Daniel Roper

List of Publications by Citations

132 papers	3,772 citations	28 h-index	58 g-index
136 ext. papers	4,295 ext. citations	3 avg, IF	5.55 L-index

#	Paper	IF	Citations
132	Understanding the relationship between geopolymer composition, microstructure and mechanical properties. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2005**, 269, 47-58	5.1	972
131	Formation of Ceramics from Metakaolin-Based Geopolymers. Part II: K-Based Geopolymer. *Journal of the American Ceramic Society*, **2009**, 92, 607-615	3.8	180
130	Formation of Ceramics from Metakaolin-Based Geopolymers: Part I□s-Based Geopolymer. *Journal of the American Ceramic Society*, **2009**, 92, 1-8	3.8	129
129	Possible Alternative Transformation Tougheners to Zirconia: Crystallographic Aspects. *Journal of the American Ceramic Society*, **1988**, 71, 1021-1030	3.8	109
128	Synthesis of oxide powders by way of a polymeric steric entrapment precursor route. *Journal of Materials Research*, **1999**, 14, 3417-3426	2.5	100
127	Atomic Structure of a Cesium Aluminosilicate Geopolymer: A Pair Distribution Function Study. *Chemistry of Materials*, **2008**, 20, 4768-4776	9.6	95
126	Chemical Synthesis and Characterization of Calcium Aluminate Powders. *Journal of the American Ceramic Society*, **1994**, 77, 531-539	3.8	90
125	Physical Stabilization of the □T□ransformation in Dicalcium Silicate. *Journal of the American Ceramic Society*, **1992**, 75, 1621-1627	3.8	90
124	Phase Transformations in Dicalcium Silicate: II, TEM Studies of Crystallography, Microstructure, and Mechanisms. *Journal of the American Ceramic Society*, **1992**, 75, 2407-2419	3.8	89
123	X-Ray pair distribution function analysis of a metakaolin-based, KAlSi2O6□5.5H2O inorganic polymer (geopolymer). *Journal of Materials Chemistry*, **2008**, 18, 5974		81
122	Crystallization and Densification of Nano-Size Amorphous Cordierite Powder Prepared by a PVA Solution-Polymerization Route. *Journal of the American Ceramic Society*, **2005**, 81, 2605-2612	3.8	81
121	Geopolymer-bamboo composite □A novel sustainable construction material. *Construction and Building Materials*, **2016**, 123, 501-507	6.7	73
120	Emergence and Extinction of a New Phase During On□Off Experiments Related to Flash Sintering of 3YSZ. *Journal of the American Ceramic Society*, **2015**, 98, 1493-1497	3.8	70
119	Thermal Expansion of HfO2 and ZrO2. *Journal of the American Ceramic Society*, **2014**, 97, 2213-2222	3.8	64
118	Preparation of Portland Cement Components by Poly(vinyl alcohol) Solution Polymerization. *Journal of the American Ceramic Society*, **2004**, 82, 2049-2055	3.8	61
117	Fabrication of Structural Leucite Glass□Ceramics from Potassium-Based Geopolymer Precursors. *Journal of the American Ceramic Society*, **2010**, 93, 2644-2649	3.8	58
116	High-Temperature Properties and Ferroelastic Phase Transitions in Rare-Earth Niobates (LnNbO4). *Journal of the American Ceramic Society*, **2014**, 97, 3307-3319	3.8	57

115	Control of Interfacial Properties through Fiber Coatings: Monazite Coatings in Oxide□Oxide Composites. *Journal of the American Ceramic Society*, **2005**, 80, 2987-2996	3.8	53
114	Crystallization kinetics of yttrium aluminum garnet (Y3Al5O12). *Journal of Materials Research*, **2001**, 16, 1795-1805	2.5	50
113	Characterization of Yttrium Phosphate and a Yttrium Phosphate/Yttrium Aluminate Laminate. *Journal of the American Ceramic Society*, **1995**, 78, 3121-3124	3.8	50
112	Phase Transformations in Dicalcium Silicate: I, Fabrication and Phase Stability of Fine-Grained □ Phase. *Journal of the American Ceramic Society*, **1992**, 75, 2400-2406	3.8	48
111	In Situ Mechanical Properties of Chamotte Particulate Reinforced, Potassium Geopolymer. *Journal of the American Ceramic Society*, **2014**, 97, 907-915	3.8	42
110	Porous Biphasic Calcium Phosphate Scaffolds from Cuttlefish Bone. *Journal of the American Ceramic Society*, **2011**, 94, 2362-2370	3.8	39
109	Weakening of Alkali-Activated Metakaolin During Aging Investigated by the Molybdate Method and Infrared Absorption Spectroscopy. *Journal of the American Ceramic Society*, **2010**, 93, 2585-2590	3.8	36
108	Development of mechanical properties in dental resin composite: Effect of filler size and filler aggregation state. *Materials Science and Engineering C*, **2019**, 101, 274-282	8.3	33
107	A Strong and Damage-Tolerant Oxide Laminate. *Journal of the American Ceramic Society*, **2005**, 80, 2421-2424	3.8	32
106	Experimental study of nonlinear acoustic bands and propagating breathers in ordered granular media embedded in matrix. *Granular Matter*, **2015**, 17, 49-72	2.6	28
105	Analytical Electron Microscopic Studies of Doped Dicalcium Silicates. *Journal of the American Ceramic Society*, **1988**, 71, 713-719	3.8	28
104	High-entropy, phase-constrained, lanthanide sesquioxide. *Journal of the American Ceramic Society*, **2020**, 103, 569-576	3.8	28
103	□Alumina and spinel react into single-phase high-alumina spinel in . *Journal of the American Ceramic Society*, **2019**, 102, 644-653	3.8	25
102	In-situ determination of the HfO2□Ta2O5-temperature phase diagram up to 3000□C. *Journal of the American Ceramic Society*, **2019**, 102, 4848-4861	3.8	25
101	In-situ investigation of Hf6Ta2O17 anisotropic thermal expansion and topotactic, peritectic transformation. *Acta Materialia*, **2018**, 161, 127-137	8.4	25
100	Broadening of Diffraction Peak Widths and Temperature Nonuniformity During Flash Experiments. *Journal of the American Ceramic Society*, **2016**, 99, 3429-3434	3.8	24
99	Highly Porous Geopolymers Through Templating and Surface Interactions. *Journal of the American Ceramic Society*, **2015**, 98, 2052-2059	3.8	22
98	Complete Elastic Tensor for Mullite (~2.5Al2O3□SiO2) to High Temperatures Measured from Textured Fibers. *Journal of the American Ceramic Society*, **2002**, 85, 2005-2012	3.8	22

97	Phase Stability of Chemically Derived Enstatite (MgSiO3) Powders. *Journal of the American Ceramic Society*, **1994**, 77, 2625-2631	3.8	22
96	Properties of Geopolymer Composites Reinforced with Basalt Chopped Strand Mat or Woven Fabric. *Journal of the American Ceramic Society*, **2016**, 99, 1192-1199	3.8	22
95	On the role of deformation twinning in domain reorganization and grain reorientation in ferroelastic crystals. *Journal of Materials Research*, **1997**, 12, 1771-1776	2.5	21
94	Mechanical Properties and Microstructure of Ca2SiO4□CaZrO3 Composites. *Journal of the American Ceramic Society*, **1994**, 77, 65-72	3.8	21
93	A Forming Technique to Produce Spherical Ceramic Beads Using Sodium Alginate as a Precursor Binder Phase. *Journal of the American Ceramic Society*, **2013**, 96, 3379-3388	3.8	19
92	Interfacial structure and chemistry in a ceramic/polymer composite material. *Journal of Materials Research*, **1992**, 7, 1545-1552	2.5	19
91	Optimization of Gas Adsorption Porosimetry for Geopolymer Analysis. *Journal of the American Ceramic Society*, **2013**, 96, 3643-3649	3.8	18
90	Potassium-Based Geopolymer Composites Reinforced with Chopped Bamboo Fibers. *Journal of the American Ceramic Society*, **2017**, 100, 49-55	3.8	18
89	Microstructure and Microchemistry of Fully-Reacted Geopolymers and Geopolymer Matrix Composites. *Ceramic Transactions*, **2012**, 227-250	0.1	18
88	Toughening of Mullite/Cordierite Laminated Composites by Transformation Weakening of □Cristobalite Interphases. *Journal of the American Ceramic Society*, **2005**, 88, 1521-1528	3.8	18
87	Toughened Oxide Composites Based on Porous Alumina-Platelet Interphases. *Journal of the American Ceramic Society*, **2001**, 84, 767-774	3.8	18
86	Sodium silicate activated slag-fly ash binders: Part I □Processing, microstructure, and mechanical properties. *Journal of the American Ceramic Society*, **2018**, 101, 2228-2244	3.8	17
85	In Situ Synchrotron X-Ray Diffraction Study of the Cubic to Rhombohedral Phase Transformation in Ln6WO12 (Ln□=□Y, Ho, Er, Yb). *Journal of the American Ceramic Society*, **2013**, 96, 987-994	3.8	17
84	Mullite□Aluminum Phosphate Laminated Composite Fabricated by Tape Casting. *Journal of the American Ceramic Society*, **2003**, 86, 1962-1964	3.8	17
83	The Effect of Basalt Chopped Fiber Reinforcement on the Mechanical Properties of Potassium Based Geopolymer. *Ceramic Engineering and Science Proceedings*,31-42	0.1	17
82	Sintering Behavior of Gehlenite. Part I: Self-Forming, Macro-/Mesoporous Gehlenite□Pore-Forming Mechanism, Microstructure, Mechanical, and Physical Properties. *Journal of the American Ceramic Society*, **2007**, 90, 1760-1773	3.8	16
81	Indentation-Induced Amorphization in Mullite Single Crystals. *Journal of the American Ceramic Society*, **2003**, 86, 1821-1822	3.8	15
80	5.9 Geopolymer-Based Composites **2018**, 269-280		15

79	Properties and Microstructure of Molybdenum Disilicide/β-SiAlON Particulate Ceramic Composites. *Journal of the American Ceramic Society*, **1997**, 80, 2837-2843	3.8	14
78	Phase Transformations in the High-Temperature Form of Pure and TiO2-Stabilized Ta2O5. *Journal of the American Ceramic Society*, **2007**, 90, 2947-2953	3.8	14
77	Processing and Characterization of Multiphase Ceramic Composites Part II: Triplex Composites with a Wide Sintering Temperature Range. *Journal of the American Ceramic Society*, **2008**, 91, 793-798	3.8	14
76	High Temperature Microhardness of Single Crystal Mullite. *Journal of the American Ceramic Society*, **2004**, 87, 970-972	3.8	14
75	X-ray photoelectron spectroscopy studies of bond structure between polyvinyl alcohol and a titanate cross-coupling agent. *Journal of Materials Research*, **1995**, 10, 1565-1571	2.5	13
74	Slag-fly ash and slag-metakaolin binders: Part II Properties of precursors and NMR study of poorly ordered phases. *Journal of the American Ceramic Society*, **2019**, 102, 3204-3227	3.8	13
73	Phase Transformations in Dicalcium Silicate: III, Effects of Barium on the Stability of Fine-Grained α′L and β Phases. *Journal of the American Ceramic Society*, **1993**, 76, 2628-2634	3.8	12
72	Synthesis and Characterization of Silicon Carbide Powders Converted from Metakaolin-Based Geopolymer. *Journal of the American Ceramic Society*, **2016**, 99, 2521-2530	3.8	12
71	Rice Husk Ash as a Silica Source in a Geopolymer Formulation. *Ceramic Engineering and Science Proceedings*,87-101	0.1	12
70	Crystal structure solution for the ABO (A = Zr, Hf; B = Nb, Ta) superstructure. *Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials*, **2019**, 75, 227-234	1.8	11
69	Polymer Adhesion to Geopolymer via Silane Coupling Agent Additives. *Journal of the American Ceramic Society*, **2012**, 95, 3758-3762	3.8	11
68	Sodium silicate activated slag-fly ash binders: Part III Composition of soft gel and calorimetry. *Journal of the American Ceramic Society*, **2019**, 102, 3175-3190	3.8	11
67	Geopolymer reinforced with E-glass leno weaves. *Journal of the American Ceramic Society*, **2017**, 100, 2492-2501	3.8	10
66	The Change of X-ray Diffraction Peak Width During in situ Conventional Sintering of Nanoscale Powders. *Journal of the American Ceramic Society*, **2016**, 99, 765-768	3.8	10
65	Geopolymer with Hydrogel Characteristics via Silane Coupling Agent Additives. *Journal of the American Ceramic Society*, **2014**, 97, 295-302	3.8	10
64	Alumina Region of the Lithium Aluminosilicate System: A New Window for Temperature Ultrastable Materials Design. *Journal of the American Ceramic Society*, **2013**, 96, 2039-2041	3.8	10
63	Stereological Observations of Platelet-Reinforced Mullite- and Zirconia-Matrix Composites. *Journal of the American Ceramic Society*, **1996**, 79, 3273-3281	3.8	10
62	Potassium Geopolymer Reinforced with Alkali-Treated Fique. *Ceramic Engineering and Science Proceedings*,61-78	0.1	10

61	Bonding behavior of Cu/CuO thick film on a low-firing ceramic substrate. *Journal of Materials Research*, **1997**, 12, 2411-2418	2.5	9
60	Sintering Behavior of Gehlenite, Part II. Microstructure and Mechanical Properties. *Journal of the American Ceramic Society*, **2007**, 90, 2766-2770	3.8	9
59	Relationship Between the Orthorhombic and Hexagonal Phases in Dy2TiO5. *Journal of the American Ceramic Society*, **2016**, 99, 3739-3744	3.8	9
58	Temperature gradients for thermophysical and thermochemical property measurements to 3000 °C for an aerodynamically levitated spheroid. *Review of Scientific Instruments*, **2019**, 90, 015109	1.7	8
57	Synthesis of NaTi2(PO4)3 by the Inorganic–Organic Steric Entrapment Method and Its Thermal Expansion Behavior. *Journal of the American Ceramic Society*, **2016**, 99, 3586-3593	3.8	8
56	Sodium Geopolymer Reinforced with Jute Weave. *Ceramic Engineering and Science Proceedings*, **2015**, 39-60	0.1	8
55	Composite Cold Ceramic Geopolymer in a Refractory Application. *Ceramic Transactions*, **2012**, 211-225	0.1	8
54	Carbon-Coated-Glass-Fiber-Reinforced Cement Composites: I, Fiber Pushout and Interfacial Properties. *Journal of the American Ceramic Society*, **2005**, 80, 2326-2332	3.8	8
53	Crystallography and microstructural studies of phase transformations in the Dy2O3 system. *Journal of Materials Research*, **1998**, 13, 2920-2931	2.5	8
52	Synthetic Aragonite (CaCO3) as a Potential Additive in Calcium Phosphate Cements: Evaluation in Tris-Free SBF at 37 °C. *Journal of the American Ceramic Society*, **2014**, 97, 3052-3061	3.8	7
51	Microstructure and Mechanical Evaluation of Yttrium Phosphate-Containing and Lanthanum Phosphate-Containing Zirconia Laminates. *Ceramic Engineering and Science Proceedings*,129-136	0.1	7
50	Formation of β-Si3N4 nanoparticles by carbothermal reduction and nitridation of geopolymers. *Journal of the American Ceramic Society*, **2019**, 102, 6542-6551	3.8	6
49	Synthesis of LiFePO4 powder by the organic–inorganic steric entrapment method. *Journal of Materials Research*, **2015**, 30, 2133-2143	2.5	6
48	Thermal Expansion of the Orthorhombic Phase in the Ln2TiO5 System. *Journal of the American Ceramic Society*, **2015**, 98, 4096-4101	3.8	6
47	Mullite (3Al2O3·2SiO2)–Aluminum Phosphate (AlPO4), Oxide, Fibrous Monolithic Composites. *Journal of the American Ceramic Society*, **2004**, 87, 794-803	3.8	6
46	Preparation, Microstructure, and Mechanical Properties of Silicon Carbide–Dysprosia Composites. *Journal of the American Ceramic Society*, **2005**, 80, 2997-3008	3.8	6
45	Chemically Bonded Ceramics as an Alternative to High Temperature Composite Processing. *Materials Research Society Symposia Proceedings*, **1994**, 346, 511		6
44	Synthesis of Low-Firing Anorthite Powder by the Steric-Entrapment Route. *Ceramic Engineering and Science Proceedings*,33-40	0.1	6

43	Properties and characterization of alumina platelet reinforced geopolymer composites. *Journal of the American Ceramic Society*, **2020**, 103, 5178-5185	3.8	5
42	Thermal Expansion of Ln6WO12 (Ln = Y, Ho, Er, Yb) and Ln2WO6 (Ln = Gd, Dy, Ho) by In Situ Synchrotron X-ray Diffraction Study. *Journal of the American Ceramic Society*, **2014**, 97, 2496-2505	3.8	5
41	Processing and Characterization of Multiphase Ceramic Composites Part III: Strong, Hard and Tough, High Temperature-Stable Quadruplex and Quintuplex Composites. *Journal of the American Ceramic Society*, **2008**, 91, 799-805	3.8	5
40	Hot-stage transmission electron microscopy study of phase transformations in hexacelsian (BaAl2Si2O8). *Journal of Materials Research*, **2002**, 17, 1287-1297	2.5	5
39	TEM study of synthetic hillebrandite (Ca2SiO4 H2O). *Journal of Materials Research*, **1993**, 8, 2948-2953	2.5	5
38	Investigation of Plasma-Sprayed Dysprosia Coatings. *Journal of the American Ceramic Society*, **1989**, 72, 2023-2026	3.8	5
37	Development of a Gas-Fed Plasma Source for Pulsed High-Density Plasma/Material Interaction Studies. *IEEE Transactions on Plasma Science*, **2014**, 42, 3245-3252	1.3	4
36	Creep characteristics of alumina, nickel aluminate spinel, zirconia composites. *Journal of Materials Research*, **2008**, 23, 556-564	2.5	4
35	Processing and Characterization of Multiphase Ceramic Composites Part I: Duplex Composites Formed In Situ from Solution. *Journal of the American Ceramic Society*, **2008**, 91, 784-792	3.8	4
34	Bone ash reinforced geopolymer composites. *Journal of the American Ceramic Society*, **2021**, 104, 2767-2779	3.8	4
33	Ceramic Felt Reinforced Geopolymer Composites. *Ceramic Engineering and Science Proceedings*,11-19	0.1	4
32	In Situ Synchrotron X-Ray Diffraction Study of the Rhombohedral-to-HT-Cubic Phase Transformation in Ln6WO12 (Ln = Y, Ho, Er, Yb). *Journal of the American Ceramic Society*, **2014**, 97, 1256-1263	3.8	3
31	Synthesis and Thermal Expansion of Eucryptite Powders Produced by the Inorganic Organic Steric Entrapment Method. *Journal of the American Ceramic Society*, **2014**, 97, 3087-3091	3.8	3
30	Experimental study of embedded and non-embedded ordered granular chains under impulsive excitation. *Acta Mechanica*, **2016**, 227, 2511-2527	2.1	3
29	Relative importance of Al(V) and reinforcement to the flexural strength of geopolymer composites. *Journal of the American Ceramic Society*, **2021**, 104, 3452-3460	3.8	3
28	Amorphous self-healed, chopped basalt fiber-reinforced, geopolymer composites. *Journal of the American Ceramic Society*, **2021**, 104, 3443-3451	3.8	3
27	Mixed Alkali Regional Metakaolin-Based Geopolymer. *Ceramic Engineering and Science Proceedings*, **2017**, 123-133	0.1	2
26	Properties of Cork Particle Reinforced Sodium Geopolymer Composites. *Ceramic Engineering and Science Proceedings*, **2017**, 79-82	0.1	2

25	Reply to comments: In-situ determination of the HfO2-Ta2O5-temperature phase diagram up to 3000°C. *Journal of the American Ceramic Society*, **2019**, 102, 7028-7030	3.8	2
24	Bamboo-Geopolymer Composite: A Preliminary Study. *Ceramic Engineering and Science Proceedings*, **2017**, 135-143	0.1	2
23	Thermal Properties and Phase Transition of 2ZrO2?P2O5 Studied by In Situ Synchrotron X-ray Diffraction. *Journal of the American Ceramic Society*, **2013**, 96, 1292-1299	3.8	2
22	Geopolymer Refractories for the Glass Manufacturing Industry. *Ceramic Engineering and Science Proceedings*, **2008**, 57-80	0.1	2
21	Crystallization Mechanism of Amorphous Mullite and the Al2O3-SiO2 Phase Diagram. *Materials Research Society Symposia Proceedings*, **2001**, 702, 1		2
20	A transmission electron microscopy study on the decomposition of synthetic hillebrandite (Ca2SiO4 H2O). *Journal of Materials Research*, **1995**, 10, 3084-3095	2.5	2
19	Tailorable thermal expansion in leucite-pollucite materials derived from geopolymers for environmental barrier coatings. *Journal of the American Ceramic Society*, **2021**, 104, 3397-3410	3.8	2
18	A SiC/Combustion-Synthesized -SiAlON Composite. *Ceramic Engineering and Science Proceedings*,1154-1163	0.1	2
17	Properties Of Granite Powder Reinforced Potassium Geopolymer. *Ceramic Engineering and Science Proceedings*,1-10	0.1	2
16	Characterization of Tetragonal-Monoclinic, Ferroelastic Transformation and Domain Boundaries in Zirconia-Alloyed Yttrium Tantalate. *Microscopy and Microanalysis*, **2014**, 20, 1930-1931	0.5	1
15	Microstructure and indentation fracture of dysprosium niobate. *Journal of Materials Research*, **2005** , 20, 1422-1427	2.5	1
14	Microstructure and Interfacial Properties of Laser Ablation Coated, Fiber-Reinforced Ceramic Composite. *Ceramic Engineering and Science Proceedings*,105-112	0.1	1
13	Geopolymers and Geopolymer-Derived Composites **2021**, 424-438		1
12	An Experimental Study on the Effects of SiC on the Sintering and Mechanical Properties of Cr3C2-NiCR Cermets. *Ceramic Engineering and Science Proceedings*,271-279	0.1	1
11	Amorphous self-glazed, chopped basalt fiber reinforced, geopolymer-based composites. *International Journal of Applied Ceramic Technology*, **2021**, 18, 1097-1105	2	0
10	Thermal expansion and phase transformation in the rare earth di-titanate (RTiO) system. *Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials*, **2021**, 77, 397-407	1.8	0
9	Strength Improvements in Clay-Based Ceramic Reinforced with Discontinuous Basalt Fiber. *Ceramic Engineering and Science Proceedings*, **2017**, 227-233	0.1	
8	MICROSTRUCTURE AND FLEXURE STRENGTHS OF DOLOMITE PARTICULATE- REINFORCED GEOPOLYMER COMPOSITES. *Ceramic Engineering and Science Proceedings*, **2019**, 171-181	0.1	

List of Publications

7	Thermal Expansion and Phase Transitions up to 850 °C of a Celsian-Hexacelsian (BaAl2Si2O8) Mixture **2006**, 257-261	
6	TEM Characterization of Pseudotetragonal Mullite. *Microscopy and Microanalysis*, **2001**, 7, 426-427	0.5
5	Chemically Bonded Ceramic Matrix Composites: Densification and Conversion to Diffusion Bonding *Materials Research Society Symposia Proceedings*, **1994**, 365, 67	
4	Concepts for Energy Absorption and Dissipation in Ceramic Armor57-70	
3	Design of Oxide Composites with Debonding Interphases *Ceramic Transactions*,69-88	0.1
2	Fabrication and Grain Growth in YAG and Mullite Fibers. *Ceramic Transactions*,27-45	0.1
1	Processing and Microstructure of a Ce-DopedIN SITU O'+ SiAION Composite. *Ceramic Engineering and Science Proceedings*,1128-1137	0.1