# Ime B Obot

## List of Publications by Citations



| | | | |
|---|---|---|---|
| 203 papers | 11,197 citations | 58 h-index | 98 g-index |
| 208 ext. papers | 13,113 ext. citations | 4.6 avg, IF | 7.21 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 203 | Density functional theory (DFT) as a powerful tool for designing new organic corrosion inhibitors. Part 1: An overview. *Corrosion Science*, **2015**, 99, 1-30 | 6.8 | 502 |
| 202 | Adsorption properties and inhibition of mild steel corrosion in sulphuric acid solution by ketoconazole: Experimental and theoretical investigation. *Corrosion Science*, **2010**, 52, 198-204 | 6.8 | 327 |
| 201 | Adsorption Behavior of Glucosamine-Based, Pyrimidine-Fused Heterocycles as Green Corrosion Inhibitors for Mild Steel: Experimental and Theoretical Studies. *Journal of Physical Chemistry C*, **2016**, 120, 11598-11611 | 3.8 | 313 |
| 200 | Some Quinoxalin-6-yl Derivatives as Corrosion Inhibitors for Mild Steel in Hydrochloric Acid: Experimental and Theoretical Studies. *Journal of Physical Chemistry C*, **2015**, 119, 16004-16019 | 3.8 | 301 |
| 199 | Theoretical evaluation of corrosion inhibition performance of some pyrazine derivatives. *Corrosion Science*, **2014**, 83, 359-366 | 6.8 | 226 |
| 198 | Theoretical study of benzimidazole and its derivatives and their potential activity as corrosion inhibitors. *Corrosion Science*, **2010**, 52, 657-660 | 6.8 | 218 |
| 197 | Electrochemical, Theoretical, and Surface Morphological Studies of Corrosion Inhibition Effect of Green Naphthyridine Derivatives on Mild Steel in Hydrochloric Acid. *Journal of Physical Chemistry C*, **2016**, 120, 3408-3419 | 3.8 | 214 |
| 196 | Antifungal drugs as corrosion inhibitors for aluminium in 0.1M HCl. *Corrosion Science*, **2009**, 51, 1868-1875 | 6.8 | 209 |
| 195 | Theoretical insight into an empirical rule about organic corrosion inhibitors containing nitrogen, oxygen, and sulfur atoms. *Applied Surface Science*, **2017**, 406, 301-306 | 6.7 | 206 |
| 194 | The synergistic inhibitive effect and some quantum chemical parameters of 2,3-diaminonaphthalene and iodide ions on the hydrochloric acid corrosion of aluminium. *Corrosion Science*, **2009**, 51, 276-282 | 6.8 | 181 |
| 193 | Toward understanding the anticorrosive mechanism of some thiourea derivatives for carbon steel corrosion: A combined DFT and molecular dynamics investigation. *Journal of Colloid and Interface Science*, **2017**, 506, 478-485 | 9.3 | 177 |
| 192 | Experimental, quantum chemical and Monte Carlo simulation studies on the corrosion inhibition of some alkyl imidazolium ionic liquids containing tetrafluoroborate anion on mild steel in acidic medium. *Journal of Molecular Liquids*, **2015**, 211, 105-118 | 6 | 175 |
| 191 | Inhibition of mild steel corrosion in sulphuric acid using indigo dye and synergistic halide additives. *Materials Chemistry and Physics*, **2004**, 84, 363-368 | 4.4 | 166 |
| 190 | Performance evaluation of pectin as ecofriendly corrosion inhibitor for X60 pipeline steel in acid medium: experimental and theoretical approaches. *Carbohydrate Polymers*, **2015**, 124, 280-91 | 10.3 | 163 |
| 189 | Determination of corrosion inhibition effects of amino acids: Quantum chemical and molecular dynamic simulation study. *Journal of the Taiwan Institute of Chemical Engineers*, **2016**, 58, 528-535 | 5.3 | 153 |
| 188 | Anticorrosion Potential of 2-Mesityl-1H-imidazo[4,5-f][1,10]phenanthroline on Mild Steel in Sulfuric Acid Solution: Experimental and Theoretical Study. *Industrial & Engineering Chemistry Research*, **2011**, 50, 2098-2110 | 3.9 | 150 |
| 187 | Inhibitive properties, thermodynamic and quantum chemical studies of alloxazine on mild steel corrosion in H2SO4. *Corrosion Science*, **2011**, 53, 263-275 | 6.8 | 149 |

| | | | |
|---|---|---|---|
| 186 | Pyrimidine derivatives as novel acidizing corrosion inhibitors for N80 steel useful for petroleum industry: A combined experimental and theoretical approach. *Journal of Industrial and Engineering Chemistry*, **2017**, 49, 176-188 | 6.3 | 145 |
| 185 | Gum arabic as a potential corrosion inhibitor for aluminium in alkaline medium and its adsorption characteristics. *Anti-Corrosion Methods and Materials*, **2006**, 53, 277-282 | 0.8 | 138 |
| 184 | 5-(Phenylthio)-3H-pyrrole-4-carbonitriles as effective corrosion inhibitors for mild steel in 1 M HCl: Experimental and theoretical investigation. *Journal of Molecular Liquids*, **2015**, 212, 209-218 | 6 | 134 |
| 183 | Metronidazole as environmentally safe corrosion inhibitor for mild steel in 0.5 M HCl: Experimental and theoretical investigation. *Journal of Environmental Chemical Engineering*, **2013**, 1, 431-439 | 6.8 | 131 |
| 182 | Theoretical prediction and electrochemical evaluation of vinylimidazole and allylimidazole as corrosion inhibitors for mild steel in 1 M HCl. *Journal of Industrial and Engineering Chemistry*, **2015**, 21, 1328-1339 | 6.3 | 130 |
| 181 | Anti-corrosive properties of xanthone on mild steel corrosion in sulphuric acid: Experimental and theoretical investigations. *Current Applied Physics*, **2011**, 11, 382-392 | 2.6 | 125 |
| 180 | Experimental, quantum chemical and Monte Carlo simulation studies of 3,5-disubstituted-4-amino-1,2,4-triazoles as corrosion inhibitors on mild steel in acidic medium. *Journal of Molecular Liquids*, **2016**, 218, 281-293 | 6 | 124 |
| 179 | Fluconazole as an inhibitor for aluminium corrosion in 0.1M HCl. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2008**, 330, 207-212 | 5.1 | 121 |
| 178 | 2,4-Diamino-5-(phenylthio)-5H-chromeno [2,3-b] pyridine-3-carbonitriles as green and effective corrosion inhibitors: gravimetric, electrochemical, surface morphology and theoretical studies. *RSC Advances*, **2016**, 6, 53933-53948 | 3.7 | 116 |
| 177 | Natural Products for Material Protection: Inhibition of Mild Steel Corrosion by Date Palm Seed Extracts in Acidic Media. *Industrial & Engineering Chemistry Research*, **2013**, 52, 14855-14865 | 3.9 | 112 |
| 176 | Quantum chemical investigation and statistical analysis of the relationship between corrosion inhibition efficiency and molecular structure of xanthene and its derivatives on mild steel in sulphuric acid. *Journal of Molecular Structure*, **2011**, 1002, 86-96 | 3.4 | 111 |
| 175 | Quantum chemical and molecular dynamic simulation studies for the prediction of inhibition efficiencies of some piperidine derivatives on the corrosion of iron. *Journal of the Taiwan Institute of Chemical Engineers*, **2016**, 65, 522-529 | 5.3 | 108 |
| 174 | 5-Arylpyrimido-[4,5-b]quinoline-diones as new and sustainable corrosion inhibitors for mild steel in 1 M HCl: a combined experimental and theoretical approach. *RSC Advances*, **2016**, 6, 15639-15654 | 3.7 | 108 |
| 173 | Choline based ionic liquids as sustainable corrosion inhibitors on mild steel surface in acidic medium: Gravimetric, electrochemical, surface morphology, DFT and Monte Carlo simulation studies. *Applied Surface Science*, **2018**, 457, 134-149 | 6.7 | 107 |
| 172 | A critical review on the recent studies on plant biomaterials as corrosion inhibitors for industrial metals. *Journal of Industrial and Engineering Chemistry*, **2019**, 76, 91-115 | 6.3 | 102 |
| 171 | Acenaphtho [1,2-b] quinoxaline as a novel corrosion inhibitor for mild steel in 0.5 M H2SO4. *Corrosion Science*, **2010**, 52, 923-926 | 6.8 | 101 |
| 170 | The Inhibition of aluminium corrosion in hydrochloric acid solution by exudate gum from Raphia hookeri. *Desalination*, **2009**, 247, 561-572 | 10.3 | 101 |
| 169 | Adsorption and corrosion inhibition properties of N-{n-[1-R-5-(quinoxalin-6-yl)-4,5-dihydropyrazol-3-yl]phenyl}methanesulfonamides on mild steel in 1 M HCl: experimental and theoretical studies. *RSC Advances*, **2016**, 6, 86782-86797 | 3.7 | 98 |

| | | | |
|---|---|---|---|
| 168 | 2,3-Diphenylbenzoquinoxaline: A new corrosion inhibitor for mild steel in sulphuric acid. *Corrosion Science*, **2010**, 52, 282-285 | 6.8 | 97 |
| 167 | Atomistic Simulation: A Unique and Powerful Computational Tool for Corrosion Inhibition Research. *Arabian Journal for Science and Engineering*, **2019**, 44, 1-32 | 2.5 | 96 |
| 166 | Inhibition of mild steel corrosion in H2SO4 solution by coconut coir dust extract obtained from different solvent systems and synergistic effect of iodide ions: Ethanol and acetone extracts. *Journal of Environmental Chemical Engineering*, **2014**, 2, 1048-1060 | 6.8 | 95 |
| 165 | 3-Amino alkylated indoles as corrosion inhibitors for mild steel in 1M HCl: Experimental and theoretical studies. *Journal of Molecular Liquids*, **2016**, 219, 647-660 | 6 | 95 |
| 164 | Pyranpyrazole derivatives as novel corrosion inhibitors for mild steel useful for industrial pickling process: Experimental and Quantum Chemical study. *Journal of Industrial and Engineering Chemistry* , **2017**, 52, 197-210 | 6.3 | 93 |
| 163 | Experimental and theoretical studies on some selected ionic liquids with different cations/anions as corrosion inhibitors for mild steel in acidic medium. *Journal of the Taiwan Institute of Chemical Engineers*, **2016**, 64, 252-268 | 5.3 | 93 |
| 162 | Density Functional Theory (DFT) modeling and Monte Carlo simulation assessment of inhibition performance of some carbohydrazide Schiff bases for steel corrosion. *Physica E: Low-Dimensional Systems and Nanostructures*, **2016**, 80, 82-90 | 3 | 89 |
| 161 | Exploration of Dextran for Application as Corrosion Inhibitor for Steel in Strong Acid Environment: Effect of Molecular Weight, Modification, and Temperature on Efficiency. *ACS Applied Materials & Interfaces*, **2018**, 10, 28112-28129 | 9.5 | 89 |
| 160 | Computational, Monte Carlo simulation and experimental studies of some arylazotriazoles (AATR) and their copper complexes in corrosion inhibition process. *Journal of Molecular Liquids*, **2018**, 260, 351-374 | 6 | 84 |
| 159 | Two new 8-hydroxyquinoline derivatives as an efficient corrosion inhibitors for mild steel in hydrochloric acid: Synthesis, electrochemical, surface morphological, UV□isible and theoretical studies. *Journal of Molecular Liquids*, **2019**, 276, 120-133 | 6 | 81 |
| 158 | Fabrication of nitrogen doped graphene oxide coatings: experimental and theoretical approach for surface protection. *RSC Advances*, **2015**, 5, 19264-19272 | 3.7 | 79 |
| 157 | Indeno-1-one [2,3-b]quinoxaline as an effective inhibitor for the corrosion of mild steel in 0.5M H2SO4 solution. *Materials Chemistry and Physics*, **2010**, 122, 325-328 | 4.4 | 78 |
| 156 | Isoxazolidine derivatives as corrosion inhibitors for low carbon steel in HCl solution: experimental, theoretical and effect of KI studies.. *RSC Advances*, **2018**, 8, 1764-1777 | 3.7 | 77 |
| 155 | Organic sensitizers for dye-sensitized solar cell (DSSC): Properties from computation, progress and future perspectives. *Journal of Molecular Structure*, **2016**, 1122, 80-87 | 3.4 | 77 |
| 154 | Green corrosion inhibitor for oilfield application I: Electrochemical assessment of 2-(2-pyridyl) benzimidazole for API X60 steel under sweet environment in NACE brine ID196. *Corrosion Science*, **2019**, 150, 183-193 | 6.8 | 75 |
| 153 | Raphia hookeri gum as a potential eco-friendly inhibitor for mild steel in sulfuric acid. *Journal of Materials Science*, **2009**, 44, 274-279 | 4.3 | 74 |
| 152 | Gelatin: A green corrosion inhibitor for carbon steel in oil well acidizing environment. *Journal of Molecular Liquids*, **2018**, 264, 515-525 | 6 | 74 |
| 151 | Spondias mombin L. as a green corrosion inhibitor for aluminium in sulphuric acid: Correlation between inhibitive effect and electronic properties of extracts major constituents using density functional theory. *Arabian Journal of Chemistry*, **2012**, 5, 361-373 | 5.9 | 71 |

| | | | |
|---|---|---|---|
| 150 | Sodium alginate: A promising biopolymer for corrosion protection of API X60 high strength carbon steel in saline medium. *Carbohydrate Polymers*, **2017**, 178, 200-208 | 10.3 | 69 |
| 149 | Mechanistic study of polyaspartic acid (PASP) as eco-friendly corrosion inhibitor on mild steel in 3% NaCl aerated solution. *Journal of Molecular Liquids*, **2018**, 250, 50-62 | 6 | 69 |
| 148 | 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 | 2.8 | 68 |
| 147 | Sodium dodecyl benzene sulfonate as a sustainable inhibitor for zinc corrosion in 26% NH4Cl solution. *Journal of Cleaner Production*, **2017**, 152, 17-25 | 10.3 | 66 |
| 146 | POLYVINYLPYROLLIDONE AND POLYACRYLAMIDE AS CORROSION INHIBITORS FOR MILD STEEL IN ACIDIC MEDIUM. *Surface Review and Letters*, **2008**, 15, 277-286 | 1.1 | 63 |
| 145 | Electrochemical frequency modulation (EFM) technique: Theory and recent practical applications in corrosion research. *Journal of Molecular Liquids*, **2018**, 249, 83-96 | 6 | 58 |
| 144 | An interesting and efficient green corrosion inhibitor for aluminium from extracts of Chlomolaena odorata L. in acidic solution. *Journal of Applied Electrochemistry*, **2010**, 40, 1977-1984 | 2.6 | 57 |
| 143 | Xanthione: A new and effective corrosion inhibitor for mild steel in sulphuric acid solution. *Arabian Journal of Chemistry*, **2013**, 6, 211-223 | 5.9 | 56 |
| 142 | Corrosion Inhibition of Aluminium Using Exudate Gum fromPachylobus edulisin the Presence of Halide Ions in HCl. *E-Journal of Chemistry*, **2008**, 5, 355-364 | | 55 |
| 141 | Pyrazine derivatives as green oil field corrosion inhibitors for steel. *Journal of Molecular Liquids*, **2019**, 277, 749-761 | 6 | 55 |
| 140 | Use of natural gums as green corrosion inhibitors: an overview. *International Journal of Industrial Chemistry*, **2015**, 6, 153-164 | 3.1 | 54 |
| 139 | Corrosion mitigation of J55 steel in 3.5% NaCl solution by a macrocyclic inhibitor. *Applied Surface Science*, **2015**, 356, 341-347 | 6.7 | 54 |
| 138 | Extraction, characterization and anti-corrosion activity of Mentha pulegium oil: Weight loss, electrochemical, thermodynamic and surface studies. *Journal of Molecular Liquids*, **2016**, 216, 724-731 | 6 | 54 |
| 137 | Enhanced corrosion inhibition effect of tannic acid in the presence of gallic acid at mild steel/HCl acid solution interface. *Journal of Industrial and Engineering Chemistry*, **2015**, 25, 105-111 | 6.3 | 54 |
| 136 | Molecular level insights for the corrosion inhibition effectiveness of three amine derivatives on the carbon steel surface in the adverse medium: A combined density functional theory and molecular dynamics simulation study. *Surfaces and Interfaces*, **2018**, 10, 65-73 | 4.1 | 54 |
| 135 | Theoretical modeling and molecular level insights into the corrosion inhibition activity of 2-amino-1,3,4-thiadiazole and its 5-alkyl derivatives. *Journal of Molecular Liquids*, **2016**, 221, 579-602 | 6 | 53 |
| 134 | Inhibition of mild steel corrosion in acidic medium using coconut coir dust extracted from water and methanol as solvents. *Journal of Industrial and Engineering Chemistry*, **2014**, 20, 3612-3622 | 6.3 | 53 |
| 133 | 8-Hydroxyquinoline as an alternative green and sustainable acidizing oilfield corrosion inhibitor. *Sustainable Materials and Technologies*, **2017**, 14, 1-10 | 5.3 | 52 |

| | | | |
|---|---|---|---|
| 132 | Hexamethylene-1,6-bis(N-D-glucopyranosylamine) as a novel corrosion inhibitor for oil and gas industry: electrochemical and computational analysis. *New Journal of Chemistry*, **2019**, 43, 7282-7293 | 3.6 | 52 |
| 131 | Porphyrins as Corrosion Inhibitors for N80 Steel in 3.5% NaCl Solution: Electrochemical, Quantum Chemical, QSAR and Monte Carlo Simulations Studies. *Molecules*, **2015**, 20, 15122-46 | 4.8 | 52 |
| 130 | Progress in the development of sour corrosion inhibitors: Past, present, and future perspectives. *Journal of Industrial and Engineering Chemistry*, **2019**, 79, 1-18 | 6.3 | 51 |
| 129 | Corrosion protection of carbon steel by two newly synthesized benzimidazol-2-ones substituted 8-hydroxyquinoline derivatives in 1 M HCl: Experimental and theoretical study. *Surfaces and Interfaces*, **2019**, 14, 222-237 | 4.1 | 51 |
| 128 | INHIBITORY EFFECT AND ADSORPTION CHARACTERISTICS OF 2,3-DIAMINONAPHTHALENE AT ALUMINUM/HYDROCHLORIC ACID INTERFACE: EXPERIMENTAL AND THEORETICAL STUDY. *Surface Review and Letters*, **2008**, 15, 903-910 | 1.1 | 49 |
| 127 | Exploration of natural polymers for use as green corrosion inhibitors for AZ31 magnesium alloy in saline environment. *Carbohydrate Polymers*, **2020**, 230, 115466 | 10.3 | 48 |
| 126 | Synthesized photo-cross-linking chalcones as novel corrosion inhibitors for mild steel in acidic medium: experimental, quantum chemical and Monte Carlo simulation studies. *RSC Advances*, **2015**, 5, 76675-76688 | 3.7 | 47 |
| 125 | Comparative studies on the corrosion inhibition efficacy of ethanolic extracts of date palm leaves and seeds on carbon steel corrosion in 15% HCl solution. *Journal of Adhesion Science and Technology*, **2018**, 32, 1934-1951 | 2 | 47 |
| 124 | Anti-corrosive properties of 4-amino-3,5-bis(disubstituted)-1,2,4-triazole derivatives on mild steel corrosion in 2 M H3PO4 solution: Experimental and theoretical studies. *Journal of Molecular Liquids*, **2016**, 216, 874-886 | 6 | 47 |
| 123 | Anticorrosion potential of some 5-amino-8-hydroxyquinolines derivatives on carbon steel in hydrochloric acid solution: Gravimetric, electrochemical, surface morphological, UV□isible, DFT and Monte Carlo simulations. *Journal of Molecular Liquids*, **2017**, 248, 1014-1027 | 6 | 46 |
| 122 | Promising bio-composites of polypyrrole and chitosan: Surface protective and in vitro biocompatibility performance on 316L SS implants. *Carbohydrate Polymers*, **2017**, 173, 121-130 | 10.3 | 46 |
| 121 | Ionic liquids derived from □amino acid ester salts as potent green corrosion inhibitors for mild steel in 1M HCl. *Journal of Molecular Liquids*, **2020**, 318, 113982 | 6 | 46 |
| 120 | ,RDialkylcystine Gemini and Monomeric -Alkyl Cysteine Surfactants as Corrosion Inhibitors on Mild Steel Corrosion in 1 M HCl Solution: A Comparative Study. *ACS Omega*, **2017**, 2, 5691-5707 | 3.9 | 45 |
| 119 | Theoretical evaluation of triazine derivatives as steel corrosion inhibitors: DFT and Monte Carlo simulation approaches. *Research on Chemical Intermediates*, **2016**, 42, 4963-4983 | 2.8 | 44 |
| 118 | Functionalized 2-hydrazinobenzothiazole with carbohydrates as a corrosion inhibitor: electrochemical, XPS, DFT and Monte Carlo simulation studies. *Materials Chemistry Frontiers*, **2019**, 3, 931-940 | 7.8 | 43 |
| 117 | Investigations on eco-friendly corrosion inhibitors for mild steel in acid environment: Electrochemical, DFT and Monte Carlo Simulation approach. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2020**, 599, 124881 | 5.1 | 42 |
| 116 | Multi-functional ceramic hybrid coatings on biodegradable AZ31 Mg implants: electrochemical, tribological and quantum chemical aspects for orthopaedic applications. *RSC Advances*, **2014**, 4, 24272 | 3.7 | 42 |
| 115 | Synergistic effect of iodide ion addition on the inhibition of mild steel corrosion in 1□M HCl by 3-amino-2-methylbenzylalcohol. *Materials Chemistry and Physics*, **2016**, 177, 266-275 | 4.4 | 42 |

| | | | |
|---|---|---|---|
| 114 | Carbohydrate compounds as green corrosion inhibitors: electrochemical, XPS, DFT and molecular dynamics simulation studies. *RSC Advances*, **2016**, 6, 110053-110069 | 3.7 | 39 |
| 113 | Surface protection of mild steel using benzimidazole derivatives: experimental and theoretical approach. *Journal of Adhesion Science and Technology*, **2015**, 29, 2130-2152 | 2 | 37 |
| 112 | Benzimidazole: Small planar molecule with diverse anti-corrosion potentials. *Journal of Molecular Liquids*, **2017**, 246, 66-90 | 6 | 37 |
| 111 | Coconut coir dust extract: a novel eco-friendly corrosion inhibitor for Al in HCl solutions. *Green Chemistry Letters and Reviews*, **2012**, 5, 303-313 | 4.7 | 37 |
| 110 | Potential of Azadirachta indica as a green corrosion inhibitor against mild steel, aluminum, and tin: a review. *Journal of Analytical Science and Technology*, **2015**, 6, | 3.4 | 36 |
| 109 | Effect of degree of hydrolysis of polyvinyl alcohol on the corrosion inhibition of steel: theoretical and experimental studies. *Journal of Adhesion Science and Technology*, **2015**, 29, 271-295 | 2 | 36 |
| 108 | Synergistic Effect of Nizoral and Iodide Ions on the Corrosion Inhibition of Mild Steel in Sulphuric Acid Solution. *Portugaliae Electrochimica Acta*, **2009**, 27, 539-553 | 2.4 | 35 |
| 107 | In-situ synthesis of hydrophobic SiO2-PMMA composite for surface protective coatings: Experimental and quantum chemical analysis. *Polymer*, **2015**, 77, 79-86 | 3.9 | 34 |
| 106 | Cyclodextrin-based functionalized graphene oxide as an effective corrosion inhibitor for carbon steel in acidic environment. *Progress in Organic Coatings*, **2019**, 128, 157-167 | 4.8 | 33 |
| 105 | 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. *Journal of King Saud University - Science*, **2020**, 32, 667-676 | 3.6 | 33 |
| 104 | Empirical and theoretical investigations on the corrosion inhibition characteristics of mild steel by three new Schiff base derivatives. *Journal of Adhesion Science and Technology*, **2019**, 33, 1139-1168 | 2 | 32 |
| 103 | Synthesis, characterization and corrosion inhibition efficiency of 2-(6-methylpyridin-2-yl)-1H-imidazo[4,5-f][1,10] phenanthroline on mild steel in sulphuric acid. *Arabian Journal of Chemistry*, **2014**, 7, 197-207 | 5.9 | 32 |
| 102 | Adsorption behavior and corrosion inhibitive potential of xanthene on mild steel/sulphuric acid interface. *Arabian Journal of Chemistry*, **2012**, 5, 121-133 | 5.9 | 32 |
| 101 | Eco-friendly Inhibitors from Naturally Occurring Exudate Gums for Aluminium Corrosion Inhibition in Acidic Medium. *Portugaliae Electrochimica Acta*, **2007**, 26, 267-282 | 2.4 | 32 |
| 100 | Ipomoea Involcrata as an Ecofriendly Inhibitor for Aluminium in Alkaline Medium. *Portugaliae Electrochimica Acta*, **2009**, 27, 517-524 | 2.4 | 32 |
| 99 | Anticorrosive property of heterocyclic based epoxy resins on carbon steel corrosion in acidic medium: Electrochemical, surface morphology, DFT and Monte Carlo simulation studies. *Journal of Molecular Liquids*, **2019**, 287, 110977 | 6 | 31 |
| 98 | Investigation on corrosion protection behavior and adsorption of carbohydrazide-pyrazole compounds on mild steel in 15% HCl solution: Electrochemical and computational approach. *Journal of Molecular Liquids*, **2020**, 314, 113513 | 6 | 31 |
| 97 | Experimental and Theoretical Studies of Red Apple Fruit Extract as Green Corrosion Inhibitor for Mild Steel in HCl Solution. *Journal of Dispersion Science and Technology*, **2015**, 36, 789-802 | 1.5 | 31 |

| | | | |
|---|---|---|---|
| 96 | Studies on the Inhibitive Effect of Exudate Gum from Dacroydes edulis on the Acid Corrosion of Aluminium. *Portugaliae Electrochimica Acta*, **2007**, 26, 199-209 | 2.4 | 31 |
| 95 | Synthesis and investigation of quinazoline derivatives based on 8-hydroxyquinoline as corrosion inhibitors for mild steel in acidic environment: experimental and theoretical studies. *Ionics*, **2019**, 25, 3473-3491 | 2.7 | 31 |
| 94 | Theoretical and experimental investigation of two alkyl carboxylates as corrosion inhibitors for steel in acidic medium. *Journal of Molecular Liquids*, **2019**, 279, 190-207 | 6 | 30 |
| 93 | Experimental and theoretical studies on inhibition of mild steel corrosion by some synthesized polyurethane tri-block co-polymers. *Scientific Reports*, **2016**, 6, 30937 | 4.9 | 30 |
| 92 | Anticorrosion studies of some hydantoin derivatives for mild steel in 0.5 M HCl solution: Experimental, quantum chemical, Monte Carlo simulations and QSAR studies. *Journal of Molecular Liquids*, **2018**, 252, 62-74 | 6 | 30 |
| 91 | A combined electrochemical and theoretical study of pyridine-based Schiff bases as novel corrosion inhibitors for mild steel in hydrochloric acid medium. *Journal of Chemical Sciences*, **2018**, 130, 1 | 1.8 | 29 |
| 90 | Alternative corrosion inhibitor formulation for carbon steel in CO2-saturated brine solution under high turbulent flow condition for use in oil and gas transportation pipelines. *Corrosion Science*, **2019** , 159, 108140 | 6.8 | 29 |
| 89 | ADSORPTION AND KINETIC STUDIES ON THE INHIBITION POTENTIAL OF FLUCONAZOLE FOR THE CORROSION OF Al IN HCl SOLUTION. *Chemical Engineering Communications*, **2011**, 198, 711-725 | 2.2 | 29 |
| 88 | Corrosion inhibitors for acid cleaning of desalination heat exchangers: Progress, challenges and future perspectives. *Journal of Molecular Liquids*, **2019**, 296, 111760 | 6 | 28 |
| 87 | Adsorption and corrosive inhibitive properties of Vigna unguiculata in alkaline and acidic media. *Pigment and Resin Technology*, **2008**, 37, 98-105 | 1 | 28 |
| 86 | Experimental and theoretical investigations of adsorption characteristics of itraconazole as green corrosion inhibitor at a mild steel/hydrochloric acid interface. *Research on Chemical Intermediates*, **2012**, 38, 1761-1779 | 2.8 | 27 |
| 85 | Corrosion inhibition of mild steel by Calotropis procera leaves extract in a CO2 saturated sodium chloride solution. *Journal of Adhesion Science and Technology*, **2016**, 30, 2523-2543 | 2 | 27 |
| 84 | Electrochemical kinetics, molecular dynamics, adsorption and anticorrosion behavior of melatonin biomolecule on steel surface in acidic medium. *Bioelectrochemistry*, **2019**, 129, 42-53 | 5.6 | 26 |
| 83 | A DFT study of pyrazine derivatives and their Fe complexes in corrosion inhibition process. *Journal of Molecular Structure*, **2015**, 1086, 64-72 | 3.4 | 26 |
| 82 | Theoretical Study of the Mechanism of Corrosion Inhibition of Carbon Steel in Acidic Solution by 2-aminobenzothaizole and 2- Mercatobenzothiazole. *International Journal of Electrochemical Science*, **2018**, 3535-3554 | 2.2 | 26 |
| 81 | Adsorption and corrosion inhibition characteristics of strawberry fruit extract at steel/acids interfaces: experimental and theoretical approaches. *Ionics*, **2015**, 21, 1171-1186 | 2.7 | 25 |
| 80 | Thioglycoluril derivative as a new and effective corrosion inhibitor for low carbon steel in a 1 M HCl medium: Experimental and theoretical investigation. *Journal of Molecular Structure*, **2021**, 1234, 130165 | 3.4 | 25 |
| 79 | Macrocyclic inhibitor for corrosion of N80 steel in 3.5% NaCl solution saturated with CO2. *Journal of Molecular Liquids*, **2016**, 219, 865-874 | 6 | 25 |

| | | | |
|---|---|---|---|
| 78 | Effect of substituent dependent molecular structure on anti-corrosive behavior of one-pot multicomponent synthesized pyrimido [2,1-B] benzothiazoles: Computer modelling supported experimental studies. *Journal of Molecular Liquids*, **2019**, 287, 110972 | 6 | 24 |
| 77 | Electrochemical noise (EN) technique: review of recent practical applications to corrosion electrochemistry research. *Journal of Adhesion Science and Technology*, **2019**, 33, 1453-1496 | 2 | 23 |
| 76 | Impact of selected ionic liquids on corrosion protection of mild steel in acidic medium: Experimental and computational studies. *Journal of Molecular Liquids*, **2020**, 314, 113609 | 6 | 23 |
| 75 | Green corrosion inhibitor for oilfield application II: The time□volution effect on the sweet corrosion of API X60 steel in synthetic brine and the inhibition performance of 2-(2-pyridyl) benzimidazole under turbulent hydrodynamics. *Corrosion Science*, **2020**, 168, 108589 | 6.8 | 23 |
| 74 | An electrochemical, in vitro bioactivity, and quantum chemical approach to nanostructured copolymer coatings for orthopedic applications. *Journal of Materials Science*, **2014**, 49, 4067-4080 | 4.3 | 23 |
| 73 | 3,5-Diaryl-4-amino-1,2,4-triazole derivatives as effective corrosion inhibitors for mild steel in hydrochloric acid solution: Correlation between anti-corrosion activity and chemical structure. *Protection of Metals and Physical Chemistry of Surfaces*, **2017**, 53, 548-559 | 0.9 | 23 |
| 72 | Synergistic Effect of Potassium Iodide with L-Tryptophane on the Corrosion Inhibition of Mild Steel: A Combined Electrochemical and Theoretical Study. *International Journal of Electrochemical Science*, **2017**, 166-177 | 2.2 | 22 |
| 71 | Highly efficient corrosion inhibitor for C1020 carbon steel during acid cleaning in multistage flash (MSF) desalination plant. *Desalination*, **2019**, 470, 114100 | 10.3 | 21 |
| 70 | Date palm (Phoenix dactylifera) leaf extract as an eco-friendly corrosion inhibitor for carbon steel in 1M hydrochloric acid solution. *Anti-Corrosion Methods and Materials*, **2015**, 62, 19-28 | 0.8 | 20 |
| 69 | Corrosion inhibition effect of a benzimidazole derivative on heat exchanger tubing materials during acid cleaning of multistage flash desalination plants. *Desalination*, **2020**, 479, 114283 | 10.3 | 20 |
| 68 | Studies of the anticorrosion property of a newly synthesized Green isoxazolidine for API 5L X60 steel in acid environment. *Journal of Materials Research and Technology*, **2019**, 8, 4399-4416 | 5.5 | 19 |
| 67 | A Study of Superficial Sediments and Aquifers in Parts of Uyo Local Government Area, Akwa Ibom State, Southern Nigeria, Using Electrical Sounding Method. *E-Journal of Chemistry*, **2010**, 7, 1018-1022 | | 19 |
| 66 | Mild steel green inhibition by Ficus carica leaves extract under practical field conditions. *Journal of Adhesion Science and Technology*, **2017**, 31, 2697-2718 | 2 | 18 |
| 65 | Newly synthesized pyrimidine compound as CO2 corrosion inhibitor for steel in highly aggressive simulated oilfield brine. *Journal of Adhesion Science and Technology*, **2019**, 33, 1226-1247 | 2 | 18 |
| 64 | High temperature sweet corrosion and inhibition in the oil and gas industry: Progress, challenges and future perspectives. *Journal of Petroleum Science and Engineering*, **2020**, 185, 106469 | 4.4 | 17 |
| 63 | Towards Understanding the Anticorrosive Mechanism of Novel Surfactant Based on Mentha pulegium Oil as Eco-friendly Bio-source of Mild Steel in Acid Medium: a Combined DFT and Molecular Dynamics Investigation. *Chemical Research in Chinese Universities*, **2019**, 35, 85-100 | 2.2 | 16 |
| 62 | Resistivity Study of Shallow Aquifers in theParts of Southern Ukanafun Local Government Area, Akwa Ibom State, Nigeria. *E-Journal of Chemistry*, **2010**, 7, 693-700 | | 16 |
| 61 | Production of Cellulosic Polymers from Agricultural Wastes. *E-Journal of Chemistry*, **2008**, 5, 81-85 | | 16 |

| | | | |
|---|---|---|---|
| 60 | Banana leaves water extracts as inhibitor for X70 steel corrosion in HCl medium. *Journal of Molecular Liquids*, **2021**, 327, 114828 | 6 | 16 |
| 59 | Mitigation of corrosion in petroleum oil well/tubing steel using pyrimidines as efficient corrosion inhibitor: Experimental and theoretical investigation. *Materials Today Communications*, **2021**, 26, 101862 | 2.5 | 16 |
| 58 | Use of Sapindus (reetha) as corrosion inhibitor of aluminium in acidic medium. *Materials Research Express*, **2018**, 5, 076510 | 1.7 | 15 |
| 57 | Pyrazines as Potential Corrosion Inhibitors for Industrial Metals and Alloys: A Review. *Journal of Bio- and Tribo-Corrosion*, **2018**, 4, 1 | 2.9 | 14 |
| 56 | Experimental and computational evaluation of illicium verum as a novel eco-friendly corrosion inhibitor for aluminium. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2018**, 69, 125-139 | 1.6 | 14 |
| 55 | Development of a green corrosion inhibitor for use in acid cleaning of MSF desalination plant. *Desalination*, **2020**, 495, 114675 | 10.3 | 14 |
| 54 | Public health options for improving cardiovascular health among older Americans. *American Journal of Public Health*, **2012**, 102, 1498-507 | 5.1 | 13 |
| 53 | Synergistic Inhibition Between Polyvinylpyrollidone and Iodide Ions on Corrosion of Aluminium in HCl~!2008-10-03~!2008-11-08~!2009-01-06~!. *The Open Corrosion Journal*, **2009**, 2, 1-7 | | 13 |
| 52 | Quantum Chemical Investigation of the Relationship Between Molecular Structure and Corrosion Inhibition Efficiency of Benzotriazole and its Alkyl-Derivatives on Iron. *Protection of Metals and Physical Chemistry of Surfaces*, **2017**, 53, 1139-1149 | 0.9 | 12 |
| 51 | Impact of Degree of Hydrophilicity of Pyridinium Bromide Derivatives on HCl Pickling of X-60 Mild Steel: Experimental and Theoretical Evaluations. *Coatings*, **2020**, 10, 185 | 2.9 | 12 |
| 50 | Recovery of Glycerol from Spent Soap LyeBy - Product of Soap Manufacture. *E-Journal of Chemistry*, **2008**, 5, 940-945 | | 11 |
| 49 | Top of the line corrosion: causes, mechanisms, and mitigation using corrosion inhibitors. *Arabian Journal of Chemistry*, **2021**, 14, 103116 | 5.9 | 11 |
| 48 | A novel method for the calculation of bond stretching force constants of diatomic molecules. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2016**, 154, 103-107 | 4.4 | 10 |
| 47 | Phytochemical and Antimicrobial Properties of Leaves ofAlchonea Cordifolia. *E-Journal of Chemistry* , **2010**, 7, 1071-1079 | | 10 |
| 46 | Inhibition of Aluminium Corrosion in Hydrochloric Acid Using Nizoral and the Effect of Iodide Ion Addition. *E-Journal of Chemistry*, **2010**, 7, 837-843 | | 10 |
| 45 | Evaluation of the Effect of Azo Group on the Biological Activity of 1-(4-Methylphenylazo)-2-naphthol. *E-Journal of Chemistry*, **2008**, 5, 431-434 | | 10 |
| 44 | Corrosion inhibition of eco-friendly nitrogen-doped carbon dots for carbon steel in acidic media: Performance and mechanism investigation. *Journal of Molecular Liquids*, **2021**, 342, 117583 | 6 | 10 |
| 43 | Humic Acid from Livestock Dung: Ecofriendly Corrosion Inhibitor for 3SR Aluminum Alloy in Alkaline Medium. *Chemical Engineering Communications*, **2015**, 202, 206-216 | 2.2 | 9 |

| | | | |
|---|---|---|---|
| 42 | Synergistic inhibition between 1-octadecanethiol and iodide ions on X60 pipeline steel for corrosion protection. *Journal of Adhesion Science and Technology*, **2014**, 28, 2054-2068 | 2 | 9 |
| 41 | Effluents and Solid Waste Analysis in a Petrochemical Company- A Case Study of Eleme Petrochemical Company Ltd, Port Harcourt, Nigeria. *E-Journal of Chemistry*, **2008**, 5, 74-80 | | 9 |
| 40 | Anti-Nutritional Factors and Potassium Bromate Content in Bread and Flour Samples in Uyo Metropolis, Nigeria. *E-Journal of Chemistry*, **2008**, 5, 736-741 | | 9 |
| 39 | Inhibition Performances of Nicotinamide Against Aluminum Corrosion in an Acidic Medium. *Portugaliae Electrochimica Acta*, **2020**, 38, 107-123 | 2.4 | 9 |
| 38 | Chromeno-carbonitriles as corrosion inhibitors for mild steel in acidic solution: electrochemical, surface and computational studies.. *RSC Advances*, **2021**, 11, 2462-2475 | 3.7 | 9 |
| 37 | Promising Hard Carbon Coatings on Cu Substrates: Corrosion and Tribological Performance with Theoretical Aspect. *Journal of Materials Engineering and Performance*, **2018**, 27, 2306-2316 | 1.6 | 7 |
| 36 | Effective acid corrosion inhibitors for X60 steel under turbulent flow condition based on benzimidazoles: electrochemical, theoretical, SEM, ATR-IR and XPS investigations. *European Physical Journal Plus*, **2020**, 135, 1 | 3.1 | 6 |
| 35 | Preparation of Silver/Chitosan Nanofluids Using Selected Plant Extracts: Characterization and Antimicrobial Studies Against Gram-Positive and Gram-Negative Bacteria. *Materials*, **2020**, 13, | 3.5 | 6 |
| 34 | Mechanistic evaluation of adsorption and corrosion inhibition capabilities of novel indoline compounds for oil well/tubing steel in 15% HCl. *Chemical Engineering Journal*, **2021**, 133481 | 14.7 | 6 |
| 33 | Effect of Intensifier Additives on the Performance of Butanolic Extract of Date Palm Leaves against the Corrosion of API 5L X60 Carbon Steel in 15 wt.% HCl Solution. *Sustainability*, **2021**, 13, 5569 | 3.6 | 6 |
| 32 | Effective Protection for Copper Corrosion by Two Thiazole Derivatives in Neutral Chloride Media: Experimental and Computational Study. *International Journal of Electrochemical Science*, **2016**, 3147-3163 | 2.2 | 6 |
| 31 | Anticorrosive efficacy and adsorptive study of guar gum with mild steel in acidic medium. *Journal of Analytical Science and Technology*, **2016**, 7, | 3.4 | 6 |
| 30 | DFT study of the interactions between thiophene-based corrosion inhibitors and an Fe cluster. *Journal of Molecular Modeling*, **2017**, 23, 260 | 2 | 5 |
| 29 | Date palm leaves extract as a green and sustainable corrosion inhibitor for low carbon steel in 15 wt.% HCl solution: the role of extraction solvent on inhibition effect. *Environmental Science and Pollution Research*, **2021**, 28, 40879-40894 | 5.1 | 5 |
| 28 | Exploring the effect of mono- and di-fluorinated triphenylamine-based molecules as electron donors for dye-sensitised solar cells. *Molecular Simulation*, **2020**, 46, 41-53 | 2 | 5 |
| 27 | Influence of hydrodynamic condition on 1,3,5-tris(4-methoxyphenyl)-1,3,5-triazinane as a novel corrosion inhibitor formulation for oil and gas industry. *Corrosion Engineering Science and Technology*, **2021**, 56, 154-161 | 1.7 | 5 |
| 26 | Experimental and theoretical evaluation of some synthesized imidazolidine derivatives as novel corrosion inhibitors for X60 steel in 1 M HCl solution. *Journal of Adhesion Science and Technology*, **2018**, 32, 2569-2589 | 2 | 5 |
| 25 | Molecular Simulation of Cement-based Materials and Their Properties: A Review. *Engineering*, **2021**, | 9.7 | 5 |

| | | | |
|---|---|---|---|
| 24 | The inhibition of type 304LSS general corrosion in hydrochloric acid by the New Fuchsin compound. *Corrosion Science*, **2021**, 178, 109072 | 6.8 | 4 |
| 23 | Potential of dibenzo-18-crown-6-ether derivatives as a corrosion inhibitor on mild steel in HCl medium: electrochemical and computational approaches. *New Journal of Chemistry*, **2021**, 45, 6826-6842 | 3.6 | 4 |
| 22 | Corrosion challenges in petroleum refinery operations: Sources, mechanisms, mitigation, and future outlook. *Journal of Saudi Chemical Society*, **2021**, 25, 101370 | 4.3 | 3 |
| 21 | Under-Deposit Corrosion on Steel Pipeline Surfaces: Mechanism, Mitigation and Current Challenges. *Journal of Bio- and Tribo-Corrosion*, **2021**, 7, 1 | 2.9 | 3 |
| 20 | Corrosion challenges and prevention in Ethyl Acetate (EA) production and related processes An overview. *Engineering Failure Analysis*, **2021**, 127, 105511 | 3.2 | 3 |
| 19 | Inhibitive effect of different solvent fractions of bamboo shoots extract on the corrosion of mild steel in 0.5 mol/L H2SO4 solution. *Journal of Molecular Structure*, **2021**, 1243, 130852 | 3.4 | 3 |
| 18 | Variational Principle Techniques and the Propertiesof a Cut-off and Anharmonic Wave Function. *E-Journal of Chemistry*, **2009**, 6, 113-119 | | 2 |
| 17 | Experimental, DFT and QSAR models for the discovery of new pyrazines corrosion inhibitors for steel in oilfield acidizing environment. *International Journal of Electrochemical Science*, **2020**, 9066-9080 | 2.2 | 2 |
| 16 | Mechanistic Study of Polyepoxy Succinic Acid (PESA) as Green Corrosion Inhibitor on Carbon Steel in Aerated NaCl Solution. *Materials Today Communications*, **2021**, 29, 102848 | 2.5 | 2 |
| 15 | The role of some triazoles on the corrosion inhibition of C1020 steel and copper in a desalination descaling solution. *Desalination*, **2022**, 527, 115551 | 10.3 | 1 |
| 14 | Conceptual Density Functional Theory and its Application to Corrosion Inhibition Studies **2018**, 195-216 | | 1 |
| 13 | 1,12-Dodecyldiyl-bis(dimethylalkylammonium bromide) compounds anticorrosion property on C1018/15% HCl solution interface: Experimental, molecular dynamics simulation, and DFT studies. *Journal of Molecular Liquids*, **2022**, 346, 118332 | 6 | 1 |
| 12 | (E)-2-amino-7-hydroxy-4-styrylquinoline-3-carbonitrile as a novel inhibitor for oil and gas industry: influence of temperature and synergistic agent. *Journal of Adhesion Science and Technology*,1-25 | 2 | 1 |
| 11 | Insight into the nature of the ionic interactions between some aldehydes and Ni-W alloy: A theoretical study. *Materials Today Communications*, **2020**, 22, 100693 | 2.5 | 1 |
| 10 | Atomistic simulation of polymer-cement interactions: Progress and research challenges. *Construction and Building Materials*, **2022**, 327, 126881 | 6.7 | 1 |
| 9 | Elucidation of corrosion inhibition property of compounds isolated from Butanolic Date Palm Leaves extract for low carbon steel in 15% HCl solution: Experimental and theoretical approaches. *Journal of Molecular Liquids*, **2022**, 356, 119002 | 6 | 1 |
| 8 | Modified-polyaspartic acid derivatives as effective corrosion inhibitor for C1018 steel in 3.5% NaCl saturated CO2 brine solution. *Journal of the Taiwan Institute of Chemical Engineers*, **2022**, 135, 104393 | 5.3 | 1 |
| 7 | A novel trans-esterified water soluble hyperbranched polymer for surface protection of X60 steel: Experimental and theoretical approach. *Journal of Molecular Liquids*, **2021**, 118091 | 6 | 0 |

| | | | |
|---|---|---|---|
| 6 | Theoretical, electrochemical and computational inspection for anti-corrosion activity of triazepine derivatives on mild steel in HCl medium. *Journal of Molecular Liquids*, **2021**, 348, 118075 | 6 | 0 |
| 5 | Density functional theory and molecular dynamics simulation of the corrosive particle diffusion in pyrimidine and its derivatives films. *Computational Materials Science*, **2022**, 210, 111428 | 3.2 | 0 |
| 4 | Effect of Molecular Structure of two Fluorescein Molecules on the Corrosion Inhibition of Mild Steel in 1 M HCl solution. *Journal of Molecular Liquids*, **2022**, 119311 | 6 | 0 |
| 3 | Molecular Modeling for Corrosion Inhibitor Design **2022**, 259-278 | | |
| 2 | Chemical Equalization Principles and Their New Applications **2018**, 89-144 | | |
| 1 | Corrosion Inhibitors: Computational Design of Steel in Aqueous Media **2016**, 887-898 | | |