Kevin P Plucknett

List of Publications by Year
in descending order

102	3,204	186265 28	168389 53
papers	citations	h-index	g-index

111	111	111	3033
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of carbon content on the microstructure and mechanical properties of high-entropy (Ti0.2Zr0.2Nb0.2Ta0.2Mo0.2)Cx ceramics. Journal of the European Ceramic Society, 2022, 42, 336-343.	5.7	31
2	Correlating the mechanical strength of positive electrode material particles to their capacity retention. Cell Reports Physical Science, 2022, 3, 100714.	5.6	7
3	(Hf0.99Ta0.01)B2-based ceramics prepared by pressureless sintering with boron additive. Ceramics International, 2022, 48, 8605-8611.	4.8	0
4	Fabrication and modelling of Si3N4 ceramics with radial grain alignment generated through centripetal sinter-forging. Journal of Materials Science and Technology, 2022, 126, 1-14.	10.7	8
5	Low-temperature densification of high-entropy (Ti,Zr,Nb,Ta,Mo)Câ€”Co composites with high hardness and high toughness. Journal of Advanced Ceramics, 2022, 11, 805-813.	17.4	29
6	Toughening and Strengthening Response in Ni₃Al-Bonded Titanium Carbide Cermets. International Journal of Materials Research, 2022, 92, 995-999.	0.3	0
7	Effects of the joining process on the microstructure and properties of liquid-phase-sintered SiC-SiC joints formed with Ti foil. Journal of the European Ceramic Society, 2021, 41, 225-232.	5.7	11
8	Comparison of sintering behavior and reinforcing mechanisms between 3Y-TZP/Al2O3(w) and 12Ce-TZP/Al2O3(w) composites: Combined effects of lanthanide stabilizer and Al2O3 whisker length. Journal of the European Ceramic Society, 2021, 41, 706-718.	5.7	9
9	Fabrication and properties of pressure-sintered reaction-bonded Si3N4 ceramics with addition of Eu2O3â€“MgOâ€“Y2O3. Ceramics International, 2021, 47, 935-942.	4.8	11
10	Impact of Test Conditions While Screening Lithium-Ion Batteries for Capacity Degradation in Low Earth Orbit CubeSat Space Applications. Batteries, 2021, 7, 20.	4.5	4
11	Improved toughness of spark-plasma-sintered Si3N4 ceramics by adding HfB2. Ceramics International, 2021, 47, 8717-8721.	4.8	11
12	Textured and toughened high-entropy (Ti0.2Zr0.2Hf0.2Nb0.2Ta0.2)C-SiCw ceramics. Journal of Materials Science and Technology, 2021, 94, 99-103.	10.7	21
13	Fine-grained dual-phase high-entropy ceramics derived from boro/carbothermal reduction. Journal of the European Ceramic Society, 2021, 41, 3189-3195.	5.7	30
14	Geometry and surface characteristics of H13 hot-work tool steel manufactured using laser-directed energy deposition. International Journal of Advanced Manufacturing Technology, 2021, 116, 699-718.	3.0	10
15	Precipitation hardenable TiC-Steel cermets. Wear, 2021, 477, 203804.	3.1	6
16	In Situ XRD Studies During Synthesis of Single-Crystal LiNiO₂, LiNi_{0.975}Mg_{0.025}O₂, and LiNi_{0.95}Al_{0.05}O₂ Cathode Materials. Journal of the Electrochemical Society, 2020, 167, 100501.	2.9	41
17	Reaction mechanisms of nano-sized AlN powders synthesized from dicyandiamide and its optical property. Materials Chemistry and Physics, 2020, 253, 123376.	4.0	11
18	Failure mode analysis of lithium ion batteries operated for low Earth orbit CubeSat applications. Journal of Energy Storage, 2020, 31, 101561.	8.1	13

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19	Mechanical alloying assisted spark plasma sintering of Tungsten diboride ceramics. Materials Chemistry and Physics, 2019, 237, 121848.	4.0	10
20	Continuous and symmetric graded Si3N4 ceramics designed by spark plasma sintering at 15â€¯MPa. Ceramics International, 2019, 45, 16703-16706.	4.8	16
21	Densification and Phase Transformation in Multi-Layered Graded Si3N4â€“TiN Components Produced by Field-Assisted Sintering. Materials, 2019, 12, 2900.	2.9	3
22	Resistance Growth in Lithium-Ion Pouch Cells with LiNi_{0.80}Co_{0.15}Al_{0.05}O₂ Positive Electrodes and Proposed Mechanism for Voltage Dependent Charge-Transfer Resistance. Journal of the Electrochemical Society, 2019, 166, A1779-A1784.	2.9	50
23	Microstructure and mechanical properties of high-entropy borides derived from boro/carbothermal reduction. Journal of the European Ceramic Society, 2019, 39, 3920-3924.	5.7	127
24	Understanding the elastic and thermal response in TiC-based ceramic-metal composite systems: First-principles and mechanical studies. Journal of Alloys and Compounds, 2019, 789, 712-719.	5.5	13
25	Dense high-entropy boride ceramics with ultra-high hardness. Scripta Materialia, 2019, 164, 135-139.	5.2	177
26	The effects of graphene nano-platelet additions on the sliding wear of TiC-Ni3Al cermets. Tribology International, 2019, 130, 119-132.	5.9	11
27	The Sliding Wear Response of High-Performance Cermets. , 2019, , 2249-2290.		0
28	Hertzian indentation response of TiC-316L stainless steel cermets. International Journal of Refractory Metals and Hard Materials, 2018, 72, 172-182.	3.8	6
29	The influence of Mo 2 C additions on the microstructural development and sintering response of TiN-Ni 3 Al cermets. International Journal of Refractory Metals and Hard Materials, 2018, 71, 262-272.	3.8	5
30	Cermets and Hardmetals. Metals, 2018, 8, 963.	2.3	6
31	The Sliding Wear Response of High-Performance Cermets. , 2018, , 1-42.		1
32	The Aqueous Electrochemical Response of TiCâ€“Stainless Steel Cermets. Metals, 2018, 8, 398.	2.3	6
33	The influence of Ni3Al binder content on the aqueous corrosion response of TiC and Ti(C,N) cermets. International Journal of Refractory Metals and Hard Materials, 2017, 64, 113-121.	3.8	18
34	Aqueous corrosion behaviour of TiC-304L stainless steel cermets in a 3.5 wt% NaCl solution. International Journal of Refractory Metals and Hard Materials, 2017, 66, 234-243.	3.8	9
35	Factors influencing the aqueous electrochemical response of TiCâ€“Ni3Al cermets. Journal of Materials Research, 2017, 32, 3333-3343.	2.6	5
36	Microstructural damage following reciprocating wear of TiC-stainless steel cermets. Tribology International, 2017, 105, 201-218.	5.9	18

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37	Densification behaviour and microstructural evolution of Ti-48Al consolidated by spark plasma sintering. Journal of Materials Science, 2017, 52, 613-627.	3.7	21
38	Reciprocating wear behaviour of TiC-stainless steel cermets. Tribology International, 2017, 105, 250-263.	5.9	49
39	Titanium aluminide (Ti-48Al) powder synthesis, size refinement and sintering. Advanced Powder Technology, 2017, 28, 314-323.	4.1	20
40	The effects of TiC grain size and steel binder content on the reciprocating wear behaviour of TiC-316L stainless steel cermets. Wear, 2016, 350-351, 116-129.	3.1	37
41	The effects of Mo 2 C additions on the sintering response of TiC 0.3 N 0.7 â€“Ni 3 Al cermets. International Journal of Refractory Metals and Hard Materials, 2016, 61, 98-106.	3.8	10
42	The effects of microstructure on Vickers indentation damage in TiC-316L stainless steel cermets. International Journal of Refractory Metals and Hard Materials, 2016, 61, 151-161.	3.8	19
43	The effects of C:N ratio on the aqueous corrosion response of TiC and Ti(C,N) cermets with a Ni 3 Al-based binder. International Journal of Refractory Metals and Hard Materials, 2016, 61, 162-172.	3.8	14
44	Microstructure instability in TiC-316L stainless steel cermets. International Journal of Refractory Metals and Hard Materials, 2016, 58, 74-83.	3.8	43
45	The effects of Ni₃Al binder content on the electrochemical response of melt-infiltration processed TiCâ€“Ni₃Al cermets. Canadian Metallurgical Quarterly, 2016, 55, 138-146.	1.2	2
46	The effects of Mo2C additions on the microstructure and sliding wear of TiC0.3N0.7â€“Ni3Al cermets. International Journal of Refractory Metals and Hard Materials, 2015, 50, 227-239.	3.8	30
47	A comparison of Tiâ€“Ni and Ti-Sn binary alloys processed using powder metallurgy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 644, 392-404.	5.6	24
48	Measurements of Interdiffusion Coefficients of Transition Metals in Layered Liâ€“Niâ€“Mnâ€“Co Oxide Coreâ€“Shell Materials during Sintering. Chemistry of Materials, 2015, 27, 7765-7773.	6.7	61
49	Biopolymerâ€Based Gel Casting of Ferroelectric Ceramics. Advanced Engineering Materials, 2014, 16, 684-698.	3.5	2
50	The effects of metal binder content and carbide grain size on the aqueous corrosion behaviour of TiCâ€“316L stainless steel cermets. International Journal of Refractory Metals and Hard Materials, 2014, 44, 129-141.	3.8	25
51	Kinetics of Iron Ore Reduction by Methane for Chemical Looping Combustion. Energy & Fuels, 2014, 28, 1387-1395.	5.1	48
52	The sliding wear of TiC and Ti(C,N) cermets prepared with a stoichiometric Ni3Al binder. Wear, 2014, 318, 153-167.	3.1	48
53	The reciprocating wear behaviour of TiCâ€“304L stainless steel composites prepared by melt infiltration. Wear, 2013, 303, 321-333.	3.1	43
54	Friction stir processing of Al/SiC composites fabricated by powder metallurgy. Journal of Materials Processing Technology, 2013, 213, 1900-1907.	6.3	107

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55	Effect of processing variables on production of powder metallurgical titanium. Canadian Metallurgical Quarterly, 2013, 52, 39-50.	1.2	1
56	Reciprocating wear response of Ti(C,N)â€“Ni₃Al cermets. Canadian Metallurgical Quarterly, 2013, 52, 69-80.	1.2	10
57	Thermal conductivity of tunable lamellar aluminum oxide/polymethyl methacrylate hybrid composites. Journal of Materials Research, 2012, 27, 1869-1876.	2.6	16
58	Spherical indentation damage in TiCâ€“Ni3Al composites. International Journal of Refractory Metals and Hard Materials, 2012, 30, 188-195.	3.8	21
59	The reciprocating wear behaviour of TiCâ€“Ni3Al cermets. International Journal of Refractory Metals and Hard Materials, 2012, 33, 44-52.	3.8	34
60	Influence of starch type on characteristics of porous 3Y-ZrO2 prepared from a direct consolidation casting method. Materials Research, 2011, 14, 39-45.	1.3	13
61	Agar-Based Aqueous Gel Casting of Barium Titanate Ceramics. International Journal of Applied Ceramic Technology, 2011, 8, 597-609.	2.1	9
62	A comparison of the colloidal stabilization of aqueous titanium carbide suspensions using anionic and cationic dispersants. International Journal of Refractory Metals and Hard Materials, 2011, 29, 298-305.	3.8	19
63	Processing of porous yttria-stabilized zirconia tapes: Influence of starch content and sintering temperature. Ceramics International, 2009, 35, 1783-1791.	4.8	21
64	Effect of starch filler content and sintering temperature on the processing of porous 3Yâ€“ZrO2 ceramics. Journal of Materials Processing Technology, 2009, 209, 590-598.	6.3	30
65	Influence of starch content and sintering temperature on the microstructure of porous yttria-stabilized zirconia tapes. Journal of Materials Science, 2009, 44, 2581-2589.	3.7	11
66	Aqueous Colloidal Characterization and Forming of Multimodal Barium Titanate Powders. Journal of the American Ceramic Society, 2009, 92, 2537-2543.	3.8	9
67	Sintering Behavior and Microstructure Development of Porous Silicon Nitride Ceramics Prepared in an Air Atmosphere Furnace. International Journal of Applied Ceramic Technology, 2009, 6, 702-716.	2.1	3
68	A simple method for synthesis of acicular Î²-Si3N4 seed crystals. Ceramics International, 2009, 35, 1357-1362.	4.8	11
69	Microstructural development in porous Î²-Si3N4 ceramics prepared with low volume RE2O3â€“MgOâ€“(CaO) additions (RE=La, Nd, Y, Yb). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 489, 337-350.	5.6	37
70	Processing of porous yttria-stabilized zirconia by tape-casting. Ceramics International, 2008, 34, 1983-1988.	4.8	28
71	Low-Temperature Oxidation Embrittlement of SiC (Nicalon?)/CAS Ceramic Matrix Composites. Journal of the American Ceramic Society, 2007, 90, 070922001254001-???.	3.8	3
72	Sintering Silicon Nitride Ceramics in Air. Journal of the American Ceramic Society, 2005, 88, 3538-3541.	3.8	17

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73	Effect of sucrose on agarose gels mechanical behaviour. Carbohydrate Polymers, 2003, 54, 83-95.	10.2	66
74	Influence of thermal history on the structural and mechanical properties of agarose gels. Biopolymers, 2001, 59, 131-144.	2.4	171
75	Large deformation mechanical behavior of gelatin-maltodextrin composite gels. Journal of Applied Polymer Science, 2001, 82, 124-135.	2.6	16
76	Title is missing!. Journal of Materials Science Letters, 2001, 20, 1553-1557.	0.5	9
77	Processing and Microstructure Development of Titanium Carbideâ€“Nickel Aluminide Composites Prepared by Melt Infiltration/Sintering (MIS). Journal of the American Ceramic Society, 2001, 84, 55-61.	3.8	40
78	Plane stress essential work of fracture of â€˜pseudo-ductileâ€™ gelatin/maltodextrin biopolymer gel composites. Polymer, 2000, 41, 6833-6841.	3.8	29
79	â€˜Ductileâ€™ mixed biopolymer gel composites. Polymer, 2000, 41, 2319-2323.	3.8	29
80	Joining Si₃N₄â€Based Ceramics with Oxidationâ€Formed Surface Layers. Journal of the American Ceramic Society, 2000, 83, 2925-2928.	3.8	6
81	New Insight into Agarose Gel Mechanical Properties. Biomacromolecules, 2000, 1, 730-738.	5.4	454
82	Title is missing!. Journal of Materials Science Letters, 1998, 17, 1987-1990.	0.5	8
83	Properties of Ni3Al-bonded Titanium Carbide Ceramics. Journal of the European Ceramic Society, 1998, 18, 395-400.	5.7	42
84	Flexure Strength of Meltâ€Infiltrationâ€Processed Titanium Carbide/Nickel Aluminide Composites. Journal of the American Ceramic Society, 1998, 81, 1839-1844.	3.8	39
85	Microstructural Design of Silicon Nitride with Improved Fracture Toughness: I, Effects of Grain Shape and Size. Journal of the American Ceramic Society, 1998, 81, 2821-2830.	3.8	382
86	Melt-infiltration processing of TiC/Ni3Al composites. Journal of Materials Research, 1997, 12, 2515-2517.	2.6	29
87	Inâ€situ SEM observation of the fracture behaviour of titanium carbide/nickel aluminide composites. Journal of Microscopy, 1997, 185, 206-216.	1.8	24
88	Microstructural aspects of superplastic deformation of Al2O3/ZrO2 laminate composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 219, 148-155.	5.6	5
89	Effects of zirconia additions on the superplasticity of aluminazirconia composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 221, 102-112.	5.6	24
90	High temperature mechanical and thermal stability of silicate matrix composites. Composites Part B: Engineering, 1995, 5, 1367-1378.	0.6	16

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91	Microstructural characterization of a microwave-sintered silicon nitride based ceramic. Journal of Materials Research, 1995, 10, 1387-1396.	2.6	15
92	Environmental ageing effects in a silicon carbide fibreâ€reinforced glassâ€ceramic matrix composite. Journal of Microscopy, 1995, 177, 251-263.	1.8	28
93	Tape Casting of Fine Alumina/Zirconia Powders for Composite Fabrication. Journal of the American Ceramic Society, 1994, 77, 2137-2144.	3.8	53
94	Processing of Tape-Cast Laminates Prepared from Fine Alumina/Zirconia Powders. Journal of the American Ceramic Society, 1994, 77, 2145-2153.	3.8	57
95	Microstructural Characterisation of Microwave Sintered Silicon Nitride Ceramics. Materials Research Society Symposia Proceedings, 1992, 287, 289.	0.1	4
96	Transient Viscous Phase Reaction Sintered (Tvprs) Silicon Oxynitride Ceramics.. Materials Research Society Symposia Proceedings, 1992, 287, 381.	0.1	0
97	Tape Casting Using Fine Ceramic Powders. Materials Research Society Symposia Proceedings, 1991, 249, 305.	0.1	0
98	Tape Cast Al2O3/ZrO2 Composite Laminates. Ceramic Engineering and Science Proceedings, 0, , 873-880.	0.1	5
99	Microstructure and Oxidation Behaviour of Hiped Silicon Nitride. Ceramic Engineering and Science Proceedings, 0, , 991-999.	0.1	2
100	Microstructural Development of PorousÎ²-Si3N4 Ceramics Prepared by Pressureless-Sintering Compositions in the Si-Re-O-N Quaternary Systems (Re=La, Nd, Sm, Y, Yb). , 0, , 41-48.		1
101	Compositional Design of PorousÎ²Si3N4 Prepared by Pressureless-Sintering Compositions in the Si-Y-Mg-(Ca)-O-N System. , 0, , 49-56.		1
102	PorousÎ²-Si3N4 Ceramics Prepared with Fugitive Graphite Filler. Ceramic Engineering and Science Proceedings, 0, , 281-289.	0.1	1