

Renato A Antunes

List of Publications by Year in descending order

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2409
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#	ARTICLE	IF	CITATIONS
1	Bipolar Plates in Redox Flow Batteries, Fuel Cells and Electrolyzers. , 2022, , 514-523.		0
2	Effects of Sn, Gd, and Mn additions on the surface chemistry and electrochemical behavior of CuAl-based alloys in sodium chloride solution. Applied Surface Science, 2022, 573, 151488.	3.1	3
3	Quaternary CuAlMn-based alloys with Gd and Sn additions: Surface chemistry and corrosion behavior in sodium chloride solution. Journal of Materials Research and Technology, 2022, 16, 1213-1230.	2.6	4
4	Development of an Al ³⁺ ion-selective microelectrode for the potentiometric microelectrochemical monitoring of corrosion sites on 2098-T351 aluminum alloy surfaces. Electrochimica Acta, 2022, 415, 140260.	2.6	6
5	A Cerium-Based Nanocoating for Corrosion Protection of the AA1230 as Clad Material for the AA2024-T3 Alloy. Materials Research, 2022, 25, .	0.6	4
6	Electrochemical characterization of alloy segregation in the near-surface deformed layer of welded zones of an Al-Cu-Li alloy using scanning electrochemical microscopy. Electrochimica Acta, 2022, 427, 140873.	2.6	3
7	Surface finishing effects on the corrosion behavior and electrochemical activity of 2098-T351 aluminum alloy investigated using scanning microelectrochemical techniques. Materials Characterization, 2022, 191, 112130.	1.9	4
8	Graphene-based coatings for magnesium alloys: exploring the correlation between coating architecture, deposition methods, corrosion resistance and materials selection. Corrosion Reviews, 2022, 40, 427-451.	1.0	4
9	Corrosion protection of the AA2198-T8 alloy by environmentally friendly organic-inorganic sol-gel coating based on bis-(triethoxysilyl) ethane. Surface and Interface Analysis, 2021, 53, 314-329.	0.8	2
10	Global and Local Corrosion of Welded Joints of High-Strength Low-Alloy Automotive Steel. Corrosion, 2021, 77, 564-576.	0.5	3
11	On the local corrosion behavior of coupled welded zones of the 2098-T351 Al-Cu-Li alloy produced by Friction Stir Welding (FSW): An amperometric and potentiometric microelectrochemical investigation. Electrochimica Acta, 2021, 373, 137910.	2.6	11
12	On the Interaction between Uniaxial Stress Loading and the Corrosion Behavior of the ISO 5832-1 Surgical Stainless Steel. Journal of Materials Engineering and Performance, 2021, 30, 2691-2707.	1.2	1
13	Structural Characterization, Global and Local Electrochemical Activity of Electroless Ni-P-Multiwalled Carbon Nanotube Composite Coatings on Pipeline Steel. Metals, 2021, 11, 982.	1.0	7
14	Passive film composition and stability of CoCrFeNi and CoCrFeNiAl high entropy alloys in chloride solution. Materials Chemistry and Physics, 2021, 267, 124582.	2.0	18
15	Effect of Milling Parameters on the Stability of the Passive Film of AISI 304 Stainless Steel. Journal of Materials Engineering and Performance, 2021, 30, 8131.	1.2	3
16	Surface properties enhancement by sulfur-doping TiO ₂ films. Materials Research Bulletin, 2021, 143, 111460.	2.7	7
17	Synthesis of few-layered graphene sheets as support of cobalt nanoparticles and its influence on CO hydrogenation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 273, 115388.	1.7	4
18	Influence of Anodization on the Fatigue and Corrosion-Fatigue Behaviors of the AZ31B Magnesium Alloy. Metals, 2021, 11, 1573.	1.0	8

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19	Interplay between the composition of the passive film and the corrosion resistance of citric acid-passivated AISI 316L stainless steel. <i>Surface and Interface Analysis</i> , 2021, 53, 374-384.	0.8	3
20	Corrosion of Al ₈₅ Ni ₉ Ce ₆ amorphous alloy in the first hours of immersion in 3.5 wt% NaCl solution: The role of surface chemistry. <i>Surface and Interface Analysis</i> , 2020, 52, 50-62.	0.8	3
21	Tartaric-sulphuric acid anodized clad AA2024-T3 post-treated in Ce-containing solutions at different temperatures: Corrosion behaviour and Ce ions distribution. <i>Applied Surface Science</i> , 2020, 534, 147634.	3.1	17
22	Electronic properties of the passive films formed on CoCrFeNi and CoCrFeNiAl high entropy alloys in sodium chloride solution. <i>Journal of Materials Research and Technology</i> , 2020, 9, 13879-13892.	2.6	53
23	Gold nanochannels oxidation by confined water. <i>RSC Advances</i> , 2020, 10, 36980-36987.	1.7	0
24	Surface Chemistry and Semiconducting Properties of Passive Film and Corrosion Resistance of Annealed Surgical Stainless Steel. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 6085-6100.	1.2	7
25	Surface chemistry, film morphology, local electrochemical behavior and cytotoxic response of anodized AZ31B magnesium alloy. <i>Journal of Materials Research and Technology</i> , 2020, 9, 14754-14770.	2.6	17
26	Influence of the Electrolyte Composition on the Corrosion Behavior of Anodized AZ31B Magnesium Alloy. <i>Materials Science Forum</i> , 2020, 1012, 424-429.	0.3	0
27	Exploring the relationship between the surface chemistry and the corrosion behavior of electropolymerized polypyrrole films deposited on the surgical ISO 5832-1 stainless steel. <i>Surface and Interface Analysis</i> , 2020, 52, 635-644.	0.8	1
28	Galvanic and asymmetry effects on the local electrochemical behavior of the 2098-T351 alloy welded by friction stir welding. <i>Journal of Materials Science and Technology</i> , 2020, 45, 162-175.	5.6	20
29	Stress Corrosion Cracking of Structural Nuclear Materials: Influencing Factors and Materials Selection. <i>Innovations in Corrosion and Materials Science</i> , 2020, 10, 5-24.	0.2	0
30	The local electrochemical behavior of the AA2098-T351 and surface preparation effects investigated by scanning electrochemical microscopy. <i>Surface and Interface Analysis</i> , 2019, 51, 982-992.	0.8	12
31	Structural, Adhesion and Electrochemical Characterization of Electroless Plated Ni-P-Carbon Black Composite Films on API 5L X80 Steel. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 4751-4761.	1.2	6
32	Exfoliation corrosion susceptibility in the zones of friction stir welded AA2098-T351. <i>Journal of Materials Research and Technology</i> , 2019, 8, 5916-5929.	2.6	15
33	Surface Analysis, Microstructural Characterization and Local Corrosion Processes in Decarburized SAE 9254 Spring Steel. <i>Corrosion</i> , 2019, 75, 1474-1486.	0.5	1
34	Investigation on the Relationship between the Surface Chemistry and the Corrosion Resistance of Electrochemically Nitrided AISI 304 Stainless Steel. <i>International Journal of Corrosion</i> , 2019, 2019, 1-12.	0.6	7
35	The effect of manufacturing process induced near-surface deformed layer on the corrosion behaviour of AA2198-T851 Al-Cu-Li alloy. <i>Corrosion Engineering Science and Technology</i> , 2019, 54, 205-215.	0.7	14
36	The effect of surface pretreatment on the corrosion behaviour of silanated AA2198-T851 Al-Cu-Li alloy. <i>Surface and Interface Analysis</i> , 2019, 51, 275-289.	0.8	6

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37	Scanning Electrochemical Microscopy (SECM) Study of the Electrochemical Behavior of Anodized AZ31B Magnesium Alloy in Simulated Body Fluid. <i>Materials Research</i> , 2019, 22, .	0.6	3
38	Influence of the Treatment Time on the Surface Chemistry and Corrosion Behavior of Cerium-Based Conversion Coatings on the AZ91D Magnesium Alloy. <i>Materials Research</i> , 2019, 22, .	0.6	4
39	Tribological Evaluation of an Optical Fiber Laser Marked Stainless Steel for Biomedical Applications. <i>IFMBE Proceedings</i> , 2019, , 99-103.	0.2	1
40	The peeling resistance of flexible laminated food packaging: Roles of the NCO:OH ratio and aluminum surface aging times. <i>Journal of Adhesion</i> , 2018, 94, 784-798.	1.8	3
41	Polyaniline/Carbon black nanocomposites: The role of synthesis conditions on the morphology and properties. <i>Materials Today Communications</i> , 2018, 16, 14-21.	0.9	21
42	Effect of silicate-based films on the corrosion behavior of the API 5L X80 pipeline steel. <i>Corrosion Science</i> , 2018, 139, 21-34.	3.0	24
43	Preparation and characterization of copper thin film obtained by metal plasma immersion ion implantation and deposition. <i>Thin Solid Films</i> , 2018, 649, 136-141.	0.8	3
44	Study of the Correlation between Microstructure and Corrosion Resistance of the AZ91D Magnesium Alloy. <i>Materials Science Forum</i> , 2018, 930, 405-410.	0.3	2
45	Study of the Corrosion Process of AZ91D Magnesium Alloy during the First Hours of Immersion in 3.5%wt.% NaCl Solution. <i>International Journal of Corrosion</i> , 2018, 2018, 1-20.	0.6	9
46	Influence of the Tungsten Content on Surface Properties of Electroless Ni-W-P Coatings. <i>Materials Research</i> , 2018, 21, .	0.6	10
47	Surface chemistry and the corrosion behavior of magnetron sputtered niobium oxide films in sulfuric acid solution. <i>Applied Surface Science</i> , 2018, 462, 344-352.	3.1	17
48	Materials Selection of Optimized Titanium Alloys for Aircraft Applications. <i>Materials Research</i> , 2018, 21, .	0.6	42
49	Study of the correlation between flexible food packaging peeling resistance and surface composition for aluminum-metallized BOPP films aged at 60°C. <i>Journal of Adhesion</i> , 2017, 93, 4-17.	1.8	7
50	Corrosion Behavior of Metal Active Gas Welded Joints of a High-Strength Steel for Automotive Application. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 4718-4731.	1.2	4
51	Electrochemical Study of the AISI 409 Ferritic Stainless Steel: Passive Film Stability and Pitting Nucleation and Growth. <i>Materials Research</i> , 2017, 20, 1669-1680.	0.6	26
52	The effect of mechanical polishing and finishing on the corrosion resistance of AISI 304 stainless steel. <i>Corrosion Engineering Science and Technology</i> , 2016, 51, 416-428.	0.7	13
53	Preparation and characterization of the structure and corrosion behavior of wedge mold cast Fe _{43.2} Co _{28.8} B _{19.2} Si _{4.8} Nb ₄ bulk amorphous alloy. <i>Journal of Alloys and Compounds</i> , 2016, 682, 412-417.	2.8	17
54	Effect of temperature on corrosion and semiconducting properties of oxide films formed on M5 zirconium alloy. <i>Corrosion Engineering Science and Technology</i> , 2016, 51, 104-109.	0.7	4

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55	FCAW repair welding cycles, HAZ microstructure and corrosion resistance of 2304 duplex stainless steel. <i>Corrosion Engineering Science and Technology</i> , 2016, 51, 573-580.	0.7	12
56	Corrosion of thin, magnetron sputtered Nb 2 O 5 films. <i>Corrosion Science</i> , 2016, 102, 317-325.	3.0	41
57	Effect of Processing on Microstructure and Corrosion Mitigating Properties of Hydrotalcite Coatings on AA 6061 Alloy. <i>Materials Research</i> , 2015, 18, 1203-1208.	0.6	4
58	Properties of aluminum oxide thin film obtained by metal plasma immersion ion implantation and deposition after zirconium-based pretreatment. <i>Vacuum</i> , 2015, 121, 32-41.	1.6	7
59	Influence of injection temperature and pressure on the microstructure, mechanical and corrosion properties of a AlSiCu alloy processed by HPDC. <i>Materials and Design</i> , 2015, 88, 1071-1081.	3.3	36
60	Hydrogen Embrittlement of Zirconium-Based Alloys for Nuclear Fuel Cladding. <i>Innovations in Corrosion and Materials Science</i> , 2015, 4, 96-106.	0.2	2
61	Characterization of Corrosion Products on Carbon Steel Exposed to Natural Weathering and to Accelerated Corrosion Tests. <i>International Journal of Corrosion</i> , 2014, 2014, 1-9.	0.6	55
62	Structural Characterization and Corrosion Stability of a Si-Doped DLC Coating Applied on Cylinder Liner. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 3926-3933.	1.2	10
63	Corrosion Performance of Anodized AZ91D Magnesium Alloy: Effect of the Anodizing Potential on the Film Structure and Corrosion Behavior. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 593-603.	1.2	23
64	Materials selection for hot stamped automotive body parts: An application of the Ashby approach based on the strain hardening exponent and stacking fault energy of materials. <i>Materials & Design</i> , 2014, 63, 247-256.	5.1	37
65	Sensitization Behavior of Type 409 Ferritic Stainless Steel: Confronting DL-EPR Test and Practice W of ASTM A763. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 2164-2173.	1.2	14
66	Corrosion behavior of polyphenylene sulfideâ€“carbon blackâ€“graphite composites for bipolar plates of polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 16405-16418.	3.8	34
67	Surface interactions of a W-DLC-coated biomedical AISI 316L stainless steel in physiological solution. <i>Journal of Materials Science: Materials in Medicine</i> , 2013, 24, 863-876.	1.7	10
68	Corrosion in biomass combustion: A materials selection analysis and its interaction with corrosion mechanisms and mitigation strategies. <i>Corrosion Science</i> , 2013, 76, 6-26.	3.0	137
69	Correlation between the corrosion resistance and the semiconducting properties of the oxide film formed on AZ91D alloy after solution treatment. <i>Corrosion Science</i> , 2013, 69, 311-321.	3.0	31
70	Corrosion and thermal stability of multi-walled carbon nanotubeâ€“graphiteâ€“acrylonitrileâ€“butadieneâ€“styrene composite bipolar plates for polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2013, 221, 345-355.	4.0	28
71	Study of the correlation between corrosion resistance and semiâ€“conducting properties of the passive film of AISI 316L stainless steel in physiological solution. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2012, 63, 586-592.	0.8	20
72	Effect of Passivation Treatments on the Corrosion Resistance of PIM 316L Stainless Steel in a PEM Fuel Cell Simulated Environment. <i>Materials Science Forum</i> , 2012, 727-728, 96-101.	0.3	0

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73	Corrosion fatigue of biomedical metallic alloys: Mechanisms and mitigation. Acta Biomaterialia, 2012, 8, 937-962.	4.1	203
74	Materials selection for bipolar plates for polymer electrolyte membrane fuel cells using the Ashby approach. Journal of Power Sources, 2012, 206, 3-13.	4.0	71
75	Investigation on the corrosion resistance of carbon black-graphite-poly(vinylidene fluoride) composite bipolar plates for polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2011, 36, 12474-12485.	3.8	40
76	Carbon materials in composite bipolar plates for polymer electrolyte membrane fuel cells: A review of the main challenges to improve electrical performance. Journal of Power Sources, 2011, 196, 2945-2961.	4.0	238
77	Study of the corrosion resistance and in vitro biocompatibility of PVD TiCN-coated AISI 316 L austenitic stainless steel for orthopedic applications. Surface and Coatings Technology, 2010, 205, 2074-2081.	2.2	94
78	Corrosion of metal bipolar plates for PEM fuel cells: A review. International Journal of Hydrogen Energy, 2010, 35, 3632-3647.	3.8	399
79	Corrosion Processes of Physical Vapor Deposition-Coated Metallic Implants. Critical Reviews in Biomedical Engineering, 2009, 37, 425-460.	0.5	29
80	Corrosion resistance of three austenitic stainless steels for biomedical applications. Materials and Corrosion - Werkstoffe Und Korrosion, 2007, 58, 762-766.	0.8	13
81	The Corrosion Behaviour of TiN-Coated Powder Injection Molded AISI 316L Steel. Materials Science Forum, 2006, 530-531, 105-110.	0.3	0
82	Comparison of the corrosion resistance of DIN W. Nr. 1.4970 (15%Cr-15%Ni-1.2%Mo-Ti) and ASTM F-138 (17%Cr-13%Ni-2.5%Mo) austenitic stainless steels for biomedical applications. Materials Research, 2006, 9, 281-286.	0.6	7
83	A comparative study of their vitro corrosion behavior and cytotoxicity of a superferritic stainless steel, a Ti-13Nb-13Zr alloy, and an austenitic stainless steel in Hank's solution. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2005, 73B, 109-116.	1.6	39
84	Characterization of corrosion products formed on steels in the first months of atmospheric exposure. Materials Research, 2003, 6, 403-408.	0.6	148
85	Investigation on the Corrosion Resistance of PIM 316L Stainless Steel in PEM Fuel Cell Simulated Environment. Materials Science Forum, 0, 660-661, 209-214.	0.3	4
86	A review on Corrosion of High Entropy Alloys: Exploring the Interplay Between Corrosion Properties, Alloy Composition, Passive Film Stability and Materials Selection. Materials Research, 0, 25, .	0.6	27