

Mara Cristina Lopes de Oliveira

List of Publications by Year in descending order

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38
papers

1,538
citations

566801

15
h-index

414034

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. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 3632-3647.	3.8	399
2	Carbon materials in composite bipolar plates for polymer electrolyte membrane fuel cells: A review of the main challenges to improve electrical performance. <i>Journal of Power Sources</i> , 2011, 196, 2945-2961.	4.0	238
3	Corrosion fatigue of biomedical metallic alloys: Mechanisms and mitigation. <i>Acta Biomaterialia</i> , 2012, 8, 937-962.	4.1	203
4	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
5	Materials selection for bipolar plates for polymer electrolyte membrane fuel cells using the Ashby approach. <i>Journal of Power Sources</i> , 2012, 206, 3-13.	4.0	71
6	Materials Selection of Optimized Titanium Alloys for Aircraft Applications. <i>Materials Research</i> , 2018, 21, .	0.6	42
7	Corrosion of thin, magnetron sputtered Nb ₂ O ₅ films. <i>Corrosion Science</i> , 2016, 102, 317-325.	3.0	41
8	Investigation on the corrosion resistance of carbon black-graphite-poly(vinylidene fluoride) composite bipolar plates for polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 12474-12485.	3.8	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. <i>Materials & Design</i> , 2014, 63, 247-256.	5.1	37
10	Corrosion behavior of polyphenylene sulfide-carbon black-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
11	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
12	Corrosion Processes of Physical Vapor Deposition-Coated Metallic Implants. <i>Critical Reviews in Biomedical Engineering</i> , 2009, 37, 425-460.	0.5	29
13	Corrosion and thermal stability of multi-walled carbon nanotube-graphite-acrylonitrile-butadiene-styrene composite bipolar plates for polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2013, 221, 345-355.	4.0	28
14	A review on Corrosion of High Entropy Alloys: Exploring the Interplay Between Corrosion Properties, Alloy Composition, Passive Film Stability and Materials Selection. <i>Materials Research</i> , 0, 25, .	0.6	27
15	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
16	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
17	Study of the correlation between corrosion resistance and semi-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
18	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

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19	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
20	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
21	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
22	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
23	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
24	Structural Characterization, Global and Local Electrochemical Activity of Electroless Ni-P-Multiwalled Carbon Nanotube Composite Coatings on Pipeline Steel. <i>Metals</i> , 2021, 11, 982.	1.0	7
25	Effect of molybdate on phosphating of Nd-Fe-B magnets for corrosion protection. <i>Materials Research</i> , 2005, 8, 147-150.	0.6	6
26	Investigation on the Corrosion Resistance of PIM 316L Stainless Steel in PEM Fuel Cell Simulated Environment. <i>Materials Science Forum</i> , 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. <i>Corrosion Engineering Science and Technology</i> , 2016, 51, 104-109.	0.7	4
28	Graphene-based coatings for magnesium alloys: exploring the correlation between coating architecture, deposition methods, corrosion resistance and materials selection. <i>Corrosion Reviews</i> , 2022, 40, 427-451.	1.0	4
29	Effect of surface treatments on the 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. <i>Thin Solid Films</i> , 2018, 649, 136-141.	0.8	3
31	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
32	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
33	Effects of Sn, Gd, and Mn additions on the surface chemistry and electrochemical behavior of CuAl-based alloys in sodium chloride solution. <i>Applied Surface Science</i> , 2022, 573, 151488.	3.1	3
34	EIS investigation of the corrosion resistance of uncoated and coated Nd-Fe-B magnets in PBS solution. <i>Journal of the Brazilian Chemical Society</i> , 2011, 22, 264-271.	0.6	2
35	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
36	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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37	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
38	Bipolar Plates in Redox Flow Batteries, Fuel Cells and Electrolyzers. , 2022, , 514-523.		0