Brian S Mitchell

List of Publications by Year
in descending order

70	979	516215 16	454577 30
papers	citations	h-index	g-index

75	75	75	1429
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cytotoxicity of surface-functionalized silicon and germanium nanoparticles: the dominant role of surface charges. Nanoscale, 2013, 5, 4870.	2.8	161
2	Mechanochemical Synthesis of Blue Luminescent Alkyl/Alkenylâ€Passivated Silicon Nanoparticles. Advanced Materials, 2007, 19, 3984-3988.	11.1	137
3	Magnetic properties of perovskite-derived air-synthesizedRBaCo2O5+Î´(R=Laî—¸Ho)compounds. Physical Review B, 2005, 71, .	1.1	81
4	Nucleation and crystallization in calcium aluminate glasses. Journal of Non-Crystalline Solids, 1999, 255, 199-207.	1.5	47
5	Structure and interfacial properties of nanocrystalline aluminum/mullite composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 326, 317-323.	2.6	42
6	Silicon nanoparticles with chemically tailored surfaces. Applied Organometallic Chemistry, 2010, 24, 236-240.	1.7	36
7	Crystal growth kinetics of nanocrystalline aluminum prepared by mechanical attrition in nylon media. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 396, 124-128.	2.6	33
8	Phase identification in calcia-alumina fibers crystallized from amorphous precursors. Journal of Non-Crystalline Solids, 1993, 152, 143-149.	1.5	25
9	Infrared Studies of Calcia-Alumina Fibers. Journal of the American Ceramic Society, 1996, 79, 2469-2473.	1.9	24
10	Hydration and proton conduction in Nafion/ceramic nanocomposite membranes produced by solidâ€state processing of powders from mechanical attrition. Journal of Applied Polymer Science, 2009, 113, 243-250.	1.3	23
11	Preparation of Micrometer- to Sub-micrometer-Sized Nanostructured Silica Particles Using High-Energy Ball Milling. Journal of the American Ceramic Society, 2004, 87, 1280-1286.	1.9	21
12	A Method for Determining Crystallization Kinetic Parameters from one Nonisothermal Calorimetric Experiment. Journal of Materials Research, 2000, 15, 1000-1007.	1.2	20
13	The use of polymeric milling media in the reduction of contamination during mechanical attrition. Journal of Materials Research, 2002, 17, 2997-2999.	1.2	20
14	Infrared studies of preparation effects in calcium aluminate glasses. Journal of Non-Crystalline Solids, 1998, 224, 184-190.	1.5	18
15	Crystallization kinetics of amorphous silicon carbide derived from polymeric precursors. Thermochimica Acta, 1999, 337, 155-161.	1.2	17
16	Thermal expansion behavior and microstructure in bulk nanocrystalline selenium by thermomechanical analysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 270, 237-243.	2.6	17
17	Catalyzed self-aldol reaction of valeraldehyde via a mechanochemical method. Journal of Molecular Catalysis A, 2009, 304, 117-120.	4.8	16
18	Mechanochemical synthesis of functionalized silicon nanoparticles with terminal chlorine groups. Journal of Materials Research, 2011, 26, 1052-1060.	1.2	16

#	Article	IF	Citations
19	Mild Two-Step Method to Construct DNA-Conjugated Silicon Nanoparticles: Scaffolds for the Detection of MicroRNA-21. Bioconjugate Chemistry, 2014, 25, 1739-1743.	1.8	16
20	A fractionation process of mechanochemically synthesized blue-green luminescent alkyl-passivated silicon nanoparticles. Chemical Engineering Journal, 2011, 172, 591-600.	6.6	14
21	THE PRODUCTION OF BaO-TiO2 FIBERS VIA INVISCID MELT-SPINNING (IMS). Chemical Engineering Communications, 1991, 106, 87-92.	1.5	13
22	Mullite Decomposition Kinetics and Melt Stabilization in the Temperature Range 1900â€”2000Â°C. Journal of the American Ceramic Society, 2000, 83, 761-767.	1.9	12
23	Solidâ€state blending of poly(ethylene terephthalate) with polystyrene: Extent of compatibilization and its dependence on blend composition. Polymer Engineering and Science, 2008, 48, 649-655.	1.5	12
24	The production of mullite fibers via inviscid melt-spinning (IMS). Materials Letters, 1998, 37, 359-365.	1.3	11
25	Tuning Carbon Content and Morphology of FeCo/Graphitic Carbon Coreâ€“Shell Nanoparticles using a Saltâ€Matrixâ€Assisted CVD Process. Particle and Particle Systems Characterization, 2014, 31, 474-480.	1.2	11
26	Introduction of new reinforcement for cementitious materialsâ€”Calcia/alumina (CA) fibers formed by the inviscid melt-spinning (IMS) process. Cement and Concrete Composites, 1993, 15, 165-172.	4.6	10
27	Synchrotron infrared microspectroscopy characterization of heterogeneities in solid-state blended polymers. Materials Letters, 2007, 61, 2151-2155.	1.3	9
28	Water-soluble PEGylated silicon nanoparticles and their assembly into swellable nanoparticle aggregates. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	9
29	Silicon nanoparticles synthesised through reactive high-energy ball milling: enhancement of optical properties from the removal of iron impurities. Journal of Experimental Nanoscience, 2015, 10, 1214-1222.	1.3	9
30	Attenuation effects in aluminum and lead fibers formed by inviscid melt-spinning (IMS). Materials Letters, 1990, 10, 71-74.	1.3	8
31	Fourier Transform Infrared Studies of Propane Pyrolysis over Calcium Aluminate Melts. Journal of the American Ceramic Society, 1998, 81, 1045-1049.	1.9	8
32	Wetting properties of silicon films from alkyl-passivated particles produced by mechanochemical synthesis. Journal of Colloid and Interface Science, 2010, 348, 634-641.	5.0	8
33	Viscosity of eutectic calcia-alumina melts. Materials Chemistry and Physics, 1993, 34, 81-85.	2.0	7
34	Micro-Raman analysis of calcium aluminate fibers formed by inviscid melt spinning. Materials Letters, 2000, 45, 138-142.	1.3	7
35	Formation of Nanocrystalline Silicon Carbide Powder from Chlorineâ€Containing Polycarbosilane Precursors. Journal of the American Ceramic Society, 1999, 82, 2249-2251.	1.9	7
36	Solid state blending of poly(ethylene terephthalate) with polystyrene: Extent of PET amorphization and compositional effects on crystallizability. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 1348-1359.	2.4	7

#	Article	IF	Citations
37	Functionalized silicon nanoparticles from reactive cavitation erosion of silicon wafers. Chemical Communications, 2015, 51, 1465-1468.	2.2	7
38	Crystallization and solidification studies in calcia-alumina fibres formed via inviscid melt spinning (IMS). Ceramics International, 1998, 24, 67-71.	2.3	6
39	A modified diffuse reflectance infrared Fourier transform spectroscopy cell for depth profiling of ceramic fibers. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2000, 56, 467-473.	2.0	6
40	Chemical stability of inviscid melt-spun (IMS) fibers of calcia-alumina in aqueous media. Materials Chemistry and Physics, 1993, 34, 219-227.	2.0	5
41	Williamson ether synthesis: an efficient one-step route for surface modifications of silicon nanoparticles. Journal of Experimental Nanoscience, 2015, 10, 588-598.	1.3	5
42	Appendix 8: Electrical Conductivity of Selected Materials. , 0, , 893-899.		3
43	Nanocrystallinity in heat-treated calcium aluminate fibers. Materials Letters, 2001, 48, 316-318.	1.3	2
44	Preparation and characterization of ball-milled NafionÂ® powders for membrane applications. Journal of Applied Polymer Science, 2004, 93, 2275-2281.	1.3	2
45	Effect of Lubricant on the Surface Structure of Aluminosilicate Fibers. Journal of the American Ceramic Society, 1998, 81, 3333-3336.	1.9	1
46	Formation of Nanocrystalline SiC Powder from Chlorine-Containing Polycarbosilane Precursors. Materials Research Society Symposia Proceedings, 1999, 581, 205.	0.1	1
47	The Structure of Materials. , 0, , 1-135.		1
48	Kinetic Processes in Materials. , 0, , 215-284.		1
49	Appendix 9: Refractive Index of Selected Materials. , 0, , 900-902.		1
50	Mechanical and hydration properties of NafionÂ®/ceramic nanocomposite membranes produced by mechanical attrition. Journal of Applied Polymer Science, 2009, 111, 1144-1150.	1.3	1
51	Power law modeling of acoustic cavitation erosion: the hemispherical pit model. Journal of Physics Communications, 2019, 3, 035014.	0.5	1
52	Reactive cavitation erosion as a technique for production of functionalized copper hydroxychloride nanomaterials. Journal of Physics Communications, 2020, 4, 051002.	0.5	1
53	Binder Droplet-Fiber Interactions in the Production of Thermal Insulations. Journal of Thermal Insulation, 1991, 15, 30-44.	0.2	0
54	OPTIMIZATION OF PROCESS PARAMETERS IN THE PRODUCTION OF MULLITE FIBERS VIA INVISCID MELT-SPINNING (IMS). Chemical Engineering Communications, 1999, 173, 123-133.	1.5	0

#	Article	IF	Citations
55	Crystallization Kinetics of Polysilane Derived SiC. Key Engineering Materials, 2001, 206-213, 55-58.	0.4	0
56	Case Studies in Materials Selection. , 0, , 814-850.		0
57	Electrical, Magnetic, and Optical Properties of Materials. , 0, , 537-680.		0
58	Micron to Sub-Micron Sized Highly Ordered Mesoporous Silica Particles Prepared Using a High Energy Ball Milling Process. Materials Research Society Symposia Proceedings, 2003, 775, 3291.	0.1	0
59	Processing of Materials. , 0, , 681-813.		0
60	Mechanics of Materials. , 0, , 380-536.		0
61	Appendix 7: Mechanical Properties of Selected Materials. , 0, , 882-892.		0
62	Appendix 5: Thermal Conductivities of Selected Materials. , 0, , 874-879.		0
63	Appendix 6: Diffusivities in Selected Systems. , 0, , 880-881.		0
64	Thermodynamics of Condensed Phases. , 0, , 136-214.		0
65	Transport Properties of Materials. , 0, , 285-379.		0
66	Appendix 3: Composition of Common Alloys. , 0, , 856-868.		0
67	Appendix 4: Surface and Interfacial Energies. , 0, , 869-873.		0
68	Periodic Table. , 0, , 0-0.		0
69	Appendix 1: Energy Values for Single Bonds. , 0, , 851-851.		0
70	Appendix 2: Structure of Some Common Polymers. , 0, , 852-855.		0