Mara Cristina Lopes de Oliveira

List of Publications by Year
in descending order

38 papers	1,538 citations	567281 15 h-index	414414 32 g-index
38 all docs	38 docs citations	38 times ranked	1671 citing authors

#	Article	IF	Citations
1	Corrosion of metal bipolar plates for PEM fuel cells: A review. International Journal of Hydrogen Energy, 2010, 35, 3632-3647.	7.1	399
2	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.	7.8	238
3	Corrosion fatigue of biomedical metallic alloys: Mechanisms and mitigation. Acta Biomaterialia, 2012, 8, 937-962.	8.3	203
4	Corrosion in biomass combustion: A materials selection analysis and its interaction with corrosion mechanisms and mitigation strategies. Corrosion Science, 2013, 76, 6-26.	6.6	137
5	Materials selection for bipolar plates for polymer electrolyte membrane fuel cells using the Ashby approach. Journal of Power Sources, 2012, 206, 3-13.	7.8	71
6	Materials Selection of Optimized Titanium Alloys for Aircraft Applications. Materials Research, 2018, 21, .	1.3	42
7	Corrosion of thin, magnetron sputtered Nb 2 O 5 films. Corrosion Science, 2016, 102, 317-325.	6.6	41
8	Investigation on the corrosion resistance of carbon blackâ€“graphite-poly(vinylidene fluoride) composite bipolar plates for polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2011, 36, 12474-12485.	7.1	40
9	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. Materials & Design, 2014, 63, 247-256.	5.1	37
10	Corrosion behavior of polyphenylene sulfideâ€“carbon blackâ€“graphite composites for bipolar plates of polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2014, 39, 16405-16418.	7.1	34
11	Correlation between the corrosion resistance and the semiconducting properties of the oxide film formed on AZ91D alloy after solution treatment. Corrosion Science, 2013, 69, 311-321.	6.6	31
12	Corrosion Processes of Physical Vapor Deposition-Coated Metallic Implants. Critical Reviews in Biomedical Engineering, 2009, 37, 425-460.	0.9	29
13	Corrosion and thermal stability of multi-walled carbon nanotubeâ€“graphiteâ€“acrylonitrileâ€“butadieneâ€“styrene composite bipolar plates for polymer electrolyte membrane fuel cells. Journal of Power Sources, 2013, 221, 345-355.	7.8	28
14	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, .	1.3	27
15	Effect of silicate-based films on the corrosion behavior of the API 5L X80 pipeline steel. Corrosion Science, 2018, 139, 21-34.	6.6	24
16	Corrosion Performance of Anodized AZ91D Magnesium Alloy: Effect of the Anodizing Potential on the Film Structure and Corrosion Behavior. Journal of Materials Engineering and Performance, 2014, 23, 593-603.	2.5	23
17	Study of the correlation between corrosion resistance and semiâ€conducting properties of the passive film of AISI 316L stainless steel in physiological solution. Materials and Corrosion - Werkstoffe Und Korrosion, 2012, 63, 586-592.	1.5	20
18	Surface chemistry and the corrosion behavior of magnetron sputtered niobium oxide films in sulfuric acid solution. Applied Surface Science, 2018, 462, 344-352.	6.1	17

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19	Sensitization Behavior of Type 409 Ferritic Stainless Steel: Confronting DL-EPR Test and Practice W of ASTM A763. Journal of Materials Engineering and Performance, 2014, 23, 2164-2173.	2.5	14
20	The effect of mechanical polishing and finishing on the corrosion resistance of AISI 304 stainless steel. Corrosion Engineering Science and Technology, 2016, 51, 416-428.	1.4	13
21	Structural Characterization and Corrosion Stability of a Si-Doped DLC Coating Applied on Cylinder Liner. Journal of Materials Engineering and Performance, 2014, 23, 3926-3933.	2.5	10
22	Study of the Corrosion Process of AZ91D Magnesium Alloy during the First Hours of Immersion in 3.5â€‰wt.% NaCl Solution. International Journal of Corrosion, 2018, 2018, 1-20.	1.1	9
23	Investigation on the Relationship between the Surface Chemistry and the Corrosion Resistance of Electrochemically Nitrided AISI 304 Stainless Steel. International Journal of Corrosion, 2019, 2019, 1-12.	1.1	7
24	Structural Characterization, Global and Local Electrochemical Activity of Electroless Niâ€“P-Multiwalled Carbon Nanotube Composite Coatings on Pipeline Steel. Metals, 2021, 11, 982.	2.3	7
25	Effect of molybdate on phosphating of Nd-Fe-B magnets for corrosion protection. Materials Research, 2005, 8, 147-150.	1.3	6
26	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
27	Effect of temperature on corrosion and semiconducting properties of oxide films formed on M5 zirconium alloy. Corrosion Engineering Science and Technology, 2016, 51, 104-109.	1.4	4
28	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.	2.0	4
29	Effect of surface treatments onÂthe fatigue life of magnesium and its alloys for biomedical applications. , 2015, , 283-310.		3
30	Preparation and characterization of copper thin film obtained by metal plasma immersion ion implantation and deposition. Thin Solid Films, 2018, 649, 136-141.	1.8	3
31	Corrosion of Al₈₅Ni₉Ce₆ amorphous alloy in the first hours of immersion in 3.5â€wt% NaCl solution: The role of surface chemistry. Surface and Interface Analysis, 2020, 52, 50-62.	1.8	3
32	Interplay between the composition of the passive film and the corrosion resistance of citric acidâ€passivated AISI 316L stainless steel. Surface and Interface Analysis, 2021, 53, 374-384.	1.8	3
33	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.	6.1	3
34	EIS investigation of the corrosion resistance of uncoated and coated Nd-Fe-B magnets in PBS solution. Journal of the Brazilian Chemical Society, 2011, 22, 264-271.	0.6	2
35	Hydrogen Embrittlement of Zirconium-Based Alloys for Nuclear Fuel Cladding. Innovations in Corrosion and Materials Science, 2015, 4, 96-106.	0.2	2
36	Effect of Passivation Treatments on the Corrosion Resistance of PIM 316L Stainless Steel in a PEM Fuel Cell Simulated Environment. Materials Science Forum, 2012, 727-728, 96-101.	0.3	0

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37	Stress Corrosion Cracking of Structural Nuclear Materials: Influencing Factors and Materials Selection. Innovations in Corrosion and Materials Science, 2020, 10, 5-24.	0.2	0
38	Bipolar Plates in Redox Flow Batteries, Fuel Cells and Electrolyzers. , 2022, , 514-523.		0