the Electrochemical Corrosion Behaviour of a Ni <sup>2+</sup> 28wt.%Al Composite Coating in 3.5% NaCl Solution. Portugaliae Electrochimica Acta, 2015, 33, 69-83.	1.1	10
40	<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
41	Hydroxypropyl methylcellulose as a polymeric corrosion inhibitor for aluminium. Pigment and Resin Technology, 2014, 43, 151-158.	0.9	35
42	Characterization and Experimental and Computational Assessment of <i>Kola nitida</i> Extract for Corrosion Inhibiting Efficacy. Industrial & Engineering Chemistry Research, 2014, 53, 5886-5894.	3.7	32
43	Corrosion Inhibition of Q235 Mild Steel in 0.5 M H <sub>2</sub> SO <sub>4</sub> Solution by Phytic Acid and Synergistic Iodide Additives. Industrial & Engineering Chemistry Research, 2014, 53, 7670-7679.	3.7	86
44	BIOMASS EXTRACTS FOR MATERIALS PROTECTION: CORROSION INHIBITION OF MILD STEEL IN ACIDIC MEDIA BY <i>Terminalia chebula</i> EXTRACTS. Chemical Engineering Communications, 2014, 201, 790-803.	2.6	60
45	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. Research on Chemical Intermediates, 2013, 39, 1927-1948.	2.7	97
46	Natural Products for Materials Protection: Corrosion and Microbial Growth Inhibition Using <i>Capsicum frutescens</i> Biomass Extracts. ACS Sustainable Chemistry and Engineering, 2013, 1, 214-225.	6.7	105
47	Corrosion Inhibiting Effect of <i>Aframomum melegueta</i> 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
48	Corrosion Inhibition and Adsorption Behavior of <i>Punica granatum</i> Extract on Mild Steel in Acidic Environments: Experimental and Theoretical Studies. Industrial & Engineering Chemistry Research, 2012, 51, 668-677.	3.7	149
49	Natural Products for Materials Protection: Mechanism of Corrosion Inhibition of Mild Steel by Acid Extracts of <i>Piper guineense</i> . Journal of Physical Chemistry C, 2012, 116, 13603-13615.	3.1	159
50	Biosorption of Cd(II) From Aqueous Solution by Cocoa Pod Husk Biomass: Equilibrium, Kinetic, and Thermodynamic Studies. Separation Science and Technology, 2012, 47, 753-761.	2.5	22
51	Application of aqueous extracts of coffee senna for control of mild steel corrosion in acidic environments. International Journal of Industrial Chemistry, 2012, 3, 13.	3.1	22
52	Experimental and theoretical assessment of the inhibiting action of <i>Aspilia africana</i> extract on corrosion aluminium alloy AA3003 in hydrochloric acid. Journal of Materials Science, 2012, 47, 2559-2572.	3.7	59
53	Broad spectrum corrosion inhibition: corrosion and microbial (SRB) growth inhibiting effects of <i>Piper guineense</i> extract. Journal of Materials Science, 2012, 47, 3592-3601.	3.7	39
54	Corrosion Inhibition and Adsorption of <i>Anthocleista Djalonesis</i> Leaf Extract on the Acid Corrosion of Mild Steel. Portugaliae Electrochimica Acta, 2012, 30, 189-202.	1.1	13

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55	Understanding corrosion inhibition mechanismsâ€™ experimental and theoretical approach. RSC Advances, 2011, 1, 866.	3.6	104
56	The effect of Cu addition on the electrochemical corrosion and passivation behavior of stainless steels. Electrochimica Acta, 2010, 55, 5028-5035.	5.2	150
57	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
58	Adsorption and corrosion-inhibiting effect of Dacryodis edulis extract on low-carbon-steel corrosion in acidic media. Journal of Colloid and Interface Science, 2010, 349, 283-292.	9.4	203
59	CORROSION INHIBITION AND ADSORPTION BEHAVIOR OF MALACHITE GREEN DYE ON ALUMINUM CORROSION. Chemical Engineering Communications, 2010, 198, 46-60.	2.6	21
60	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
61	Bonding Nature of Monomeric H <sub>2</sub> O on Pd: Orbital Cooperation and Competition. Journal of Physical Chemistry C, 2009, 113, 1931-1938.	3.1	12
62	Electrochemical corrosion behavior of a novel antibacterial stainless steel. Corrosion Science, 2009, 51, 1083-1086.	6.6	6
63	Influence of Iron Microstructure on Corrosion Inhibitor Performance in Acidic Media. Journal of Physical Chemistry C, 2009, 113, 8420-8429.	3.1	73
64	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
65	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
66	Evaluation of the inhibitive effect of some plant extracts on the acid corrosion of mild steel. Corrosion Science, 2008, 50, 2993-2998.	6.6	316
67	Effect of Surface Nanocrystallization on the Acid Corrosion and Corrosion Inhibition of Low Carbon Steel. Advanced Materials Research, 2008, 38, 248-256.	0.3	0
68	INHIBITING EFFECT OF CRYSTAL VIOLET DYE ON ALUMINUM CORROSION IN ACIDIC AND ALKALINE MEDIA. Chemical Engineering Communications, 2008, 196, 591-601.	2.6	23
69	Corrosion inhibition and adsorption behavior of methionine on mild steel in sulfuric acid and synergistic effect of iodide ion. Journal of Colloid and Interface Science, 2007, 310, 90-98.	9.4	402
70	Ionic permeability of polymeric membranes: part 1â€™ steady state transport of binary electrolytes through polyethylene films. Journal of Applied Electrochemistry, 2007, 37, 1047-1053.	2.9	6
71	Effect of ascorbic acid on mild steel dissolution in sulphuric acid solution investigated by electrochemical polarization and surface probe techniques. Journal of Applied Electrochemistry, 2007, 37, 1183-1190.	2.9	21
72	Corrosion Inhibitive Effect and Adsorption Behaviour of Hibiscus Sabdariffa Extract on Mild Steel in Acidic Media. Portugaliae Electrochimica Acta, 2007, 26, 303-314.	1.1	89

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73	Corrosion Inhibition of Mild Steel in 1 M H <sub>2</sub> SO <sub>4</sub> by Polyvinyl Pyrrolidone and Synergistic Iodide Additives. <i>Portugaliae Electrochimica Acta</i> , 2007, 26, 533-546.	1.1	49
74	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