Marcelo FalcÃ£o de Oliveira

List of Publications by Year
in descending order

62 papers	764 citations	516710 16 h-index	610901 24 g-index
63 all docs	63 docs citations	63 times ranked	652 citing authors

#	Article	IF	Citations
1	Corrosion resistance of amorphous and nanocrystalline Feâ€“Mâ€“B (Mî—»Zr, Nb) alloys. Journal of Non-Crystalline Solids, 2000, 273, 282-288.	3.1	63
2	Topological instability and electronegativity effects on the glass-forming ability of metallic alloys. Philosophical Magazine Letters, 2008, 88, 785-791.	1.2	36
3	Crystallisation behaviours of Al-based metallic glasses: Compositional and topological aspects. Journal of Alloys and Compounds, 2009, 483, 89-93.	5.5	34
4	Crystallization behavior of amorphous Al84Y9Ni5Co2 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 332-337.	5.6	33
5	Influence of the corrosion on the saturation magnetic density of amorphous and nanocrystalline Fe73Nb3Si15.5B7.5Cu1 and Fe80Zr3.5Nb3.5B12Cu1 alloys. Journal of Non-Crystalline Solids, 2002, 304, 210-216.	3.1	31
6	Topological Instability as a Criterion for Design and Selection of Easy Glass-Former Compositions in Cu-Zr Based Systems. Materials Transactions, 2007, 48, 1739-1742.	1.2	29
7	The elastic-strain energy criterion of phase formation for complex concentrated alloys. Materialia, 2019, 5, 100222.	2.7	29
8	Phases formed during crystallization of Zr55Al10Ni5Cu30 metallic glass containing oxygen. Journal of Non-Crystalline Solids, 2002, 304, 51-55.	3.1	25
9	Topological instability, average electronegativity difference and glass forming ability of amorphous alloys. Intermetallics, 2009, 17, 183-185.	3.9	25
10	Anomalous cyclic oxidation behaviour of a Feâ€“Mnâ€“Siâ€“Crâ€“Ni shape memory alloy. Corrosion Science, 2017, 119, 112-117.	6.6	25
11	Fatigue behavior of friction stir spot welding and riveted joints in an Al alloy. Procedia Engineering, 2010, 2, 1815-1821.	1.2	23
12	Influence of composition and partial crystallization on corrosion resistance of amorphous Feâ€“Mâ€“Bâ€“Cu (M=Zr, Nb, Mo) alloys. Journal of Non-Crystalline Solids, 2001, 284, 99-104.	3.1	20
13	A simple criterion to predict the glass forming ability of metallic alloys. Journal of Applied Physics, 2012, 111, .	2.5	20
14	Connecting, Assemblage and Electromechanical Shaping of Bulk Metallic Glasses. Materials Transactions, JIM, 2000, 41, 1501-1504.	0.9	18
15	Growth and microstructural characterization of SnSe-SnSe2 composite. Journal of Materials Science, 1999, 34, 4607-4612.	3.7	17
16	Crystallisation behaviour and glass-forming ability in Alâ€“Laâ€“Ni system. Journal of Alloys and Compounds, 2010, 495, 334-337.	5.5	17
17	Amorphous phase partitioning in FeCo-based metallic glass alloys. Journal of Non-Crystalline Solids, 2004, 348, 250-257.	3.1	15
18	Electromechanical shaping, assembly and engraving of bulk metallic glasses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 227-234.	5.6	14

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19	Oxidation and abrasive wear of Feâ€“Si and Feâ€“Al intermetallic alloys. Journal of Materials Science, 2010, 45, 5393-5397.	3.7	13
20	Applying a new criterion to predict glass forming alloys in the Zrâ€“Niâ€“Cu ternary system. Journal of Alloys and Compounds, 2013, 553, 212-215.	5.5	13
21	A basin-hopping Monte Carlo investigation of the structural and energetic properties of 55- and 561-atom bimetallic nanoclusters: the examples of the ZrCu, ZrAl, and CuAl systems. Journal of Physics Condensed Matter, 2016, 28, 175302.	1.8	13
22	Selection of good glass former compositions in Niâ€“Ti system using a combination of topological instability and thermodynamic criteria. Journal of Non-Crystalline Solids, 2008, 354, 1932-1935.	3.1	12
23	Effect of oxide particles on the crystallisation behaviour of Zr55Al10Ni5Cu30 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 665-669.	5.6	11
24	Thermodynamic and topological instability approaches for forecasting glass-forming ability in the ternary Alâ€“Niâ€“Y system. Journal of Alloys and Compounds, 2008, 464, 118-121.	5.5	11
25	Prediction of good glass formers in the Al-Ni-La and Al-Ni-Gd systems using topological instability and electronegativity. Journal of Applied Physics, 2011, 109, .	2.5	11
26	Anomalous cyclic oxidation behaviour of an Fe-Mn-Si-Cr-Ni alloy - A finite element analysis. Corrosion Science, 2019, 147, 223-230.	6.6	11
27	Directional and rapid solidification of Alâ€“Nbâ€“Ni ternary eutectic alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 565-570.	5.6	10
28	Evaluation of glass forming ability in the Niâ€“Nbâ€“Zr alloy system by the topological instability (Î») criterion. Journal of Alloys and Compounds, 2010, 495, 313-315.	5.5	10
29	Glass formation of alloys selected by lambda and electronegativity criteria in the Tiâ€“Zrâ€“Feâ€“Co system. Journal of Alloys and Compounds, 2010, 495, 316-318.	5.5	10
30	A new correlation between electronic parameters and glass forming ability of metallic alloys. Philosophical Magazine Letters, 2011, 91, 418-422.	1.2	10
31	Accuracy of a selection criterion for glass forming ability in the Niâ€“Nbâ€“Zr system. Journal of Alloys and Compounds, 2014, 615, S23-S28.	5.5	10
32	Corrosion behaviour of a dissimilar joint TIG weld between austenitic AISI 316L and ferritic AISI 444 stainless steels. Welding International, 2016, 30, 268-276.	0.7	10
33	Phase formation maps in Zr48Cu46.5Al4Nb1.5 bulk metallic glass composites as a function of cooling rate and oxygen concentration. Materials Characterization, 2019, 158, 109932.	4.4	10
34	Glass formation in the Tiâ€“Cu system with and without Si additions. Journal of Alloys and Compounds, 2015, 618, 413-420.	5.5	9
35	Resistance upset welding of Zr-based bulk metallic glasses. Journal of Materials Processing Technology, 2018, 255, 760-764.	6.3	9
36	High temperature cyclic oxidation behavior of a low manganese Fe12Mn9Cr5Si4Ni-NbC shape memory stainless steels. Journal of Alloys and Compounds, 2021, 857, 158198.	5.5	9

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37	Electromechanical engraving and writing on bulk metallic glasses. Applied Physics Letters, 2002, 81, 1606-1608.	3.3	7
38	New highly magnetic and oxidation-resistant FeCo-based alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 361, 179-184.	5.6	7
39	Microstructure of undercooled SnSeâ€"SnSe2 hypoeutectic alloy. Journal of Alloys and Compounds, 2004, 375, 142-146.	5.5	7
40	Glass forming ability and continuous-cooling-transformation (CCT) diagrams of Vitreloy 105 as function of cooling rate and oxygen concentration. Journal of Non-Crystalline Solids, 2020, 528, 119762.	3.1	7
41	Oxygen effect on bending behavior of a zirconium based bulk metallic glass. Journal of Non-Crystalline Solids, 2020, 535, 119966.	3.1	7
42	The effect of Nb substitution for Zr in soft magnetic FeCoZrCuB alloy. Journal of Alloys and Compounds, 2004, 369, 121-124.	5.5	6
43	Predicting glass-forming compositions in the Alâ€"La and Alâ€"Laâ€"Ni systems. Journal of Alloys and Compounds, 2011, 509, S170-S174.	5.5	6
44	Synthesis of nanostructured SnO and SnO2 by high-energy milling of Sn powder with stearic acid. Journal of Materials Research, 2014, 29, 84-89.	2.6	6
45	Influence of Small Content Elements Additions on the Glass Forming Ability of Zr-based Bulk Metallic Glasses Alloys. Materials Research, 2018, 21, .	1.3	6
46	Corrosion resistance and glass forming ability of Fe47Co7Cr15M9Si5B15Y2 (M=Mo, Nb) amorphous alloys. Materials Research, 2013, 16, 1294-1298.	1.3	5
47	Wear resistance in hardfacing applied in substrate SAE 1020 using welding process Gas Tungsten Arc Welding (GTAW) alloy Stellite 6 in powder form. Scientific Research and Essays, 2013, 8, 1730-1740.	0.4	4
48	ResistÃªncia Ã corrosÃ£o de junta dissimilar soldada pelo processo TIG composta pelos aÃ§os inoxidÃ¡veis AISI 316L e AISI 444. Soldagem E Inspecao, 2014, 19, 42-50.	0.6	4
49	Crystallization Behavior of Amorphous Ti51.1Cu38.9Ni10.0 Alloy. Materials Research, 2015, 18, 104-108.	1.3	4
50	Structural differences of amorphous Cu65Zr35 between rapidly quenched and topologically destabilized crystalline Cu and Zr metals by molecular dynamics simulations. Computational Materials Science, 2015, 104, 92-97.	3.0	4
51	Metastable phases found in the Ni-Nb-Zr system. Materials Characterization, 2017, 127, 60-63.	4.4	4
52	Effective Method to Enhance the Glass-Forming Ability of Vitreloy 105 Containing High Oxygen Concentrations. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3518-3525.	2.2	4
53	Electromechanical Processing of Bulk Metallic Glasses. Journal of Metastable and Nanocrystalline Materials, 2003, 15-16, 11-16.	0.1	2
54	Selection of new glass-forming compositions in Alâ€"La system using a combination of topological instability and thermodynamic criteria. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 512, 53-57.	5.6	2

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55	Y and Er minor addition effect on glass forming ability of a Niâ€“Nbâ€“Zr alloy. Journal of Alloys and Compounds, 2015, 644, 729-733.	5.5	2
56	Crystalline phases found in rapidly quenched Niâ€“Nbâ€“Zr alloys. Journal of Microscopy, 2017, 267, 49-56.	1.8	2
57	Consolidation of Easy Glass Former Zr₅₅Cu₃₀Al₁₀Ni₅ Alloy Ribbons by Severe Plastic Deformation. Journal of Metastable and Nanocrystalline Materials, 2004, 20-21, 253-256.	0.1	1
58	Alternative Air Induction Meltâ€“Remelt Processing of an Fe3Alâ€“C Intermetallic Alloy: Part Iâ€”Mechanical Properties and the Effects of Loading Rate, Heat Treatment and Test Temperatures. International Journal of Metalcasting, 2022, 16, 1265-1275.	1.9	1
59	Selection of compositions with high glass forming ability in the Ni-Nb-B alloy system. Materials Research, 2012, 15, 718-722.	1.3	0
60	Development of a device adapted to perform the torch gas tungsten arc welding (GTAW) hardfacing using alloys in powder form. Scientific Research and Essays, 2014, 9, 96-105.	0.4	0
61	Vitreloy-105 Behavior Under Mutual Wear. Materials Research, 2020, 23, .	1.3	0
62	Oxide Formation in a Melt Spun Alloy in the Zr-Ni-Cu System. Materials Research, 0, 25, .	1.3	0