Brian S Mitchell

List of Publications by Year in Descending Order

71 papers	868 citations	16 h-index	28 g-index
75 ext. papers	905 ext. citations	4.2 avg, IF	3.79 L-index

#	Paper	IF	Citations
71	Reactive cavitation erosion as a technique for production of functionalized copper hydroxychloride nanomaterials. *Journal of Physics Communications*, **2020**, 4, 051002	1.2	0
70	Power law modeling of acoustic cavitation erosion: the hemispherical pit model. *Journal of Physics Communications*, **2019**, 3, 035014	1.2	1
69	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	1.9	9
68	Functionalized silicon nanoparticles from reactive cavitation erosion of silicon wafers. *Chemical Communications*, **2015**, 51, 1465-8	5.8	5
67	Williamson ether synthesis: an efficient one-step route for surface modifications of silicon nanoparticles. *Journal of Experimental Nanoscience*, **2015**, 10, 588-598	1.9	4
66	Nanostructures from Reactive High-Energy Ball Milling **2015**, 493-510		
65	Water-soluble PEGylated silicon nanoparticles and their assembly into swellable nanoparticle aggregates. *Journal of Nanoparticle Research*, **2015**, 17, 1	2.3	7
64	Mild two-step method to construct DNA-conjugated silicon nanoparticles: scaffolds for the detection of microRNA-21. *Bioconjugate Chemistry*, **2014**, 25, 1739-43	6.3	15
63	Tuning Carbon Content and Morphology of FeCo/Graphitic Carbon Core–Shell Nanoparticles using a Salt-Matrix-Assisted CVD Process. *Particle and Particle Systems Characterization*, **2014**, 31, 474-480	3.1	10
62	Cytotoxicity of surface-functionalized silicon and germanium nanoparticles: the dominant role of surface charges. *Nanoscale*, **2013**, 5, 4870-83	7.7	141
61	The Mechanochemical Formation of Functionalized Semiconductor Nanoparticles for Biological, Electronic and Superhydrophobic Surface Applications. *Ceramic Transactions*, **2011**, 129-142	0.1	3
60	A fractionation process of mechanochemically synthesized blue-green luminescent alkyl-passivated silicon nanoparticles. *Chemical Engineering Journal*, **2011**, 172, 591-600	14.7	14
59	Mechanochemical synthesis of functionalized silicon nanoparticles with terminal chlorine groups. *Journal of Materials Research*, **2011**, 26, 1052-1060	2.5	15
58	Silicon nanoparticles with chemically tailored surfaces. *Applied Organometallic Chemistry*, **2010**, 24, 236-240	3.4	34
57	Wetting properties of silicon films from alkyl-passivated particles produced by mechanochemical synthesis. *Journal of Colloid and Interface Science*, **2010**, 348, 634-41	9.3	7
56	Hydration and proton conduction in Nafion/ceramic nanocomposite membranes produced by solid-state processing of powders from mechanical attrition. *Journal of Applied Polymer Science*, **2009**, 113, 243-250	2.9	20
55	Catalyzed self-aldol reaction of valeraldehyde via a mechanochemical method. *Journal of Molecular Catalysis A*, **2009**, 304, 117-120		16

54	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	2.6	6
53	Solid-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	2.3	11
52	Mechanochemical Synthesis of Blue Luminescent Alkyl/Alkenyl-Passivated Silicon Nanoparticles. *Advanced Materials*, **2007**, 19, 3984-3988	24	121
51	Synchrotron infrared microspectroscopy characterization of heterogeneities in solid-state blended polymers. *Materials Letters*, **2007**, 61, 2151-2155	3.3	9
50	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	5.3	30
49	Magnetic properties of perovskite-derived air-synthesized RBaCo2O5+□(R=La?Ho) compounds. *Physical Review B*, **2005**, 71,	3.3	80
48	Fourier Transform Infrared Studies of Propane Pyrolysis over Calcium Aluminate Melts. *Journal of the American Ceramic Society*, **2005**, 81, 1045-1049	3.8	7
47	Formation of Nanocrystalline Silicon Carbide Powder from Chlorine-Containing Polycarbosilane Precursors. *Journal of the American Ceramic Society*, **2004**, 82, 2249-2251	3.8	6
46	Mullite Decomposition Kinetics and Melt Stabilization in the Temperature Range 1900□2000□C. *Journal of the American Ceramic Society*, **2004**, 83, 761-767	3.8	9
45	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	3.8	20
44	Preparation and characterization of ball-milled Nafion□ powders for membrane applications. *Journal of Applied Polymer Science*, **2004**, 93, 2275-2281	2.9	1
43	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		
42	Structure and interfacial properties of nanocrystalline aluminum/mullite composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 326, 317-323	5.3	38
41	The use of polymeric milling media in the reduction of contamination during mechanical attrition. *Journal of Materials Research*, **2002**, 17, 2997-2999	2.5	17
40	Crystallization Kinetics of Polysilane Derived SiC. *Key Engineering Materials*, **2001**, 206-213, 55-58	0.4	
39	Nanocrystallinity in heat-treated calcium aluminate fibers. *Materials Letters*, **2001**, 48, 316-318	3.3	1
38	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, 467-73	4.4	6
37	A method for determining crystallization kinetic parameters from one nonisothermal calorimetric experiment. *Journal of Materials Research*, **2000**, 15, 1000-1007	2.5	20

36	Micro-Raman analysis of calcium aluminate fibers formed by inviscid melt spinning. *Materials Letters*, **2000**, 45, 138-142	3.3	5
35	Crystallization kinetics of amorphous silicon carbide derived from polymeric precursors. *Thermochimica Acta*, **1999**, 337, 155-161	2.9	17
34	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	5.3	17
33	Nucleation and crystallization in calcium aluminate glasses. *Journal of Non-Crystalline Solids*, **1999**, 255, 199-207	3.9	41
32	OPTIMIZATION OF PROCESS PARAMETERS IN THE PRODUCTION OF MULLITE FIBERS VIA INVISCID MELT-SPINNING (IMS). *Chemical Engineering Communications*, **1999**, 173, 123-133	2.2	
31	Formation of Nanocrystalline SiC Powder from Chlorine-Containing Polycarbosilane Precursors. *Materials Research Society Symposia Proceedings*, **1999**, 581, 205		1
30	Effect of Lubricant on the Surface Structure of Aluminosilicate Fibers. *Journal of the American Ceramic Society*, **1998**, 81, 3333-3336	3.8	1
29	Crystallization and solidification studies in calcia-alumina fibres formed via inviscid melt spinning (IMS). *Ceramics International*, **1998**, 24, 67-71	5.1	6
28	The production of mullite fibers via inviscid melt-spinning (IMS). *Materials Letters*, **1998**, 37, 359-365	3.3	9
27	Infrared studies of preparation effects in calcium aluminate glasses. *Journal of Non-Crystalline Solids*, **1998**, 224, 184-190	3.9	17
26	Infrared Studies of Calcia-Alumina Fibers. *Journal of the American Ceramic Society*, **1996**, 79, 2469-2473	3.8	20
25	Phase identification in calcia-alumina fibers crystallized from amorphous precursors. *Journal of Non-Crystalline Solids*, **1993**, 152, 143-149	3.9	19
24	Introduction of new reinforcement for cementitious materials□Calcia/alumina (CA) fibers formed by the inviscid melt-spinning (IMS) process. *Cement and Concrete Composites*, **1993**, 15, 165-172	8.6	7
23	Chemical stability of inviscid melt-spun (IMS) fibers of calcia-alumina in aqueous media. *Materials Chemistry and Physics*, **1993**, 34, 219-227	4.4	3
22	Viscosity of eutectic calcia-alumina melts. *Materials Chemistry and Physics*, **1993**, 34, 81-85	4.4	3
21	Binder Droplet-Fiber Interactions in the Production of Thermal Insulations. *Journal of Thermal Insulation*, **1991**, 15, 30-44		
20	THE PRODUCTION OF BaO-TiO2 FIBERS VIA INVISCID MELT-SPINNING (IMS). *Chemical Engineering Communications*, **1991**, 106, 87-92	2.2	8
19	Attenuation effects in aluminum and lead fibers formed by inviscid melt-spinning (IMS). *Materials Letters*, **1990**, 10, 71-74	3.3	8