Carmen Baudin

List of Publications by Year
in descending order

125 papers	2,565 citations	172457 29 h-index	254184 43 g-index
132 all docs	132 docs citations	132 times ranked	1912 citing authors

#	Article	IF	Citations
1	Extraction of Lanthanum Oxide from Different Spent Fluid Catalytic Cracking Catalysts by Nitric Acid Leaching and Cyanex 923 Solvent Extraction Methods. Metals, 2022, 12, 378.	2.3	6
2	Effect of lanthanum content on physicochemical properties and thermal evolution of spent and beneficiated spent FCC catalysts. Ceramics International, 2022, 48, 17691-17702.	4.8	6
3	Thermal Shock Behavior of Ceramics: Fundamentals and Thermal Shock Resistance Parameters. , 2021, , 867-878.		0
4	Alumina, Structure and Properties. , 2021, , 25-46.		2
5	Property characterization and numerical modelling of the thermal conductivity of CaZrO3-MgO ceramic composites. Journal of the European Ceramic Society, 2021, 41, 7241-7252.	5.7	9
6	Reaction Sintering. , 2021, , 278-285.		1
7	Aluminum Titanate, Structure and Properties. , 2021, , 76-92.		4
8	The main role of the ZrO2â€“MgOâ€“CaO and ZrO2â€“MgOâ€“CaOâ€“SiO2 systems in the field refractories. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2021, , .	1.9	2
9	Effect of Al2TiO5 Content and Sintering Temperature on the Microstructure and Residual Stress of Al2O3â€“Al2TiO5 Ceramic Composites. Materials, 2021, 14, 7624.	2.9	8
10	Microstructural design of ceramics for bone regeneration. Journal of the European Ceramic Society, 2020, 40, 2555-2565.	5.7	5
11	Diopsideâ€tricalcium phosphate bioactive ceramics for osteogenic differentiation of human adipose stem cells. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 819-833.	3.4	4
12	Modelling of elastic modulus of a biphasic ceramic microstructure using 3D representative volume elements. Journal of the European Ceramic Society, 2020, 40, 901-910.	5.7	7
13	Modelling of elastic modulus of CaZrO3-MgO composites using isotropic elastic and anisotropic models. Journal of the European Ceramic Society, 2020, 40, 5882-5890.	5.7	5
14	The potential of La-containing spent catalysts from fluid catalytic cracking as feedstock of mullite based refractories. Journal of the European Ceramic Society, 2020, 40, 6162-6170.	5.7	8
15	Ceramic materials characterization using miniature mechanical tests: comparison between B3B and SPT tests. Journal of the European Ceramic Society, 2019, 39, 4113-4121.	5.7	10
16	Effect of graphene on setting and mechanical behaviour of tricalcium phosphate bioactive cements. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 89, 33-47.	3.1	18
17	Youngâ€™s modulus and hardness of multiphase CaZrO3-MgO ceramics by micro and nanoindentation. Journal of the European Ceramic Society, 2018, 38, 2194-2201.	5.7	34
18	Alumina Porous Ceramics Obtained by Freeze Casting: Structure and Mechanical Behaviour under Compression. Ceramics, 2018, 1, 83-97.	2.6	6

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19	The main role of silicaâ€"Based cement free binders on the microstructural evolution and mechanical behaviour of high alumina castables. Journal of the European Ceramic Society, 2018, 38, 4137-4148.	5.7	12
20	Residual stress and diffraction line-broadening analysis of Al2O3/Y-TZP ceramic composites by neutron diffraction measurement. International Journal of Refractory Metals and Hard Materials, 2017, 64, 122-134.	3.8	13
21	In vitro study of the proliferation and growth of human fetal osteoblasts on Mg and Si coâ€substituted tricalcium phosphate ceramics. Journal of Biomedical Materials Research - Part A, 2017, 105, 2266-2275.	4.0	13
22	Mechanical properties of solid oxide fuel cell glass-ceramic sealants in the system BaO/SrO-MgO-B2O3-SiO2. Journal of the European Ceramic Society, 2017, 37, 3579-3594.	5.7	48
23	Influence of porosity on the mechanical behaviour of single phase Î²-TCP ceramics. Ceramics International, 2017, 43, 6048-6053.	4.8	7
24	Sliding wear of CaZrO3-MgO composites against ZrO2 and steel. Journal of the European Ceramic Society, 2017, 37, 297-303.	5.7	13
25	CaZrO3â€"MgO structural ceramics obtained by reaction sintering of dolomite-zirconia mixtures. Journal of the European Ceramic Society, 2016, 36, 2611-2626.	5.7	28
26	Processing and in vitro bioactivity of a Î²-Ca3(PO4)2â€"CaMg(SiO3)2 ceramic with the eutectic composition. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2016, 55, 1-12.	1.9	16
27	Determination of mechanical properties of Al2O3/Y-TZP ceramic composites: Influence of testing method and residual stresses. Ceramics International, 2016, 42, 18700-18710.	4.8	33
28	Influence of phase composition on the sliding wear of composites in the system CaZrO3â€"MgOâ€"ZrO2 against ZrO2 and steel. Theoretical and Applied Fracture Mechanics, 2016, 85, 125-133.	4.7	3
29	Neutron diffraction residual stress analysis of Al2O3/Y-TZP ceramic composites. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2016, 55, 13-23.	1.9	7
30	Influence of microstructural characteristics on fracture toughness of refractory materials. Journal of the European Ceramic Society, 2015, 35, 1955-1970.	5.7	16
31	Processing, nanoindentation and scratch testing of alumina-coated YTZP. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2015, 54, 133-141.	1.9	4
32	Nurseâ€²s Aâ€Phase: Synthesis and Characterization in the Binary System Ca₂SiO₄â€"Ca₃(<scp>PO</scp>₄)₂. Journal of the American Ceramic Society, 2015, 98, 3042-3046.	3.8	16
33	Fracture strength and fracture toughness of zirconium titanateâ€"zirconia bulk composite materials. Journal of the European Ceramic Society, 2015, 35, 277-283.	5.7	5
34	Processing of Alumina and Corresponding Composites. , 2014, , 31-72.		7
35	Improved resistance of alumina to mild wear by aluminium titanate additions. Journal of the European Ceramic Society, 2014, 34, 69-80.	5.7	9
36	Effect of Mg and Si co-substitution on microstructure and strength of tricalcium phosphate ceramics. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 30, 1-15.	3.1	32

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37	Residual strain scanning of alumina-based ceramic composites by neutron diffraction. Journal of Physics: Conference Series, 2014, 549, 012027.	0.4	0
38	Elastic behaviour of zirconium titanate-zirconia bulk composite materials at room and high temperature. Journal of the European Ceramic Society, 2013, 33, 3195-3200.	5.7	8
39	Nanoindentation of Al2O3/Al2TiO5 composites: Small-scale mechanical properties of Al2TiO5 as reinforcement phase. Journal of the European Ceramic Society, 2012, 32, 3723-3731.	5.7	21
40	Influence of experimental variables on fracture toughness determined on SEVNB in three points bending. Mullite a case study. Journal of the European Ceramic Society, 2012, 32, 4241-4248.	5.7	10
41	Elastic behaviour of zirconium titanate bulk material at room and high temperature. Journal of the European Ceramic Society, 2012, 32, 4083-4089.	5.7	12
42	Structural characterization of bulk ZrTiO4 and its potential for thermal shock applications. Journal of the European Ceramic Society, 2012, 32, 299-306.	5.7	36
43	Reaction sintered zirconium titanateâ€“zirconia bulk materials from 3Y2O3-stabilized zirconia and TiO2. Phase composition and their potential for thermal shock applications. Journal of the European Ceramic Society, 2012, 32, 1205-1211.	5.7	10
44	Controlled Fracture Test for Brittle Ceramics. Journal of Strain Analysis for Engineering Design, 2011, 46, 27-32.	1.8	5
45	Reaction sintering of colloidal processed mixtures of sub-micrometric alumina and nano-titania. Ceramics International, 2011, 37, 1085-1092.	4.8	9
46	MgOâ€“CaZrO3-based refractories for cement kilns. Journal of the European Ceramic Society, 2011, 31, 61-74.	5.7	32
47	Improved wear behaviour of aluminaâ€“aluminium titanate laminates with low residual stresses and large grained interfaces. Journal of the European Ceramic Society, 2011, 31, 475-483.	5.7	3
48	Dynamic corrosion of Al2O3â€“ZrO2â€“SiO2 and Cr2O3-containing refractories by molten frits. Part I: Macroscopic analysis. Journal of the European Ceramic Society, 2011, 31, 697-703.	5.7	17
49	Dynamic corrosion of Al2O3â€“ZrO2â€“SiO2 and Cr2O3-containing refractories by molten frits. Part II: Microstructural study. Journal of the European Ceramic Society, 2011, 31, 705-714.	5.7	21
50	Titanato de circonio: estabilidad termodinÃ¡mica y expansiÃ³n tÃ©rmica. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2011, 50, 169-178.	1.9	10
51	Processing of alumina-coated tetragonal zirconia materials and their response to sliding wear. Ceramics International, 2010, 36, 1545-1552.	4.8	9
52	Phase evolution in reaction sintered zirconium titanate based materials. Journal of the European Ceramic Society, 2010, 30, 981-991.	5.7	15
53	Effect of mullite additions on the fracture mode of alumina. Journal of the European Ceramic Society, 2010, 30, 857-863.	5.7	28
54	Crack mouth opening displacement controlled fracture tests of brittle ceramics. Journal of the European Ceramic Society, 2010, 30, 3297-3302.	5.7	12

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55	Synthesis of monoclinic Celsian from Coal Fly Ash by using a one-step solid-state reaction process. Ceramics International, 2010, 36, 661-672.	4.8	35
56	Work of fracture of a composite resin: Fractureâ€toughening mechanisms. Journal of Biomedical Materials Research - Part A, 2009, 89A, 751-758.	4.0	21
57	Indentation Damage and Residual Stress Field in Aluminaâ€Y₂O₃â€Stabilized Zirconia Composites. Journal of the American Ceramic Society, 2009, 92, 152-160.	3.8	17
58	Sandwich materials formed by thick alumina tapes and thin-layered aluminaâ€“aluminium titanate structures shaped by EPD. Journal of the European Ceramic Society, 2009, 29, 1083-1092.	5.7	23
59	Thermal expansion of zirconiaâ€“zirconium titanate materials obtained by slip casting of mixtures of Y-TZPâ€“TiO2. Journal of the European Ceramic Society, 2009, 29, 3219-3225.	5.7	14
60	Design and processing of a ceramic laminate with high toughness and strong interfaces. Composites Part A: Applied Science and Manufacturing, 2009, 40, 137-143.	7.6	22
61	Fracture behaviour of microcrack-free aluminaâ€“aluminium titanate ceramics with second phase nanoparticles at alumina grain boundaries. Journal of the European Ceramic Society, 2008, 28, 1961-1971.	5.7	41
62	Reduced strength degradation of aluminaâ€“aluminium titanate composite subjected to low-velocity impact loading. Journal of the European Ceramic Society, 2008, 28, 2923-2931.	5.7	7
63	Non-destructive characterisation of alumina/aluminium titanate composites using a micromechanical model and ultrasonic determinations. Ceramics International, 2008, 34, 181-188.	4.8	21
64	Non-destructive characterisation of alumina/aluminium titanate composites using a micromechanical model and ultrasonic determinations. Ceramics International, 2008, 34, 189-195.	4.8	5
65	Synthesis of Zirconium Titanateâ€Based Materials by Colloidal Filtration and Reaction Sintering. International Journal of Applied Ceramic Technology, 2008, 5, 394-400.	2.1	13
66	Forming of Ceramic Laminates Comprising Thin Layers of a Few Particles. Journal of the American Ceramic Society, 2008, 91, 2124-2129.	3.8	11
67	Flaw Tolerant Ceramic Laminates with Negligible Residual Stresses between Layers. Key Engineering Materials, 2007, 333, 17-26.	0.4	8
68	Laminated Ceramic Structures within Alumina / YTZP System Obtained by Low Pressure Joining. Key Engineering Materials, 2007, 333, 219-222.	0.4	3
69	Assessment of natural and synthetic wollastonite as source for bioceramics preparation. Journal of Biomedical Materials Research - Part A, 2007, 83A, 484-495.	4.0	31
70	Tape casting of Y-TZP with low binder content. Ceramics International, 2007, 33, 1099-1103.	4.8	14
71	High-temperature mechanical behaviour of flaw tolerant aluminaâ€“zirconia multilayered ceramics. Acta Materialia, 2007, 55, 4891-4901.	7.9	43
72	Aluminaâ€“zirconia layered ceramics fabricated by stacking water processed green ceramic tapes. Journal of the European Ceramic Society, 2007, 27, 1389-1394.	5.7	31

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73	Threshold strength evaluation on an Al2O3â€“ZrO2 multilayered system. Journal of the European Ceramic Society, 2007, 27, 1443-1448.	5.7	70
74	Processing optimisation and fracture behaviour of layered ceramic composites with highly compressive layers. Composites Science and Technology, 2007, 67, 1930-1938.	7.8	73
75	Layered materials with high strength and flaw tolerance based on alumina and aluminium titanate. Journal of the European Ceramic Society, 2007, 27, 1455-1462.	5.7	34
76	Instrumented Vickers microindentation of alumina-based materials. Journal of Materials Research, 2006, 21, 161-173.	2.6	19
77	Strengthening at high temperatures by precipitates in Feâ€“Alâ€“Nb alloys. Intermetallics, 2006, 14, 1204-1207.	3.9	51
78	Fracture behaviour of an Al₂O₃â€“ZrO₂ multiâ€layered ceramic with residual stresses due to phase transformations*. Fatigue and Fracture of Engineering Materials and Structures, 2006, 29, 71-78.	3.4	31
79	Mechanical behaviour of directionally solidified alumina/aluminium titanate ceramics. Acta Materialia, 2006, 54, 3835-3841.	7.9	26
80	Residual stresses, strength and toughness of laminates with different layer thickness ratios. Acta Materialia, 2006, 54, 4745-4757.	7.9	119
81	Multilayer coatings with improved reliability produced by aqueous electrophoretic deposition. Journal of the European Ceramic Society, 2006, 26, 27-36.	5.7	29
82	Al2O3/Y-TZP and Y-TZP materials fabricated by stacking layers obtained by aqueous tape casting. Journal of the European Ceramic Society, 2006, 26, 1489-1496.	5.7	25
83	Piezo-spectroscopic characterization of alumina-aluminium titanate laminates. Journal of the European Ceramic Society, 2006, 26, 2699-2705.	5.7	11
84	Piezo-spectroscopic characterization of alumina-zirconia layered composites. Journal of Materials Science, 2006, 41, 3781-3785.	3.7	1
85	In situ developed laminates with large microstructural differences between layers of similar composition. Journal of Materials Science, 2006, 41, 3695-3700.	3.7	7
86	Processing of Al2O3/Y-TZP laminates from water-based cast tapes. Composites Part B: Engineering, 2006, 37, 499-508.	12.0	24
87	Neutron diffraction investigation for possible anisotropy within monolithic Al2O3/Y-TZP composites fabricated by stacking together cast tapes. Scripta Materialia, 2006, 54, 1133-1137.	5.2	10
88	Joining green ceramic tapes made from water-based slurries by applying low pressures at ambient temperature. Journal of the European Ceramic Society, 2005, 25, 3403-3411.	5.7	36
89	Strength Analysis of Self-Supported Films Produced by Aqueous Electrophoretic Deposition. Journal of the American Ceramic Society, 2005, 88, 2645-2648.	3.8	11
90	Design and processing of Al2O3â€“Al2TiO5 layered structures. Journal of the European Ceramic Society, 2005, 25, 847-856.	5.7	31

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91	Fracture Mechanisms in Laminates in the Alumina - Titania System. Key Engineering Materials, 2005, 290, 208-213.	0.4	1
92	Failure Mechanisms in Directionally Solidified Alumina-Titania Composites. Key Engineering Materials, 2005, 290, 199-202.	0.4	8
93	Fracture of Monoliths Fabricated by Stacking Water Processed Green Ceramic Tapes. Key Engineering Materials, 2005, 290, 203-207.	0.4	1
94	Gelcasting of Dense Alumina Bodies Using Concentrated Agarose Gels. Key Engineering Materials, 2004, 264-268, 193-196.	0.4	0
95	Colloidal Processing of Laminates in the System Alumina â€“ Titania. Key Engineering Materials, 2004, 264-268, 61-64.	0.4	3
96	Influence of Chemical Reactions in Magnesia-Graphite Refractories: II, Effects of Aluminum and Graphite Contents in Generic Products. Journal of the American Ceramic Society, 2004, 82, 3539-3548.	3.8	25
97	Improvement in the thermal shock resistance of alumina through the addition of submicron-sized aluminium nitride particles. Journal of the European Ceramic Society, 2004, 24, 2293-2301.	5.7	40
98	Statistical analysis of the fracture behaviour of porous ceramic Raschig rings. Journal of the European Ceramic Society, 2004, 24, 589-594.	5.7	46
99	Relationships between phase constitution and mechanical behaviour in MgOâ€“CaZrO3â€“calcium silicate materials. Journal of the European Ceramic Society, 2004, 24, 669-679.	5.7	24
100	Improved Green Strength of Ceramics Through Aqueous Gelcasting. Advanced Engineering Materials, 2004, 6, 672-676.	3.5	22
101	Reaction sintered Al2O3/Al2TiO5 microcrack-free composites obtained by colloidal filtration. Journal of the European Ceramic Society, 2004, 24, 2785-2791.	5.7	43
102	The high-temperature strength of some Fe3Al alloys. Acta Materialia, 2004, 52, 2827-2836.	7.9	94
103	Influence of the Processing Route on Reliability of Raschig Rings for Wastewater Treatments. Key Engineering Materials, 2004, 264-268, 2437-2440.	0.4	3
104	Improved green properties of gelcast alumina through multiple synergistic interaction of polysaccharides. Journal of the European Ceramic Society, 2003, 23, 1785-1793.	5.7	27
105	Influence of a Dispersion of Aluminum Titanate Particles of Controlled Size on the Thermal Shock Resistance of Alumina. Journal of the American Ceramic Society, 2003, 86, 846-850.	3.8	49
106	Alumina-Aluminium Titanate Composites with Improved Thermal Shock Resistance. Key Engineering Materials, 2002, 206-213, 1041-1044.	0.4	0
107	Influence of Gelling Additives in the Green Properties of Al₂O₃ Bodies Obtained by Aqueous Gel Casting. Key Engineering Materials, 2002, 206-213, 413-416.	0.4	0
108	Thermogelling polysaccharides for aqueous gelcastingâ€”part III: mechanical and microstructural characterization of green alumina bodies. Journal of the European Ceramic Society, 2002, 22, 2223-2230.	5.7	31

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109	Microstructural and microchemical analysis of thecreep damage in mullite tested in flexure. Journal of the European Ceramic Society, 2002, 22, 2647-2655.	5.7	8
110	Creep damage in different 3Al2O3Â·2SiO2 mullites tested in 4-point bending. Journal of the European Ceramic Society, 2001, 21, 2243-2251.	5.7	10
111	Sub-micron sized Al2TiO5 powders prepared by high-energy ball milling. Journal of Materials Science, 2001, 36, 5105-5113.	3.7	11
112	Influence of mullite additions on thermal shock resistance of dense alumina materials. Part 2: Thermal properties and thermal shock behaviour. Advances in Applied Ceramics, 2001, 100, 246-250.	0.4	6
113	Relaciones microestructura-comportamiento mecÃ¡nico en materiales de alÃºmina-hexaluminato cÃ¡lcico. Revista De Metalurgia, 2001, 37, 155-160.	0.5	0
114	Fracture behaviour of aluminaâ€“calcium hexaluminate composites obtained by colloidal processing. Journal of the European Ceramic Society, 2000, 20, 2575-2583.	5.7	43
115	Influence of Chemical Reactions in Magnesiaâ€Graphite Refractories: I, Effects on Texture and Highâ€Temperature Mechanical Properties. Journal of the American Ceramic Society, 1999, 82, 3529-3538.	3.8	48
116	Influence of Thermal Aging on Microstructural Development of Mullite Containing Alkalis. Journal of the American Ceramic Society, 1998, 81, 2741-2745.	3.8	17
117	Fracture mechanisms in a stoichiometric 3Al2O32SiO2 mullite. Journal of Materials Science, 1997, 32, 2077-2086.	3.7	8
118	Mechanical properties of mullite materials. Journal of the European Ceramic Society, 1996, 16, 217-224.	5.7	99
119	High-Temperature Mechanical Behavior of Stoichiometric Magnesium Spinel. Journal of the American Ceramic Society, 1995, 78, 1857-1862.	3.8	185
120	Processing and sintering of a 3 : 2 alumina silica gel. Ceramics International, 1992, 18, 365-372.	4.8	9
121	Oxidation of Mullite-Zirconia-Alumina-Silicon Carbide Composites. Journal of the American Ceramic Society, 1990, 73, 1417-1420.	3.8	12
122	Fractographic and acoustic emission of mullite-alumina-zirconia composites prepared by reaction sintering. Journal of Materials Science, 1987, 22, 4398-4402.	3.7	8
123	Influence of Titanium Dioxide on the Sintering and Microstructural Evolution of Mullite. Journal of the American Ceramic Society, 1984, 67, C-134.	3.8	6
124	Solid solution of TiO2 in mullite. Journal of Materials Science Letters, 1983, 2, 185-187.	0.5	19
125	Residual Strain Profiles in Alumina-Zirconia Ceramic Composites. Materials Science Forum, 0, 652, 57-62.	0.3	0