

Ali Davoodi

List of Publications by Year in descending order

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85
papers

3,054
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136885

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times ranked

2356
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning surface wettability of aluminum surface and its correlation with short and long term corrosion resistance in saline solutions. <i>Surface and Coatings Technology</i> , 2022, 429, 127950.	2.2	15
2	A new method to determine the synergistic effects of area ratio and microstructure on the galvanic corrosion of LAS A508/309 L/308 L SS dissimilar metals weld. <i>Journal of Materials Science and Technology</i> , 2021, 78, 38-50.	5.6	30
3	Effect of Fluid Flow on the Corrosion Performance of as-Cast and Heat-Treated Nickel Aluminum Bronze Alloy (UNS C95800) in Saline Solution. <i>Corrosion and Materials Degradation</i> , 2021, 2, 61-77.	1.0	4
4	Uniform nucleation of zincate layer through the optimized etching process to prevent failure in electroless plating on 2024 aluminum alloy. <i>Engineering Failure Analysis</i> , 2021, 124, 105326.	1.8	8
5	Exploring mechano-bactericidal nature of <i>Psalmocharias cicadas</i> wings: an analytical nanotopology investigation based on atomic force microscopy characterization. <i>Surfaces and Interfaces</i> , 2021, 26, 101407.	1.5	4
6	Effect of hydrogen peroxide on bovine serum albumin adsorption on Ti6Al4V alloy: A scanning Kelvin probe force microscopy study. <i>Applied Surface Science</i> , 2021, 563, 150364.	3.1	13
7	Encapsulation of Cerium Nitrate within Poly(urea-formaldehyde) Microcapsules for the Development of Self-Healing Epoxy-Based Coating. <i>ACS Omega</i> , 2021, 6, 31147-31153.	1.6	12
8	Electrochemical and statistical analyses of the combined effect of air-entraining admixture and micro-silica on corrosion of reinforced concrete. <i>Construction and Building Materials</i> , 2020, 262, 120768.	3.2	22
9	Corrosion Performance of Steel Rebars in the Roof of a 65-Year-Old Underground Reinforced Concrete Water-Storage Tank. <i>Journal of Performance of Constructed Facilities</i> , 2020, 34, .	1.0	3
10	Effect of Substrate Grain Size on Structural and Corrosion Properties of Electrodeposited Nickel Layer Protected with Self-Assembled Film of Stearic Acid. <i>Materials</i> , 2020, 13, 2052.	1.3	15
11	Effect of NH ₄ Cl on the microstructure, wettability and corrosion behavior of electrodeposited Ni-Zn coatings with hierarchical nano/microstructure. <i>Surface and Coatings Technology</i> , 2020, 394, 125825.	2.2	25
12	Fabrication of micro-nano-roughened surface with superhydrophobic character on an aluminium alloy surface by a facile chemical etching process. <i>Bulletin of Materials Science</i> , 2020, 43, 1.	0.8	26
13	Compatibility of fabrication of superhydrophobic surfaces and addition of inhibitors in designing corrosion prevention strategies for electrodeposited nickel in saline solutions. <i>Applied Surface Science</i> , 2019, 493, 1243-1254.	3.1	25
14	Characterization of the passive layer on ferrite and austenite phases of super duplex stainless steel. <i>Applied Surface Science</i> , 2019, 496, 143634.	3.1	25
15	Experimental and computational chemistry studies of two imidazole-based compounds as corrosion inhibitors for mild steel in HCl solution. <i>Journal of Molecular Liquids</i> , 2019, 286, 110915.	2.3	40
16	Microscale investigation of the correlation between microstructure and galvanic corrosion of low alloy steel A508 and its welded 309/308L stainless steel overlay. <i>Corrosion Science</i> , 2019, 154, 49-60.	3.0	50
17	Synergistic effect of a crystal modifier and screw dislocation step defects on the formation mechanism of nickel micro-nanocone. <i>Materials Letters</i> , 2019, 245, 68-72.	1.3	21
18	Characterization of the Native Passive Film on Ferrite and Austenite Phases of Sensitized 2205 Duplex Stainless Steel. <i>Journal of the Electrochemical Society</i> , 2019, 166, C609-C616.	1.3	6

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19	Recycled Cobalt from Spent Li-ion Batteries as a Superhydrophobic Coating for Corrosion Protection of Plain Carbon Steel. <i>Materials</i> , 2019, 12, 90.	1.3	9
20	Application of statistical analysis to evaluate the corrosion resistance of steel rebars embedded in concrete with marble and granite waste dust. <i>Journal of Cleaner Production</i> , 2019, 210, 837-846.	4.6	63
21	Mechanical and durability behaviour of concrete with granite waste dust as partial cement replacement under adverse exposure conditions. <i>Construction and Building Materials</i> , 2019, 194, 143-152.	3.2	80
22	On the material characteristics of a high carbon cast austenitic stainless steel after solution annealing followed by quenching in a CNT nanofluid. <i>International Journal of Materials Research</i> , 2019, 110, 570-576.	0.1	1
23	Correlation between the histogram and power spectral density analysis of AFM and SKPFM images in an AA7023/AA5083 FSW joint. <i>Journal of Alloys and Compounds</i> , 2018, 744, 174-181.	2.8	30
24	Analysis of internal cracks in Type 304 austenitic stainless steel cladding wall of regenerator column in amine treating unit. <i>Engineering Failure Analysis</i> , 2018, 90, 440-450.	1.8	12
25	TiO ₂ /Cu ₂ O coupled oxide films in Cl ⁻ ion containing solution: Volta potential and electronic properties characterization by scanning probe microscopy. <i>Materials Chemistry and Physics</i> , 2018, 212, 403-407.	2.0	16
26	Morphology modification of electrodeposited superhydrophobic nickel coating for enhanced corrosion performance studied by AFM, SEM-EDS and electrochemical measurements. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 547, 81-94.	2.3	33
27	Characterization of screw dislocation-driven growth in nickel micro-nanostructure electrodeposition process by AFM. <i>Materials Letters</i> , 2018, 210, 341-344.	1.3	28
28	Shape evolution of water and saline droplets during icing/melting cycles on superhydrophobic surface. <i>Surface and Coatings Technology</i> , 2018, 333, 201-209.	2.2	20
29	Corrosion behavior and optimization of air-entrained reinforced concrete, incorporating microsilica. <i>Structural Concrete</i> , 2018, 19, 1472-1480.	1.5	13
30	Insights into Galvanic Corrosion Behavior of Ti-Cu Dissimilar Joint: Effect of Microstructure and Volta Potential. <i>Materials</i> , 2018, 11, 1820.	1.3	17
31	Correlation of surface Volta potential with galvanic corrosion initiation sites in solid-state welded Ti-Cu bimetal using AFM-SKPFM. <i>Corrosion Science</i> , 2018, 140, 30-39.	3.0	66
32	Improving corrosion resistance of steel rebars in concrete with marble and granite waste dust as partial cement replacement. <i>Construction and Building Materials</i> , 2018, 185, 110-119.	3.2	86
33	Is cotoneaster manna improving the treatment of neonatal jaundice?. <i>Bangladesh Journal of Pharmacology</i> , 2018, 13, 168-178.	0.1	5
34	Inhibitive effect of Clopidogrel as a green corrosion inhibitor for mild steel; statistical modeling and quantum Monte Carlo simulation studies. <i>Journal of Molecular Liquids</i> , 2018, 269, 193-202.	2.3	49
35	Galvanic corrosion behavior of plain carbon steel-B ₄ C composite in 3.5% NaCl solution with electrochemical noise. <i>Journal of Central South University</i> , 2017, 24, 1-8.	1.2	8
36	3D modeling and control of fuel sloshing in a spacecraft. , 2017, , .		7

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37	Electrochemical Characterization of Natural Chalcopyrite Dissolution in Sulfuric Acid Solution in Presence of Peroxydisulfate. <i>Electrochimica Acta</i> , 2016, 212, 921-928.	2.6	14
38	Rapid diagnosis of mycobacterium tuberculosis with electrical impedance spectroscopy in suspensions using interdigitated microelectrode. <i>Journal of Analytical Chemistry</i> , 2016, 71, 676-684.	0.4	6
39	Enhanced protective properties of epoxy/polyaniline-camphorsulfonate nanocomposite coating on an ultrafine-grained metallic surface. <i>Applied Surface Science</i> , 2016, 376, 121-132.	3.1	21
40	Microstructure and corrosion characterization of the interfacial region in dissimilar friction stir welded AA5083 to AA7023. <i>Corrosion Science</i> , 2016, 107, 133-144.	3.0	81
41	Facile synthesis and investigation of 1,8-dioxooctahydroxanthene derivatives as corrosion inhibitors for mild steel in hydrochloric acid solution. <i>New Journal of Chemistry</i> , 2016, 40, 1278-1286.	1.4	37
42	Theoretical and experimental investigations on corrosion control of 65Cu-35Zn brass in nitric acid by two thiophenol derivatives. <i>Applied Surface Science</i> , 2015, 332, 384-392.	3.1	37
43	Selective Acidic Leaching of Spent Zinc-Carbon Batteries Followed by Zinc Electrowinning. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015, 46, 38-47.	1.0	10
44	Microstructure characterization and electrochemical corrosion behavior of Zn and Zn/Mg alloys in H ₂ SO ₄ solution. <i>Journal of Central South University</i> , 2015, 22, 2007-2013.	1.2	3
45	The Response Surface Method as an Experimental Design Technique to Explore and Model the Performance of Corrosion Inhibitors. <i>Corrosion</i> , 2015, 71, 819-827.	0.5	8
46	The influence of cold plastic deformation on passivity of Ti-6Al-4V alloy studied by electrochemical and local probing techniques. <i>Corrosion</i> , 2015, , .	0.5	1
47	Electrochemical corrosion behavior of Pb-Ca-Sn-Sm grid alloy in H ₂ SO ₄ solution. <i>Journal of Alloys and Compounds</i> , 2015, 652, 172-178.	2.8	21
48	Evaluation of corrosion resistance of polypyrrole/functionalized multi-walled carbon nanotubes composite coatings on 60Cu-40Zn brass alloy. <i>Progress in Organic Coatings</i> , 2015, 88, 106-115.	1.9	33
49	Fabrication and electrochemical behavior of plain carbon Steel-B ₄ C-W Composite in 3.5 wt % NaCl solution. <i>Russian Journal of Non-Ferrous Metals</i> , 2015, 56, 461-468.	0.2	1
50	Electrochemical and quantum chemical study of Thiazolo-pyrimidine derivatives as corrosion inhibitors on mild steel in 1M H ₂ SO ₄ . <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 25, 112-121.	2.9	51
51	Studies on corrosion-inhibiting performance of antithyroid drugs on mild steel in hydrochloric acid. <i>Research on Chemical Intermediates</i> , 2015, 41, 4255-4272.	1.3	9
52	Microstructure and corrosion behaviour of plain carbon steel-B ₄ C composite produced by GTAW method in 3.5 wt-%NaCl solution. <i>Corrosion Engineering Science and Technology</i> , 2014, 49, 55-65.	0.7	6
53	Water-based acrylic copolymer as an environment-friendly corrosion inhibitor onto carbon steel in 1M H ₂ SO ₄ in static and dynamic conditions. <i>International Journal of Mechanical and Materials Engineering</i> , 2014, 9, .	1.1	3
54	EIS assessment of critical pitting temperature of 2205 duplex stainless steel in acidified ferric chloride solution. <i>Corrosion Science</i> , 2014, 80, 197-204.	3.0	75

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55	The role of constituent phases on corrosion initiation of NiAl bronze in acidic media studied by SEMâ€“EDS, AFM and SKPFM. Corrosion Science, 2014, 80, 104-110.	3.0	78
56	Establishing a correlation between interfacial microstructures and corrosion initiation sites in Al/Cu joints by SEMâ€“EDS and AFMâ€“SKPFM. Corrosion Science, 2014, 79, 148-158.	3.0	70
57	Corrosion evaluation of multi-pass welded nickelâ€“aluminum bronze alloy in 3.5% sodium chloride solution: A restorative application of gas tungsten arc welding process. Materials & Design, 2014, 58, 346-356.	5.1	61
58	Electrochemical and quantum chemical assessment of two organic compounds from pyridine derivatives as corrosion inhibitors for mild steel in HCl solution under stagnant condition and hydrodynamic flow. Corrosion Science, 2014, 78, 138-150.	3.0	250
59	The effect of grid configurations on potential and current density distributions in positive plate of leadâ€“acid battery via numerical modeling. Electrochimica Acta, 2014, 115, 189-196.	2.6	14
60	An insight into the influence of morphological and compositional heterogeneity of an individual intermetallic particle on aluminium alloy corrosion initiation. Materials and Corrosion - Werkstoffe Und Korrosion, 2013, 64, 195-198.	0.8	20
61	Imitating seasonal temperature fluctuations for the H ₂ S corrosion of 304L and 316L austenitic stainless steels. Metals and Materials International, 2013, 19, 731-740.	1.8	3
62	Corrosion Inhibitive Evaluation of an Environmentally Friendly Water-Base Acrylic Terpolymer on Mild Steel in Hydrochloric Acid Media. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5493-5504.	1.1	8
63	New High-Resolution Solution for Measuring Degree of Sensitization of Duplex Stainless Steel 2205 Using Double-Loop Electrochemical Potentiodynamic Reactivation Technique. Corrosion, 2013, 69, 230-242.	0.5	7
64	Water-base acrylic terpolymer as a corrosion inhibitor for SAE1018 in simulated sour petroleum solution in stagnant and hydrodynamic conditions. Corrosion Science, 2012, 64, 44-54.	3.0	78
65	Critical pitting temperature (CPT) assessment of 2205 duplex stainless steel in 0.1M NaCl at various molybdate concentrations. Corrosion Science, 2011, 53, 513-522.	3.0	81
66	Improving the corrosion behaviour of powder metallurgical 316L alloy by prepassivation in 20% nitric acid. Corrosion Science, 2011, 53, 135-146.	3.0	15
67	A comparative H ₂ S corrosion study of 304L and 316L stainless steels in acidic media. Corrosion Science, 2011, 53, 399-408.	3.0	103
68	Correlation between critical pitting temperature and degree of sensitisation on alloy 2205 duplex stainless steel. Corrosion Science, 2011, 53, 637-644.	3.0	88
69	Critical pitting temperature dependence of 2205 duplex stainless steel on dichromate ion concentration in chloride medium. Corrosion Science, 2011, 53, 1278-1287.	3.0	73
70	Theoretical and electrochemical assessment of inhibitive behavior of some thiophenol derivatives on mild steel in HCl. Corrosion Science, 2011, 53, 3058-3067.	3.0	82
71	Effect of thermomechanical parameters on dynamically recrystallized grain size of AZ91 magnesium alloy. Journal of Alloys and Compounds, 2011, 509, 2703-2708.	2.8	48
72	Inhibitive effect of synthesized 2-(3-pyridyl)-3,4-dihydro-4-quinazolinone as a corrosion inhibitor for mild steel in hydrochloric acid. Materials Chemistry and Physics, 2011, 126, 873-879.	2.0	76

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73	Minuscule device for hydrogen generation/electrical energy collection system on aluminum alloy surface. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 2855-2859.	3.8	7
74	Microstructural and mechanical properties of friction stir welded Cu-30Zn brass alloy at various feed speeds: Influence of stir bands. <i>Materials & Design</i> , 2011, 32, 2749-2755.	5.1	57
75	Post-weld heat treatment influence on galvanic corrosion of GTAW of 17-4PH stainless steel in 3-5%NaCl. <i>Corrosion Engineering Science and Technology</i> , 2011, 46, 415-424.	0.7	25
76	Galvanic corrosion of gas tungsten arc repair welds in 17-4PH stainless steel in 3-5% NaCl solution. <i>Corrosion Engineering Science and Technology</i> , 2011, 46, 406-414.	0.7	6
77	Tuning DOS measuring parameters based on double-loop EPR in H ₂ SO ₄ containing KSCN by Taguchi method. <i>Corrosion Science</i> , 2010, 52, 2653-2660.	3.0	41
78	The effect of homogenization on microstructure and hot ductility behaviour of AZ91 magnesium alloy. <i>Metallic Materials</i> , 2010, 48, 277-3487.	0.2	8
79	Developing an AFM-Based SECM System; Instrumental Setup, SECM Simulation, Characterization, and Calibration. <i>Journal of the Electrochemical Society</i> , 2008, 155, C474.	1.3	26
80	Multianalytical and In Situ Studies of Localized Corrosion of EN AW-3003 Alloy—Influence of Intermetallic Particles. <i>Journal of the Electrochemical Society</i> , 2008, 155, C138.	1.3	37
81	The Role of Intermetallic Particles in Localized Corrosion of an Aluminum Alloy Studied by SKPFM and Integrated AFM/SECM. <i>Journal of the Electrochemical Society</i> , 2008, 155, C211.	1.3	110
82	Integrated AFM and SECM for in situ studies of localized corrosion of Al alloys. <i>Electrochimica Acta</i> , 2007, 52, 7697-7705.	2.6	124
83	Probing of local dissolution of Al-alloys in chloride solutions by AFM and SECM. <i>Applied Surface Science</i> , 2006, 252, 5499-5503.	3.1	66
84	In Situ Investigation of Localized Corrosion of Aluminum Alloys in Chloride Solution Using Integrated EC-AFM/SECM Techniques. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, B21.	2.2	88
85	Electrochemical Study of Corrosion Inhibition Behavior of Dehydroabietylamine Against Mild Steel in 1 M HCl. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 0, , 1.	0.3	0