Guillaume Bernard-Granger

List of Publications by Year
in descending order

69 papers	1,776 citations	257450 24 h-index	276875 41 g-index
73 all docs	73 docs citations	73 times ranked	1760 citing authors

#	Article	IF	Citations
1	Spark plasma sintering of a commercially available granulated zirconia powder: I. Sintering path and hypotheses about the mechanism(s) controlling densification. Acta Materialia, 2007, 55, 3493-3504.	7.9	211
2	Metastable and unstable cellular solidification of colloidal suspensions. Nature Materials, 2009, 8, 966-972.	27.5	201
3	Influence of graphite contamination on the optical properties of transparent spinel obtained by spark plasma sintering. Scripta Materialia, 2009, 60, 164-167.	5.2	132
4	Spark plasma sintering of a commercially available granulated zirconia powder: Comparison with hot-pressing. Acta Materialia, 2010, 58, 3390-3399.	7.9	90
5	A comparative study of Spark Plasma Sintering (SPS), Hot Isostatic Pressing (HIP) and microwaves sintering techniques on p-type Bi2Te3 thermoelectric properties. Materials Research Bulletin, 2012, 47, 1954-1960.	5.2	74
6	Apparent Activation Energy for the Densification of a Commercially Available Granulated Zirconia Powder. Journal of the American Ceramic Society, 2007, 90, 1246-1250.	3.8	62
7	Sintering Behavior and Optical Properties of Yttria. Journal of the American Ceramic Society, 2007, 90, 2698-2702.	3.8	53
8	New relationships between relative density and grain size during solid-state sintering of ceramic powders. Acta Materialia, 2008, 56, 6273-6282.	7.9	45
9	Effect of microstructure on the thermal conductivity of nanostructured Mg2(Si,Sn) thermoelectric alloys: An experimental and modeling approach. Acta Materialia, 2015, 95, 102-110.	7.9	43
10	Densification mechanism involved during spark plasma sintering of a codoped Î±-alumina material: Part I. Formal sintering analysis. Journal of Materials Research, 2009, 24, 179-186.	2.6	41
11	High-Performance Siliconâ€“Germanium-Based Thermoelectric Modules for Gas Exhaust Energy Scavenging. Journal of Electronic Materials, 2015, 44, 2192-2202.	2.2	40
12	Spark plasma sintering of a commercially available granulated zirconia powderâ€”II. Microstructure after sintering and ionic conductivity. Acta Materialia, 2008, 56, 4658-4672.	7.9	39
13	Influence of surface tension, osmotic pressure and pores morphology on the densification of ice-templated ceramics. Journal of the European Ceramic Society, 2011, 31, 983-987.	5.7	39
14	Sintering of an ultra pure Î±-alumina powder: I. Densification, grain growth and sintering path. Journal of Materials Science, 2007, 42, 6316-6324.	3.7	38
15	Sintering of a quasi-crystalline powder using spark plasma sintering and hot-pressing. Acta Materialia, 2010, 58, 5120-5128.	7.9	38
16	Influence of Co-Doping on the Sintering Path and on the Optical Properties of a Submicronic Alumina Material. Journal of the American Ceramic Society, 2008, 91, 1703-1706.	3.8	37
17	Microstructure investigations and thermoelectrical properties of a P-type polycrystalline higher manganese silicide material sintered from a gas-phase atomized powder. Journal of Alloys and Compounds, 2015, 618, 403-412.	5.5	37
18	High temperature anelastic behaviour of silicon nitride studied by mechanical spectroscopy. Acta Metallurgica Et Materialia, 1995, 43, 419-426.	1.8	36

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19	Sintering of ceramic powders: Determination of the densification and grain growth mechanisms from the â€œgrain size/relative densityâ€•trajectory. Scripta Materialia, 2007, 57, 137-140.	5.2	36
20	Influence of in situ formed MoSi2 inclusions on the thermoelectrical properties of an N-type siliconâ€“germanium alloy. Acta Materialia, 2014, 64, 429-442.	7.9	36
21	Sintering Analysis of a Fine-Grained Alumina-Magnesia Spinel Powder. Journal of the American Ceramic Society, 2011, 94, 1388-1396.	3.8	34
22	Phenomenological analysis of densification mechanism during spark plasma sintering of MgAl₂O₄. Journal of Materials Research, 2009, 24, 2011-2020.	2.6	33
23	High temperature creep behaviour of ceramics. Journal of the European Ceramic Society, 1997, 17, 1647-1654.	5.7	28
24	Influence of MgO or TiO2 doping on the sintering path and on the optical properties of a submicronic alumina material. Scripta Materialia, 2007, 56, 983-986.	5.2	28
25	Sintering of Sodaâ€Lime Glass Microspheres Using Spark Plasma Sintering. Journal of the American Ceramic Society, 2011, 94, 2926-2932.	3.8	20
26	Comparisons of grain size-density trajectory during spark plasma sintering and hot-pressing of zirconia. Materials Letters, 2008, 62, 4555-4558.	2.6	19
27	Microstructure investigations and thermoelectrical properties of an N-type magnesiumâ€“siliconâ€“tin alloy sintered from a gas-phase atomized powder. Acta Materialia, 2015, 96, 437-451.	7.9	19
28	Fabrication of homogenous pellets by freeze granulation of optimized TiO2-Y2O3 suspensions. Journal of the European Ceramic Society, 2019, 39, 2168-2178.	5.7	15
29	Glassy grain-boundary phase crystallization of silicon nitride: Kinetics and phase development. Journal of Materials Science Letters, 1995, 14, 1362-1365.	0.5	13
30	Titanium-based silicide quantum dot superlattices for thermoelectrics applications. Nanotechnology, 2015, 26, 275605.	2.6	13
31	Spark plasma sintering of a p-type Si1âˆ'x Ge x alloy: identification of the densification mechanism by isothermal and anisothermal methods. Journal of Materials Science, 2012, 47, 4313-4325.	3.7	12
32	Stabilization of the tetragonal phase in large columnar zirconia crystals without incorporating dopants. Scripta Materialia, 2013, 68, 559-562.	5.2	12
33	Impact of fine particles on the rheological properties of uranium dioxide powders. Nuclear Engineering and Technology, 2020, 52, 1714-1723.	2.3	12
34	Compressive creep behavior in air of a slightly porous as-sintered polycrystalline Î±-alumina material. Journal of Materials Science, 2007, 42, 2807-2819.	3.7	11
35	Microstructure and thermoelectrical investigations of an N-type magnesiumâ€“siliconâ€“tin alloy. Journal of Alloys and Compounds, 2014, 598, 272-277.	5.5	10
36	Assessment of ultrathin yttria-stabilized zirconia foils for biomedical applications. Journal of Materials Science, 2015, 50, 6197-6207.	3.7	9

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37	Microstructure investigations and thermoelectric properties of an N-type Half-Heusler alloy sintered by spark plasma sintering. Scripta Materialia, 2016, 123, 100-104.	5.2	9
38	Influence of the addition of HfO 2 particles on the thermoelectric properties of an N-type half-Heusler alloy sintered by spark plasma sintering. Journal of Alloys and Compounds, 2017, 709, 36-41.	5.5	9
39	Superplasticity of a Fineâ€Grained TZ3Y Material Involving Dynamic Grain Growth and Dislocation Motion. Journal of the American Ceramic Society, 2010, 93, 848-856.	3.8	8
40	Sintering of an Ultrapure Î±â€Alumina Powder: II. Mechanical, Thermoâ€Mechanical, Optical Properties, and Missile Dome Design. International Journal of Applied Ceramic Technology, 2011, 8, 366-382.	2.1	8
41	Influence of nanosized inclusions on the room temperature thermoelectrical properties of a p-type bismuthâ€"telluriumâ€"antimony alloy. Acta Materialia, 2012, 60, 4523-4530.	7.9	8
42	Preparation and co-dispersion of TiO2-Y2O3 suspensions through the study of their rheological and electrokinetic properties. Ceramics International, 2019, 45, 3023-3032.	4.8	8
43	Dense and homogeneous MOX fuel pellets manufactured using the freeze granulation route. Journal of the American Ceramic Society, 2020, 103, 3020-3029.	3.8	8
44	Rheological properties of alumina powder mixtures investigated using shear tests. Powder Technology, 2019, 345, 300-310.	4.2	7
45	Investigation of a granular Bond number based rheological model for polydispersed particulate systems. Chemical Engineering Science, 2020, 228, 115971.	3.8	7
46	Superplastic deformation of an alumina-zirconia matrix reinforced with SiC whiskers. Journal of the European Ceramic Society, 1992, 10, 13-20.	5.7	6
47	Thermoelectric properties of an N-type siliconâ€"germanium alloy related to the presence of silica nodules dispersed in the microstructure. Scripta Materialia, 2014, 93, 40-43.	5.2	6
48	Sintering of a UO2-PuO2 freeze-granulated powder under reducing conditions. Journal of the European Ceramic Society, 2020, 40, 5900-5908.	5.7	6
49	Y-TZP, Ce-TZP and as-synthesized Ce-TZP/Al2O3 materials in the development of high loading rate digital light processing formulations. Ceramics International, 2021, 47, 3892-3900.	4.8	6
50	Ductility and stress relaxation kinetics in a silicon nitride ceramic in the 1400â€"1650Â°C range. Journal of Materials Science Letters, 2000, 19, 1007-1010.	0.5	5
51	Inversion defects in MgAl2O4 elaborated by pressureless sintering, pressureless sintering plus hot isostatic pressing, and spark plasma sintering. Scripta Materialia, 2009, 61, 516-519.	5.2	5
52	Influence of the addition of Half-Heusler nanoparticles on the thermoelectrical properties of an N-type magnesiumâ€"siliconâ€"tin alloy. Scripta Materialia, 2015, 104, 5-8.	5.2	5
53	Growth and thermal properties of doped monocrystalline titanium-silicide based quantum dot superlattices. Superlattices and Microstructures, 2016, 92, 249-255.	3.1	5
54	Sintering Ce-TZP/alumina composites using aluminum isopropoxide as a precursor. Ceramics International, 2019, 45, 10530-10540.	4.8	5

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55	Sintering investigations of a UO2-PuO2 powder synthesized using the freeze-granulation route. Scripta Materialia, 2020, 186, 190-195.	5.2	5
56	Predicting the flowability of powder mixtures from their single components properties through the multi-component population-dependent granular bond number; extension to ground powder mixtures. Powder Technology, 2021, 379, 26-37.	4.2	5
57	Monocrystalline molybdenum silicide based quantum dot superlattices grown by chemical vapor deposition. Superlattices and Microstructures, 2016, 97, 341-345.	3.1	4
58	Transmission Electron Microscopy Investigations on a Polysiloxane Preceramic Polymer Pyrolyzed at High Temperature in Argon. Ceramics, 2020, 3, 421-427.	2.6	4
59	Mechanical spectroscopy connected to creep and stress relaxation in a high resistant silicon nitride. Journal of the European Ceramic Society, 2002, 22, 2511-2516.	5.7	3
60	Investigating grinding mechanisms and scaling criteria in a ball mill by dimensional analysis. Advanced Powder Technology, 2021, 32, 2988-3001.	4.1	3
61	Influence of the PuO2 content on the sintering behaviour of UO2-PuO2 freeze-granulated powders under reducing conditions. Journal of the European Ceramic Society, 2021, 41, 6778-6783.	5.7	3
62	Observation of Different Interfaces in Silicon Nitride by HRTEM. Influence of the Microstructure on the Creep Properties.. Key Engineering Materials, 1997, 132-136, 559-562.	0.4	2
63	Compressive Creep and Stress Relaxation Kinetics in a High Purity Silicon Nitride Ceramics in the 1400-1650 Â°C Range. Key Engineering Materials, 2000, 171-174, 817-824.	0.4	2
64	Growth and characterization of QDSL (Quantum Dots Superlattices) of metal silicides in an n-doped SiGe matrix for thermoelectric applications. , 2014, , .		2
65	Predicting the flowability of alumina powder during batch grinding through the establishment of a grinding kinetic model. Advanced Powder Technology, 2021, 32, 3207-3219.	4.1	2
66	Influence of Co-Doping on the Sintering Map of an Ultra Fine and Ultra Pure Alpha Alumina Powder. Advances in Science and Technology, 2006, 45, 55.	0.2	1
67	Ã‰tude du frittage SPS d'une poudre de zircone ultrafine. Materiaux Et Techniques, 2007, 95, 235-239.	0.9	1
68	Multi-scale homogeneity analysis of co-milled powders: Development of a reverse approach to assess quality of mixtures. Powder Technology, 2022, 400, 117263.	4.2	1
69	DÃ©formation du nitrure de silicium entre 1400 et 1700Â°C. Revue De Metallurgie, 2000, 97, 1047-1054.	0.3	0