Amparo Borrell

List of Publications by Year
in descending order

86 papers	1,390 citations	304368 22 h-index	395343 33 g-index
88 all docs	88 docs citations	88 times ranked	1308 citing authors

#	Article	IF	Citations
1	Fabrication of full density near-nanostructured cemented carbides by combination of VC/Cr3C2 addition and consolidation by SPS and HIP technologies. International Journal of Refractory Metals and Hard Materials, 2011, 29, 202-208.	1.7	64
2	Mechanical properties and microstructural evolution of aluminaâ€“zirconia nanocomposites by microwave sintering. Ceramics International, 2014, 40, 11291-11297.	2.3	64
3	Microwave-assisted solution synthesis, microwave sintering and magnetic properties of cobalt ferrite. Journal of the European Ceramic Society, 2018, 38, 2360-2368.	2.8	63
4	Microstructural control of ultrafine and nanocrystalline WCâ€“12Coâ€“VC/Cr3C2 mixture by spark plasma sintering. Ceramics International, 2011, 37, 1139-1142.	2.3	59
5	Thermal behaviour of multilayer and functionally-graded YSZ/Gd2Zr2O7 coatings. Ceramics International, 2017, 43, 4048-4054.	2.3	56
6	Microwave Sintering of Zirconia Materials: Mechanical and Microstructural Properties. International Journal of Applied Ceramic Technology, 2013, 10, 313-320.	1.1	52
7	Effect of microwave sintering on microstructure and mechanical properties in Y-TZP materials used for dental applications. Ceramics International, 2015, 41, 7125-7132.	2.3	51
8	Alumina reinforced eucryptite ceramics: Very low thermal expansion material with improved mechanical properties. Journal of the European Ceramic Society, 2011, 31, 1641-1648.	2.8	42
9	Improvement of microstructural properties of 3Y-TZP materials by conventional and non-conventional sintering techniques. Ceramics International, 2012, 38, 39-43.	2.3	38
10	Effect of particle size distribution of suspension feedstock on the microstructure and mechanical properties of suspension plasma spraying YSZ coatings. Surface and Coatings Technology, 2015, 268, 293-297.	2.2	38
11	Effect of CNFs content on the tribological behaviour of spark plasma sintering ceramicâ€“CNFs composites. Wear, 2012, 274-275, 94-99.	1.5	33
12	Correlation of thermal conductivity of suspension plasma sprayed yttria stabilized zirconia coatings with some microstructural effects. Materials Letters, 2013, 107, 370-373.	1.3	33
13	Fabrication of near-zero thermal expansion of fully dense Î²-eucryptite ceramics by microwave sintering. Ceramics International, 2014, 40, 935-941.	2.3	32
14	Microstructure and mechanical properties of plasma spraying coatings from YSZ feedstocks comprising nano- and submicron-sized particles. Ceramics International, 2015, 41, 4108-4117.	2.3	30
15	Enhanced properties of aluminaâ€“aluminium titanate composites obtained by spark plasma reaction-sintering of slip cast green bodies. Composites Part B: Engineering, 2013, 47, 255-259.	5.9	29
16	Sliding wear behavior of WCâ€“Coâ€“Cr3C2â€“VC composites fabricated by conventional and non-conventional techniques. Wear, 2013, 307, 60-67.	1.5	28
17	Properties of LZS/nanoAl2O3 glass-ceramic composites. Journal of Alloys and Compounds, 2017, 710, 567-574.	2.8	28
18	Tribological and wear behaviour of alumina toughened zirconia nanocomposites obtained by pressureless rapid microwave sintering. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 101, 103415.	1.5	28

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19	Al2O3-3YTZP-Graphene multilayers produced by tape casting and spark plasma sintering. Journal of the European Ceramic Society, 2014, 34, 2427-2434.	2.8	27
20	Effect of sintering technology in Î²-eucryptite ceramics: Influence on fatigue life and effect of microcracks. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 668-674.	2.6	27
21	Colloidal processing of fully stabilized zirconia laminates comprising graphene oxide-enriched layers. Journal of the European Ceramic Society, 2016, 36, 1797-1804.	2.8	26
22	Effects of microwave sintering in aging resistance of zirconia-based ceramics. Chemical Engineering and Processing: Process Intensification, 2017, 122, 404-412.	1.8	24
23	Fabrication of C/SiC composites by combining liquid infiltration process and spark plasma sintering technique. Ceramics International, 2012, 38, 2171-2175.	2.3	23
24	Microwave, Spark Plasma and Conventional Sintering to Obtain Controlled Thermal Expansion Î²â€Eucryptite Materials. International Journal of Applied Ceramic Technology, 2015, 12, E187.	1.1	23
25	Surface coating on carbon nanofibers with alumina precursor by different synthesis routes. Composites Science and Technology, 2011, 71, 18-22.	3.8	21
26	Microstructural design for mechanical and electrical properties of spark plasma sintered Al2O3â€“SiC nanocomposites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 693-698.	2.6	21
27	Spark plasma sintering of TiyNb1â["]yCxN1â["]x monolithic ceramics obtained by mechanically induced self-sustaining reaction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 173-179.	2.6	20
28	Fast route to obtain Al2O3-based nanocomposites employing graphene oxide: Synthesis and sintering. Materials Research Bulletin, 2015, 64, 245-251.	2.7	19
29	Alumina-zirconia coatings obtained by suspension plasma spraying from highly concentrated aqueous suspensions. Surface and Coatings Technology, 2016, 307, 713-719.	2.2	19
30	Microstructure and mechanical effects of spark plasma sintering in alumina monolithic ceramics. Scripta Materialia, 2013, 68, 603-606.	2.6	18
31	Microstructure and photocatalytic activity of APS coatings obtained from different TIO2 nanopowders. Surface and Coatings Technology, 2013, 220, 179-186.	2.2	17
32	Microstructure and mechanical properties of 5.8â€¯GHz microwave-sintered ZrO2/Al2O3 ceramics. Ceramics International, 2019, 45, 18059-18064.	2.3	16
33	Effect of graphene and CNFs addition on the mechanical and electrical properties of dense alumina-toughened zirconia composites. Ceramics International, 2016, 42, 1105-1113.	2.3	15
34	Impact of microwave processing on porcelain microstructure. Ceramics International, 2017, 43, 13765-13771.	2.3	15
35	Microwave Technique: A Powerful Tool for Sintering Ceramic Materials. Current Nanoscience, 2014, 10, 32-35.	0.7	15
36	High density carbon materials obtained at relatively low temperature by spark plasma sintering of carbon nanofibers. International Journal of Materials Research, 2010, 101, 112-116.	0.1	14

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37	Improvement of Carbon Nanofibers/ZrO₂ Composites Properties with a Zirconia Nanocoating on Carbon Nanofibers by Solâ€“Gel Method. Journal of the American Ceramic Society, 2011, 94, 2048-2052.	1.9	14
38	Effect of reinforcement NbC phase on the mechanical properties of Al2O3-NbC nanocomposites obtained by spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2017, 64, 255-260.	1.7	14
39	Advanced Ceramic Materials Sintered by Microwave Technology. , 2018, , .		14
40	Spark Plasma Sintering of Ultrafine TiC_{<i>x</i>}N_{1âˆ’<i>x</i>} Powders Synthesized by a Mechanically Induced Selfâ€Sustaining Reaction. Journal of the American Ceramic Society, 2010, 93, 2252-2256.	1.9	13
41	Hydrothermal Degradation Behavior of Yâ€TZP Ceramics Sintered by Nonconventional Microwave Technology. Journal of the American Ceramic Society, 2015, 98, 3680-3689.	1.9	13
42	Sliding wear behavior of Al2O3-NbC composites obtained by conventional and nonconventional techniques. Tribology International, 2017, 110, 216-221.	3.0	13
43	Lithium aluminosilicate reinforced with carbon nanofiber and alumina for controlled-thermal-expansion materials. Science and Technology of Advanced Materials, 2012, 13, 015007.	2.8	12
44	Bulk TiCxN1âˆ’xâ€“15%Co cermets obtained by direct spark plasma sintering of mechanochemical synthesized powders. Materials Research Bulletin, 2012, 47, 4487-4490.	2.7	12
45	Dielectric, mechanical and thermal properties of ZrO2â€“TiO2 materials obtained by microwave sintering at low temperature. Ceramics International, 2021, 47, 27334-27341.	2.3	12
46	Molten salt attack on multilayer and functionally-graded YSZ coatings. Ceramics International, 2018, 44, 12634-12641.	2.3	10
47	Microwave sintering study of strontium-doped lanthanum manganite in a single-mode microwave with electric and magnetic field at 2.45ÂGHz. Journal of the European Ceramic Society, 2022, 42, 5624-5630.	2.8	10
48	Effect of carbon nanofibers content on thermal properties of ceramic nanocomposites. Journal of Composite Materials, 2012, 46, 1229-1234.	1.2	9
49	Aluminaâ€“Carbon Nanofibers Nanocomposites Obtained by Spark Plasma Sintering for Proton Exchange Membrane Fuel Cell Bipolar Plates. Fuel Cells, 2012, 12, 599-605.	1.5	9
50	High thermal stability of microwave sintered low-Îµr Î²-eucryptite materials. Ceramics International, 2015, 41, 13817-13822.	2.3	9
51	Fretting fatigue wear behavior of Yâ€<scp>TZP</scp> dental ceramics processed by nonâ€conventional microwave sintering. Journal of the American Ceramic Society, 2017, 100, 1842-1852.	1.9	9
52	ZrTiO4 materials obtained by spark plasma reaction-sintering. Composites Part B: Engineering, 2014, 56, 330-335.	5.9	8
53	Synthesis and processing of improved graphite-molybdenum-titanium composites by colloidal route and spark plasma sintering. Ceramics International, 2021, 47, 30993-30998.	2.3	8
54	Study of Microwave Heating Effect in the Behaviour of Graphene as Second Phase in Ceramic Composites. Materials, 2020, 13, 1119.	1.3	7

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55	Synthesis and sintering at low temperature of a new nanostructured beta-Eucryptite dense compact by spark plasma sintering. Ceramics International, 2020, 46, 18469-18477.	2.3	6
56	Functionalization of Carbon Nanofibres Obtained by Floating Catalyst Method. Journal of Nanomaterials, 2015, 2015, 1-7.	1.5	5
57	LZS/Al2O3 nanostructured composites obtained by colloidal processing and spark plasma sintering. Journal of the European Ceramic Society, 2017, 37, 5139-5148.	2.8	5
58	Microstructure and mechanical properties of 4YTZP-SiC composites obtained through colloidal processing and Spark Plasma Sintering. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2021, 60, 175-182.	0.9	5
59	EPD and spark plasma sintering of bimodal alumina/titania concentrated suspensions. Journal of Alloys and Compounds, 2013, 577, 195-202.	2.8	4
60	Wear behavior of conventional and spark plasma sintered Al₂O₃â€NbC nanocomposites. International Journal of Applied Ceramic Technology, 2018, 15, 418-425.	1.1	4
61	Influence of relative humidity and low temperature hydrothermal degradation on fretting wear of Y-TZP dental ceramics. Wear, 2019, 428-429, 1-9.	1.5	4
62	Influencia de los parÃ¡metros de proyecciÃ³n por plasma atmosfÃ©rico en recubrimientos de YSZ obtenidos a partir de polvos micro y nanoestructurados. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2014, 53, 162-170.	0.9	4
63	Improvement of CNFs/SiC nanocomposite properties obtained from different routes and consolidated by pulsed electric-current pressure sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 414-419.	2.6	3
64	LZS/Al2O3 Glass-Ceramic Composites Sintered by Fast Firing. Materials Research, 2017, 20, 84-91.	0.6	3
65	Effect of Al2O3-NbC nanopowder incorporation on the mechanical properties of 3Y-TZP/Al2O3-NbC nanocomposites obtained by conventional and spark plasma sintering. Ceramics International, 2018, 44, 2504-2509.	2.3	3
66	Modification of the Properties of Al2O3/TZ-3YS Thermal Barrier Coating by the Addition of Silicon Carbide Particles and Fructose. Coatings, 2021, 11, 387.	1.2	3
67	Adaptive microwave system for optimum new material sintering. , 2013, , .		2
68	Microwave Technique: An Innovated Method for Sintering Î²-Eucryptite Ceramic Materials. Advances in Science and Technology, 2014, 88, 43-48.	0.2	2
69	Dryâ€sliding wear behavior of 3Yâ€TZP /Al 2 O 3 â€NbC nanocomposites produced by conventional sintering and spark plasma sintering. International Journal of Applied Ceramic Technology, 2019, 16, 1265-1273.	1.1	2
70	Effect of synthesis and sintering temperatures on K0.5Na0.5NbO3 lead-free piezoelectric ceramics by microwave heating. Journal of Materials Science: Materials in Electronics, 2021, 32, 15279-15290.	1.1	2
71	Tribological behavior of TZ4YS-MoSi2 composites obtained by Spark Plasma Sintering. Journal of the European Ceramic Society, 2021, 41, 7155-7163.	2.8	2
72	Effect of Microwave-Assisted Synthesis and Sintering of Lead-Free KNL-NTS Ceramics. Materials, 2022, 15, 3773.	1.3	2

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73	Fabrication and characterization of Nb 2 O 5 â€doped 3Yâ€TZP materials sintered by microwave technology. International Journal of Applied Ceramic Technology, 2021, 18, 2033.	1.1	1
74	Propiedades mecÃ¡nicas y tribolÃ³gicas de materiales nanoestructurados de carburo de silicio/nanofibras de carbono. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2011, 50, 109-116.	0.9	1
75	Propiedades mecÃ¡nicas y coeficiente de dilataciÃ³n tÃ©rmica de la Î²-eucriptita sinterizada por la tÃ©cnica de microondas. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2014, 53, 133-138.	0.9	1
76	LOW TEMPERATURE DEGRADATION BEHAVIOUR OF 10Ce-TZP/Al2O3 BIOCERAMICS OBTAINED BY MICROWAVE SINTERING TECHNOLOGY. , 0, , .		1
77	Study of colored on the microwave sintering behavior of dental zirconia ceramics. Journal of Asian Ceramic Societies, 2021, 9, 188-196.	1.0	1
78	Mechanical Characterization of Conventional and Non-Conventional Sintering Methods of Commercial and Lab-Synthesized Y-TZP Zirconia for Dental Applications. Advances in Science and Technology, 2014, 87, 151-156.	0.2	0
79	Control System Design by Multicriteria Selection in Microwave Sintering Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8528-8533.	0.4	0
80	Investigation of deformation behavior and fracture of ceramic coatings by the acoustic emission method. Journal of Machinery Manufacture and Reliability, 2017, 46, 174-180.	0.1	0
81	Effect of frequency on MW assisted sintering: 2.45 GHz versus 5.8 GHz. International Journal of Applied Electromagnetics and Mechanics, 2020, 63, S149-S154.	0.3	0
82	Influence of SiC Addition on Mechanical Behavior of Thermal Barriers with the Aid of Acoustic Emission. Journal of Composites Science, 2021, 5, 16.	1.4	0
83	A novel study of the effect of temperature on the crystal structure of lithium aluminosilicate materials. Open Ceramics, 2021, 7, 100169.	1.0	0
84	From freeze-dried precursors to microwave sintered Al2O3-ZrO2 composites. Processing and Application of Ceramics, 2019, 13, 157-163.	0.4	0
85	Comparison in mechanical properties of zirconium titanate (ZrTiO4) synthetized by alternative routes and sintered by microwave (MW). , 0, , .		0
86	Design and Development of Zirconia-Alumina Bioceramics Obtained at Low Temperature through Eco-Friendly Technology. , 0, , .		0