

Alberto M Jorge

List of Publications by Year in descending order

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119
papers

2,361
citations

218677

26
h-index

276875

41
g-index

119
all docs

119
docs citations

119
times ranked

2069
citing authors

#	ARTICLE	IF	CITATIONS
1	High cooling rates and metastable phases at the interfaces of explosively welded materials. <i>Acta Materialia</i> , 2017, 135, 277-289.	7.9	184
2	An investigation of hydrogen storage in a magnesium-based alloy processed by equal-channel angular pressing. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 8306-8312.	7.1	96
3	High Strength AA7050 Al alloy processed by ECAP: Microstructure and mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 5804-5811.	5.6	89
4	Dynamic recovery and dynamic recrystallization competition on a Nb- and N-bearing austenitic stainless steel biomaterial: Influence of strain rate and temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 582, 96-107.	5.6	88
5	Nanoscale Grain Refinement and H ₂ Sorption Properties of MgH ₂ Processed by High-Pressure Torsion and Other Mechanical Routes. <i>Advanced Engineering Materials</i> , 2010, 12, 786-792.	3.5	82
6	Influence of morphology and crystalline structure of TiO ₂ nanotubes on their electrochemical properties and apatite-forming ability. <i>Electrochimica Acta</i> , 2017, 245, 337-349.	5.2	65
7	Correlation between hydrogen storage properties and textures induced in magnesium through ECAP and cold rolling. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 3810-3821.	7.1	63
8	Nanostructured MgH ₂ prepared by cold rolling and cold forging. <i>Journal of Alloys and Compounds</i> , 2011, 509, S444-S448.	5.5	54
9	Explosively welded multilayer Ni-Al composites. <i>Materials and Design</i> , 2015, 88, 1082-1087.	7.0	54
10	Prediction of steel flow stresses under hot working conditions. <i>Materials Research</i> , 2005, 8, 309-315.	1.3	53
11	Hydrogen storage in MgAlTiFeNi high entropy alloy. <i>Journal of Alloys and Compounds</i> , 2021, 858, 158357.	5.5	53
12	Magnetic properties of spray-formed Fe-6.5%Si and Fe-6.5%Si-1.0%Al after rolling and heat treatment. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, e653-e656.	2.3	48
13	Effect of competing hardening and softening mechanisms on the flow stress curve modeling of ultra-low carbon steel at high temperatures. <i>Journal of Materials Processing Technology</i> , 2003, 142, 415-421.	6.3	42
14	Mg-Zn-Ca amorphous alloys for application as temporary implant: Effect of Zn content on the mechanical and corrosion properties. <i>Materials and Design</i> , 2016, 110, 188-195.	7.0	41
15	Hydrogen storage properties of pure Mg after the combined processes of ECAP and cold-rolling. <i>Journal of Alloys and Compounds</i> , 2014, 586, S405-S408.	5.5	40
16	Degradation of biodegradable implants: The influence of microstructure and composition of Mg-Zn-Ca alloys. <i>Journal of Alloys and Compounds</i> , 2019, 774, 168-181.	5.5	40
17	Nanoindentation response of Cu-Ti based metallic glasses: Comparison between as-cast, relaxed and devitrified states. <i>Journal of Non-Crystalline Solids</i> , 2015, 425, 103-109.	3.1	38
18	Effect of 4% titanium tetrafluoride solution on dental erosion by a soft drink: An in situ/ex vivo study. <i>Archives of Oral Biology</i> , 2008, 53, 399-404.	1.8	37

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19	Influence of the microstructure on the plastic behaviour of duplex stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 2259-2264.	5.6	35
20	Room temperature hydrogen absorption by Mg and Mg TiFe nanocomposites processed by high-energy ball milling. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 12251-12259.	7.1	32
21	Surface anodization of the biphasic Ti ₁₃ Nb ₁₃ Zr biocompatible alloy: Influence of phases on the formation of TiO ₂ nanostructures. <i>Journal of Alloys and Compounds</i> , 2019, 796, 93-102.	5.5	31
22	Production and Corrosion Resistance of Thermally Sprayed Fe-Based Amorphous Coatings from Mechanically Milled Feedstock Powders. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 4860-4870.	2.2	28
23	H-sorption properties and structural evolution of Mg processed by severe plastic deformation. <i>Journal of Alloys and Compounds</i> , 2013, 580, S187-S191.	5.5	27
24	Interaction between recrystallization and strain-induced precipitation in a high Nb- and N-bearing austenitic stainless steel: Influence of the interpass time. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 637, 189-200.	5.6	27
25	Nanoporous silver for electrocatalysis application in alkaline fuel cells. <i>Materials and Design</i> , 2016, 111, 528-536.	7.0	27
26	Effect of cold rolling on the structure and hydrogen properties of AZ91 and AM60D magnesium alloys processed by ECAP. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 21822-21831.	7.1	27
27	Synthesis and hydrogen sorption properties of Mg ₂ FeH ₆ MgH ₂ nanocomposite prepared by reactive milling. <i>Journal of Alloys and Compounds</i> , 2012, 536, S250-S254.	5.5	26
28	Hot deformation behavior of an Nb- and N-bearing austenitic stainless steel biomaterial. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 543, 69-75.	5.6	25
29	Fabrication of nanoporous silver with open pores. <i>Scripta Materialia</i> , 2015, 100, 21-23.	5.2	25
30	Ni- and Cu-free Ti-based metallic glasses with potential biomedical application. <i>Intermetallics</i> , 2015, 63, 86-96.	3.9	25
31	Severely deformed ZK60+2.5% Mm alloy for hydrogen storage produced by two different processing routes. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 11284-11292.	7.1	25
32	Ag ion decoration for surface modifications of multi-walled carbon nanotubes. <i>Materials Research</i> , 2014, 17, 687-693.	1.3	23
33	Hydrogen storage in heavily deformed ZK60 alloy modified with 2.5% Mm addition. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 4177-4184.	7.1	23
34	The formation of quasicrystal phase in Al-Cu-Fe system by mechanical alloying. <i>Materials Research</i> , 2012, 15, 749-752.	1.3	22
35	Characterization of hydrogen storage properties of Mg-Fe-CNT composites prepared by ball milling, hot-extrusion and severe plastic deformation methods. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 23092-23098.	7.1	21
36	Effect of phosphorus content on the mechanical, microstructure and corrosion properties of supermartensitic stainless steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 650, 75-83.	5.6	21

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37	Prediction of Generation of High- and Low-Angle Grain Boundaries (HAGB and LAGB) During Severe Plastic Deformation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 4674-4684.	2.2	21
38	Interaction between Fe66Cr10Nb5B19 metallic glass and aluminum during spark plasma sintering. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 799, 140165.	5.6	21
39	Severe plastic deformation and different surface treatments on the biocompatible Ti13Nb13Zr and Ti35Nb7Zr5Ta alloys: Microstructural and phase evolutions, mechanical properties, and bioactivity analysis. <i>Journal of Alloys and Compounds</i> , 2020, 812, 152116.	5.5	20
40	Microstructural characterization and hydrogenation study of extruded MgFe alloy. <i>Journal of Alloys and Compounds</i> , 2010, 504, S299-S301.	5.5	19
41	2Mg-Fe alloys processed by hot-extrusion: Influence of processing temperature and the presence of MgO and MgH ₂ on hydrogenation sorption properties. <i>Journal of Alloys and Compounds</i> , 2011, 509, S460-S463.	5.5	19
42	Ordered phases and texture in spray-formed Fe-5wt%Si. <i>Journal of Alloys and Compounds</i> , 2011, 509, S260-S264.	5.5	19
43	Ultra Grain Refinement During the Simulated Thermomechanical-processing of Low Carbon Steel. <i>Journal of Materials Research and Technology</i> , 2012, 1, 141-147.	5.8	19
44	Mg-based Nanocomposites for Hydrogen Storage Containing Ti-Cr-V Alloys as Additives. <i>Materials Research</i> , 2016, 19, 80-85.	1.3	19
45	Biological response of chemically treated surface of the ultrafine-grained Ti-6Al-7Nb alloy for biomedical applications. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 1725-1736.	6.7	19
46	Magnesium-Nickel alloy for hydrogen storage produced by melt spinning followed by cold rolling. <i>Materials Research</i> , 2012, 15, 813-817.	1.3	18
47	Preparation, characterization and photochromic behavior of phosphotungstic acid-ormosil nanocomposites. <i>Materials Chemistry and Physics</i> , 2015, 153, 410-421.	4.0	18
48	Characterization of In-Situ Cu-TiH ₂ C and Cu-TiC Nanocomposites Produced by Mechanical Milling and Spark Plasma Sintering. <i>Metals</i> , 2017, 7, 117.	2.3	18
49	Characterization and Corrosion Resistance of Boron-Containing-Austenitic Stainless Steels Produced by Rapid Solidification Techniques. <i>Materials</i> , 2018, 11, 2189.	2.9	18
50	Structural characterization and hydrogen storage properties of MgH ₂ -Mg ₂ CoH ₅ nanocomposites. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 14593-14601.	7.1	17
51	Effect of Cr addition on the formation of the decagonal quasicrystalline phase of a rapidly solidified Al-Ni-Co alloy. <i>Journal of Alloys and Compounds</i> , 2017, 707, 41-45.	5.5	16
52	Effect of hydrogen on the fatigue behavior of the near- β Ti-5Al-5Mo-5V-3Cr alloy. <i>Scripta Materialia</i> , 2017, 132, 39-43.	5.2	16
53	Formation of Metallic Glass Coatings by Detonation Spraying of a Fe66Cr10Nb5B19 Powder. <i>Metals</i> , 2019, 9, 846.	2.3	16
54	Hydrogen Activation Behavior of Commercial Magnesium Processed by Different Severe Plastic Deformation Routes. <i>Materials Science Forum</i> , 2010, 667-669, 1047-1051.	0.3	15

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55	Microstructural characterization of Ti-6Al-7Nb alloy after severe plastic deformation. <i>Materials Research</i> , 2012, 15, 786-791.	1.3	15
56	Thermal stability of ARMCO iron processed by ECAP. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 98, 2917-2932.	3.0	15
57	Evidence of Strain-Induced Precipitation on a Nb- and N-Bearing Austenitic Stainless Steel Biomaterial. <i>Materials Science Forum</i> , 2005, 500-501, 179-186.	0.3	14
58	Hydrogen storage properties of 2Mgâ€“Fe after the combined processes of hot extrusion and cold rolling. <i>Journal of Alloys and Compounds</i> , 2014, 586, S409-S412.	5.5	14
59	Application of the transmission line model for porous electrodes to analyse the impedance response of TiO ₂ nanotubes in physiological environment. <i>Electrochimica Acta</i> , 2017, 253, 599-608.	5.2	14
60	Corrosion behaviour of biomedical $\hat{2}$ -titanium alloys with the surface-modified by chemical etching and electrochemical methods. <i>Corrosion Science</i> , 2021, 188, 109544.	6.6	14
61	Characterization of Optimized TiO ₂ Nanotubes Morphology for Medical Implants: Biological Activity and Corrosion Resistance. <i>International Journal of Nanomedicine</i> , 2021, Volume 16, 667-682.	6.7	13
62	Nanoporous titanium obtained from a spinodally decomposed Ti alloy. <i>Microporous and Mesoporous Materials</i> , 2016, 222, 23-26.	4.4	11
63	A novel operando approach to analyze the structural evolution of metallic materials during friction with application of synchrotron radiation. <i>Acta Materialia</i> , 2020, 196, 355-369.	7.9	10
64	The effect of surface laser texturing on the corrosion performance of the biocompatible $\hat{2}$ -Ti12Mo6Zr2Fe alloy. <i>Surface and Coatings Technology</i> , 2021, 405, 126628.	4.8	10
65	Hydrogen storage properties of 2Mgâ€“Fe mixtures processed by hot extrusion: Influence of the extrusion ratio. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 15196-15203.	7.1	9
66	Structure and deformation behavior of Zrâ€“Cu thin films deposited on Kapton substrates. <i>Surface and Coatings Technology</i> , 2014, 239, 171-176.	4.8	9
67	Composites of copper and cast iron fabricated via the liquid: In the vicinity of the limits of strength in a non-deformed condition. <i>Materials Characterization</i> , 2017, 130, 260-269.	4.4	9
68	Ultrafine-Grained Ti-13Nb-13Zr Alloy Produced by Severe Plastic Deformation. <i>Materials Research</i> , 2017, 20, 404-410.	1.3	9
69	The influence of the O ₂ /C ₂ H ₂ ratio on the structure and properties of Fe ₆₆ Cr ₁₀ Nb ₅ B ₁₉ detonation coatings. <i>Materials Today: Proceedings</i> , 2020, 25, 384-386.	1.8	9
70	Microstructural evolution of Ti-6Al-7Nb alloy during high pressure torsion. <i>Materials Research</i> , 2012, 15, 792-795.	1.3	8
71	Structural characterization and magnetic properties of Al ₈₂ Fe ₁₆ TM ₂ (TM: Ti, Ni, Cu) alloys prepared by mechanical alloying. <i>Journal of Non-Crystalline Solids</i> , 2017, 468, 67-73.	3.1	8
72	Synthesis of $\hat{2}$ -Ti-Nb alloys from elemental powders by high-energy ball milling and their hydrogenation features. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18382-18391.	7.1	8

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73	Effect of titanium nitride (TiN) on the corrosion behavior of a supermartensitic stainless steel. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2019, 70, 28-36.	1.5	8
74	Outstanding Tensile Ductility in High Iron-Containing Al-Si-Cu Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 2703-2710.	2.2	8
75	Microstructure and Mechanical Properties of Composites Obtained by Spark Plasma Sintering of Al ₈₂ Fe ₆ Cr ₁₀ Nb ₅ B ₁₉ Metallic Glass Powder Mixtures. <i>Metals</i> , 2021, 11, 1457.	2.3	8
76	Assessment of anodization conditions and annealing temperature on the microstructure, elastic modulus, and wettability of Ti-40Nb alloy. <i>Thin Solid Films</i> , 2021, 737, 138949.	1.8	8
77	Severe Plastic Deformation and Additive Distribution in Mg-Fe to Improve Hydrogen Storage Properties. <i>Materials Research</i> , 2017, 20, 61-70.	1.3	8
78	Wear-Resistant Fe-Based Metallic Glass-Al ₂ O ₃ Composite Coatings Produced by Detonation Spraying. <i>Journal of Thermal Spray Technology</i> , 2022, 31, 1355-1365.	3.1	8
79	2Mg-Fe and 2Mg-Fe+5%C mixtures processed by hot extrusion: Influence of carbon on hydrogen sorption properties. <i>Journal of Alloys and Compounds</i> , 2011, 509, S464-S467.	5.5	7
80	Mg ₂ FeH ₆ -based nanocomposites with high capacity of hydrogen storage processed by reactive milling. <i>Materials Research</i> , 2012, 15, 229-235.	1.3	7
81	Thermomechanical controlled processing to achieve very fine grains in the ISO 5832-9 austenitic stainless steel biomaterial. <i>Materials Characterization</i> , 2017, 127, 153-160.	4.4	7
82	Hydrogen storage properties of 2Mg-Fe mixtures processed by hot extrusion at different temperatures. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 11493-11500.	7.1	7
83	Hydrogen desorption/absorption properties of the extensively cold rolled Ti-40Nb alloy. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20133-20144.	7.1	7
84	Anodic growth and pre-calcification on Ti-40Nb alloy: Effects on elastic modulus, electrochemical properties, and bioactivity. <i>Ceramics International</i> , 2022, 48, 27575-27589.	4.8	7
85	A synchrotron X-ray diffraction study of hydrogen storage and enhanced sorption kinetics in a mini-tank of Mg with crystalline and amorphous catalytic particle additions. <i>Journal of Alloys and Compounds</i> , 2012, 540, 57-61.	5.5	6
86	Novel micro-flat springs using the superior elastic properties of metallic glass foils. <i>Scripta Materialia</i> , 2017, 131, 84-88.	5.2	6
87	Crystallization Kinetics and Consolidation of Al ₈₂ La ₁₀ Fe ₄ Ni ₄ Glassy Alloy Powder by Spark Plasma Sintering. <i>Metals</i> , 2018, 8, 812.	2.3	6
88	An Overview of Thermally Sprayed Fe-Cr-Nb-B Metallic Glass Coatings: From the Alloy Development to the Coating's Performance Against Corrosion and Wear. <i>Journal of Thermal Spray Technology</i> , 2022, 31, 923-955.	3.1	6
89	Weight reduction of amorphous alloy core electrical transformers for aircraft applications. , 2016, , .		5
90	Understanding the Interdependence of Penetration Depth and Deformation on Nanoindentation of Nanoporous Silver. <i>Metals</i> , 2019, 9, 1346.	2.3	5

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91	Processing of Fe-Based Alloys by Detonation Spraying and Spark Plasma Sintering. Journal of Thermal Spray Technology, 2021, 30, 1692-1702.	3.1	5
92	Structural Features and Corrosion Resistance of Fe66Cr10Nb5B19 Metallic Glass Coatings Obtained by Detonation Spraying. Journal of Materials Engineering and Performance, 2022, 31, 622-630.	2.5	5
93	Hot Deformation Behavior of a Beta Metastable TMZF Alloy: Microstructural and Constitutive Phenomenological Analysis. Metals, 2021, 11, 1769.	2.3	5
94	Influence of deformation on the kinetics of phase transformation in a forging steel during warm working. Materials Research, 2004, 7, 247-253.	1.3	4
95	Crystallization of Fe83B17 amorphous alloy by electric pulses produced by a capacitor discharge. Applied Physics A: Materials Science and Processing, 2015, 120, 1565-1572.	2.3	4
96	Experimental and thermodynamic investigation of the microstructural evolution of a boron-rich Fe-Cr-Nb-B alloy. Journal of Alloys and Compounds, 2017, 713, 119-124.	5.5	4
97	Surface Plasma Nitriding of Beta-Titanium Alloy Bio-Material. Key Engineering Materials, 0, 813, 328-333.	0.4	4
98	The Influence of Salt fog Exposure on Corrosion Resistance of Detonation Coatings Fe66Cr10Nb5B19. Metal Working and Material Science, 2020, 22, 95-105.	0.3	4
99	Hydrogen Sorption Properties of the Complex Hydride Mg ₂ FeH ₆ Consolidated by HPT. Materials Science Forum, 2010, 667-669, 1053-1058.	0.3	3
100	Microstructure evolution of AA7050 Al alloy during Equal-Channel Angular Pressing. Materials Research, 2012, 15, 732-738.	1.3	3
101	Formation Routes of Nanocomposite Coatings in Detonation Spraying of Ti3SiC2-Cu Powders. Journal of Thermal Spray Technology, 2014, 23, 1116-1123.	3.1	3
102	Hot Consolidation of Partially Amorphous Cu-Ti Based Alloy: a Comparison Between Hot Extrusion and Hot Compaction by Sintering. Materials Research, 2015, 18, 448-452.	1.3	3
103	Effect of Processing Conditions on the Microstructure, Mechanical Properties, and Corrosion Behavior of Two Austenitic Stainless Steels for Bioimplant Applications. Metals, 2020, 10, 1311.	2.3	3
104	Electromechanical Processing of Bulk Metallic Glasses. Journal of Metastable and Nanocrystalline Materials, 2003, 15-16, 11-16.	0.1	2
105	2Mg-Fe Alloy Processed by Hot Extrusion: Influence of Particle Size and Extrusion Reduction Ratio on Hydrogenation Properties. Materials Science Forum, 0, 691, 3-9.	0.3	2
106	Consolidation of the Cu46Zr42Al7Y5 amorphous ribbons and powder alloy by hot extrusion. Materials Research, 2012, 15, 728-738.	1.3	2
107	Analysis of Recrystallization and Strain-Induced Precipitation on High Nb- and N-Bearing Austenitic Stainless Steel. Advanced Materials Research, 0, 922, 700-705.	0.3	2
108	New Criterion for Prediction of Amorphous Alloy Compositions: A Combination of Dense Packing of Spheres and the Lambda Criterion through the Coordination Number. Applied Mechanics and Materials, 2014, 698, 411-418.	0.2	2

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109	Fabrication of nanoporous copper surface by leaching of chill-zone Cu-Zr-Hf alloys. Scripta Materialia, 2015, 104, 64-66.	5.2	2
110	Structure, Properties and Texturing of Ti-Ta-Mo Alloys Produced by Non-Vacuum Electron Beam Surface Alloying of Ti. Applied Mechanics and Materials, 2015, 788, 230-236.	0.2	2
111	On the ternary eutectic reaction in the Fe 60 Cr 8 Nb 8 B 24 quaternary alloy. Journal of Alloys and Compounds, 2017, 707, 281-286.	5.5	2
112	Hydrogen storage properties of Mg-Fe mixtures processed by hot extrusion: Effect of ram speeds. International Journal of Hydrogen Energy, 2019, 44, 20203-20212.	7.1	2
113	Effect of hydrogen pick-up on the fatigue behavior of the β -type Ti-12Mo-6Zr-2Fe alloy with β -nanoprecipitation. Materials Letters, 2021, 282, 128740.	2.6	2
114	Microstructure Evolution during Warm Deformation of Low Carbon Steel with Dispersed Cementite. Materials Science Forum, 2007, 558-559, 505-510.	0.3	1
115	Hot Extrusion of Nanostructured Al Alloy Powder: Extrusion Ratio and Temperature Effect on the Microstructure and Mechanical Properties. Materials Science Forum, 0, 570, 91-96.	0.3	1
116	Processing and Simulation for Consolidation of Nanostructured Al-Cu Powder Alloys. Materials Science Forum, 0, 570, 97-102.	0.3	1
117	Physical properties of a natural lamellar aluminosilicate structure, rich in Fe. Journal of Magnetism and Magnetic Materials, 2012, 324, 2306-2309.	2.3	0
118	EXTRUSÃO A QUENTE DE LIGAS DE ALUMÍNIO NANOESTRUTURADAS EM PÓ: EFEITO DA PRECIPITAÇÃO NO CONTROLE MICROESTRUTURAL. Tecnologia Em Metalurgia E Materiais, 2010, 7, 6-11.	0.1	0
119	Materials Research: Ibero-american Journal of Materials. Materials Research, 2013, 16, 563-564.	1.3	0