Joaquin Ramirez-Rico

List of Publications by Year
in descending order

76 papers	1,646 citations	279487 23 h-index	329751 37 g-index
78 all docs	78 docs citations	78 times ranked	1937 citing authors

#	Article	IF	Citations
1	Effect of catalytic graphitization on the electrochemical behavior of wood derived carbons for use in supercapacitors. Journal of Power Sources, 2015, 278, 18-26.	4.0	101
2	Correlation of Structure and Performance of Hard Carbons as Anodes for Sodium Ion Batteries. Chemistry of Materials, 2019, 31, 7288-7299.	3.2	94
3	Organization pattern of nacre in Pteriidae (Bivalvia: Mollusca) explained by crystal competition. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 1329-1337.	1.2	92
4	Permeability and mechanical integrity of porous biomorphic SiC ceramics for application as hot-gas filters. Materials and Design, 2016, 107, 450-460.	3.3	85
5	Ironâ€Catalyzed Graphitic Carbon Materials from Biomass Resources as Anodes for Lithiumâ€Ion Batteries. ChemSusChem, 2018, 11, 2776-2787.	3.6	81
6	Iron-catalyzed graphitization for the synthesis of nanostructured graphitic carbons. Journal of Materials Chemistry A, 2022, 10, 4489-4516.	5.2	62
7	Chemical and Mechanical Consequences of Environmental Barrier Coating Exposure to Calciumâ€“Magnesiumâ€“Aluminosilicate. Journal of the American Ceramic Society, 2011, 94, s178.	1.9	61
8	An electrochemical evaluation of nitrogen-doped carbons as anodes for lithium ion batteries. Carbon, 2020, 164, 261-271.	5.4	53
9	Nacre and false nacre (foliated aragonite) in extant monoplacophorans (=Tryblidiida: Mollusca). Die Naturwissenschaften, 2009, 96, 111-122.	0.6	46
10	High-temperature plastic behaviour of Al2O3â€“Y3Al5O12 directionally solidified eutectics. Acta Materialia, 2006, 54, 3107-3116.	3.8	45
11	Characterization of porous graphitic monoliths from pyrolyzed wood. Journal of Materials Science, 2014, 49, 7688-7696.	1.7	41
12	Thermal conductivity of porous biomorphic SiC derived from wood precursors. Ceramics International, 2016, 42, 16220-16229.	2.3	41
13	Crystallographic reorganization of the calcitic prismatic layer of oysters. Journal of Structural Biology, 2009, 167, 261-270.	1.3	39
14	Performance trends in wall-flow diesel particulate filters: Comparative analysis of their filtration efficiency and pressure drop. Journal of Cleaner Production, 2020, 260, 120863.	4.6	38
15	Stress measurement using area detectors: a theoretical and experimental comparison of different methods in ferritic steel using a portable X-ray apparatus. Journal of Materials Science, 2016, 51, 5343-5355.	1.7	37
16	Thermal conductivity of Fe graphitized wood derived carbon. Materials and Design, 2016, 99, 528-534.	3.3	36
17	Structural Evolution in Iron-Catalyzed Graphitization of Hard Carbons. Chemistry of Materials, 2021, 33, 3087-3097.	3.2	36
18	Reactionâ€“formation mechanisms and microstructure evolution of biomorphic SiC. Journal of Materials Science, 2008, 43, 933-941.	1.7	35

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19	Precision and accuracy of stress measurement with a portable X-ray machine using an area detector. Journal of Applied Crystallography, 2017, 50, 131-144.	1.9	32
20	Biomorphic ceramics from wood-derived precursors. International Materials Reviews, 2017, 62, 465-485.	9.4	30
21	Electrochemical Energy Storage Applications of CVD Grown Niobium Oxide Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 21423-21430.	4.0	29
22	Biological strategy for the fabrication of highly ordered aragonite helices: the microstructure of the cavolinioidean gastropods. Scientific Reports, 2016, 6, 25989.	1.6	29
23	Fabrication, chemical etching, and compressive strength of porous biomimetic SiC for medical implants. Journal of Materials Research, 2008, 23, 3247-3254.	1.2	28
24	Crystallographic texture in Al2O3â€“ZrO2 (Y2O3) directionally solidified eutectics. Journal of the European Ceramic Society, 2008, 28, 2681-2686.	2.8	24
25	Interfacial characterization of silicon nitride/silicon nitride joints brazed using Cu-base active metal interlayers. Ceramics International, 2012, 38, 2793-2802.	2.3	23
26	New Bio-ceramization process applied to vegetable hierarchical structures for bone regeneration: an experimental model in sheep.. Tissue Engineering - Part A, 2014, 20, 131007215556003.	1.6	23
27	Performance of biomorphic Silicon Carbide as particulate filter in diesel boilers. Journal of Environmental Management, 2017, 203, 907-919.	3.8	22
28	Binder-free supercapacitor electrodes: Optimization of monolithic graphitized carbons by reflux acid treatment. Fuel Processing Technology, 2020, 199, 106279.	3.7	22
29	Porous Graphene-like Carbon from Fast Catalytic Decomposition of Biomass for Energy Storage Applications. ACS Omega, 2019, 4, 21446-21458.	1.6	21
30	Compressive strength degradation in ZrB2-based ultra-high temperature ceramic composites. Journal of the European Ceramic Society, 2011, 31, 1345-1352.	2.8	20
31	Performance improvement in olive stone's combustion from a previous carbonization transformation. Fuel, 2018, 228, 254-262.	3.4	19
32	Thermal conductivity of wood-derived graphite and copperâ€“graphite composites produced via electrodeposition. Composites Part A: Applied Science and Manufacturing, 2013, 53, 182-189.	3.8	17
33	Modeling Macro-Sized, High Aspect Ratio Through-Hole Filling by Multi-Component Additive-Assisted Copper Electrodeposition. Journal of the Electrochemical Society, 2013, 160, D3093-D3102.	1.3	16
34	Novel procedure for laboratory scale production of composite functional filaments for additive manufacturing. Materials Today Communications, 2020, 24, 101049.	0.9	16
35	Manganese Dioxide Supported on Porous Biomorphic Carbons as Hybrid Materials for Energy Storage Devices. ACS Applied Materials & Interfaces, 2016, 8, 30890-30898.	4.0	15
36	Crystallography of the Calcitic Foliated-Like and Seminacre Microstructures of the Brachiopod Novocrania. Crystal Growth and Design, 2009, 9, 2464-2469.	1.4	14

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37	In situ imaging and strain determination during fracture in a SiC/SiC ceramic matrix composite. Scripta Materialia, 2013, 69, 497-500.	2.6	14
38	Sliding wear resistance of porous biomorphic sic ceramics. International Journal of Refractory Metals and Hard Materials, 2016, 59, 26-31.	1.7	14
39	High-temperature thermal conductivity of biomorphic SiC/Si ceramics. Journal of Materials Science, 2017, 52, 10038-10046.	1.7	13
40	Fabrication and microstructure of directionally solidified SrCe1â^'xYxO3â^'Î´ (x=0.1, 0.2) high temperature proton conductors. Journal of the European Ceramic Society, 2006, 26, 3705-3710.	2.8	12
41	Electrical and galvanomagnetic properties of biocarbon preforms of white pine wood. Physics of the Solid State, 2009, 51, 2247-2251.	0.2	12
42	Residual stresses in Al2O3â€“ZrO2 (3mol.% Y2O3) directionally solidified eutectic ceramics as a function of temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 541, 61-66.	2.6	11
43	Environmentally Friendly Monolithic Highly-Porous Biocarbons as Binder-Free Supercapacitor Electrodes. Reviews on Advanced Materials Science, 2018, 55, 50-60.	1.4	10
44	Vegetable hierarchical structures as template for bone regeneration: New bioâ€ceramization process for the development of a bone scaffold applied to an experimental sheep model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 600-611.	1.6	10
45	Ceria-based catalytic coatings on biomorphic silicon carbide: A system for soot oxidation with enhanced properties. Chemical Engineering Journal, 2021, 415, 128959.	6.6	9
46	Monolithic supports based on biomorphic SiC for the catalytic combustion of hydrogen. RSC Advances, 2016, 6, 66373-66384.	1.7	8
47	Effect of oxidation on the compressive strength of sintered SiC-fiber bonded ceramics. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 394-399.	2.6	7
48	Effect of carbonization temperature on the microplasticity of wood-derived biocarbon. Physics of the Solid State, 2014, 56, 538-545.	0.2	7
49	Sliding wear resistance of biomorphic SiC ceramics. International Journal of Refractory Metals and Hard Materials, 2015, 49, 327-333.	1.7	7
50	High-temperature mechanical properties of porous NaMgF3 derived from directionally solidified NaMgF3â€“NaF eutectics. Journal of the European Ceramic Society, 2008, 28, 2451-2457.	2.8	6
51	Biomimetic Mineralization of Calcium Phosphate on a Functionalized Porous Silicon Carbide Biomaterial. ChemPlusChem, 2012, 77, 694-699.	1.3	6
52	Structure-mediated transition in the behavior of elastic and inelastic properties of beach tree bio-carbon. Physics of the Solid State, 2013, 55, 1884-1891.	0.2	6
53	Specific features of the electrical properties in partially graphitized porous biocarbons of beech wood. Physics of the Solid State, 2015, 57, 1746-1751.	0.2	6
54	Sliding wear resistance of sintered SiC-fiber bonded ceramics. International Journal of Refractory Metals and Hard Materials, 2015, 49, 232-239.	1.7	6

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55	Flame confinement in biomass combustion systems for particles abatement. Energy Conversion and Management, 2022, 264, 115706.	4.4	6
56	Electrical properties of the SiC/Si composite and the biomorphic SiC ceramic fabricated from spanish beech wood. Physics of the Solid State, 2008, 50, 1819-1825.	0.2	5
57	Thermal conductivity of high-porosity heavily doped biomorphic silicon carbide prepared from sapele wood biocarbon. Physics of the Solid State, 2012, 54, 1732-1739.	0.2	5
58	Microstructure, elastic and inelastic properties of partially graphitized biomorphic carbons. Physics of the Solid State, 2015, 57, 586-591.	0.2	5
59	Blocking of grain reorientation in self-doped alumina materials. Scripta Materialia, 2011, 64, 517-520.	2.6	4
60	Thermal conductivity at the amorphous-nanocrystalline phase transition in beech wood biocarbon. Physics of the Solid State, 2014, 56, 1071-1080.	0.2	4
61	Microstructure and thermal conductivity of Si-Al-C-O fiber bonded ceramics joined to refractory metals. Materials Letters, 2020, 276, 128203.	1.3	4
62	Electrical resistivity and thermal conductivity of SiC/Si ecoceramics prepared from sapele wood biocarbon. Physics of the Solid State, 2012, 54, 2132-2141.	0.2	3
63	Strength and microplasticity of biocarbons prepared by carbonization in the presence of a catalyst. Physics of the Solid State, 2016, 58, 703-710.	0.2	3
64	Microestructura y comportamiento plÃ¡stico de perovsquitas conductoras protÃ³nicas de alta temperatura. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2005, 44, 347-351.	0.9	3
65	Heat capacity of Bio-SiC and SiC/Si ecoceramics prepared from white eucalyptus, beech, and sapele tree wood. Physics of the Solid State, 2013, 55, 454-460.	0.2	2
66	Thermopower of Bio-SiC and SiC/Si ecoceramics prepared from sapele tree wood. Physics of the Solid State, 2013, 55, 54-59.	0.2	2
67	High-Temperature Mechanical Behavior of Hard Ceramics. , 2014, , 321-343.		2
68	Thermal conductivity of partially graphitized biocarbon obtained by carbonization of medium-density fiberboard in the presence of a Ni-based catalyst. Physics of the Solid State, 2016, 58, 208-214.	0.2	2
69	Features of electrical properties of BE-C(Fe) biocarbons carbonized in the presence of an Fe-containing catalyst. Physics of the Solid State, 2017, 59, 703-709.	0.2	2
70	High temperature mechanical properties of polycrystalline Y2SiO5. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2022, 61, S60-S68.	0.9	2
71	Microstructure, elastic, and inelastic properties of biomorphic carbons carbonized using a Fe-containing catalyst. Physics of the Solid State, 2016, 58, 2481-2487.	0.2	1
72	High temperature compressive strength and creep behavior of Si Ti C O fiber-bonded ceramics. Journal of the European Ceramic Society, 2017, 37, 4442-4448.	2.8	1

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73	High Temperature Creep Deformation of Al2O3-Based Eutectic Ceramics Grown by the Laser Heated Float Zone Method. Ceramic Engineering and Science Proceedings, 0, , 101-112.	0.1	1
74	Strength and thermal shock resistance of fiberâ€bonded Siâ€Alâ€Câ€O and Siâ€Tiâ€Câ€O ceramics. International Journal of Applied Ceramic Technology, 2022, 19, 1126-1135.	1.1	1
75	Iron Catalysis in Metal-Ion Batteries. Catalytic Science Series, 2021, , 253-297.	0.6	0
76	Porous Biomorphic SiC for Medical Implants Processed from Natural and Artificial Precursors. Ceramic Engineering and Science Proceedings, 0, , 203-214.	0.1	0