

William E Lee

List of Publications by Year in descending order

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116
papers

4,052
citations

94269

37
h-index

128067

60
g-index

127
all docs

127
docs citations

127
times ranked

3456
citing authors

#	ARTICLE	IF	CITATIONS
1	Glassy Wasteforms for Nuclear Waste Immobilization. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 837-851.	1.1	225
2	Relation between tolerance factor and T_c in Aurivillius compounds. Journal of Materials Research, 2001, 16, 3139-3149.	1.2	223
3	Evolution of <i>In Situ</i> Refractories in the 20th Century. Journal of the American Ceramic Society, 1998, 81, 1385-1410.	1.9	203
4	Sintering behaviour, solid solution formation and characterisation of TaC, HfC and TaCâ€“HfC fabricated by spark plasma sintering. Journal of the European Ceramic Society, 2016, 36, 1539-1548.	2.8	189
5	Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: MoAlB. Scientific Reports, 2016, 6, 26475.	1.6	141
6	Investigating the highest melting temperature materials: A laser melting study of the TaC-HfC system. Scientific Reports, 2016, 6, 37962.	1.6	140
7	Oxidation behaviour of SiC/SiC ceramic matrix composites in air. Journal of the European Ceramic Society, 2016, 36, 3293-3302.	2.8	132
8	Phase stability and interfacial structures in the SrOâ€“SrTiO ₃ system. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 75, 833-846.	0.8	127
9	Thermal Properties of Rareâ€“Earth Monosilicates for EBC on Siâ€“Based Ceramic Composites. Journal of the American Ceramic Society, 2016, 99, 589-596.	1.9	125
10	Flash Spark Plasma Sintering (FSPS) of Pure ZrB_2 . Journal of the American Ceramic Society, 2014, 97, 2405-2408.	1.9	116
11	Synthesis and DFT investigation of new bismuth-containing MAX phases. Scientific Reports, 2016, 6, 18829.	1.6	97
12	Reactive infiltration processing (RIP) of ultra high temperature ceramics (UHTC) into porous C/C composite tubes. Journal of the European Ceramic Society, 2011, 31, 361-368.	2.8	94
13	The ion exchange phase in corrosion of nuclear waste glasses. Journal of Nuclear Materials, 2006, 358, 57-68.	1.3	91
14	Attempts to synthesise quaternary MAX phases $(\text{Zr},\text{M})_2\text{AlC}$ and $\text{Zr}_2(\text{Al},\text{A})\text{C}$ as a way to approach Zr_2AlC . Materials Research Letters, 2016, 4, 137-144.	4.1	71
15	Corrosion of MgO â€“ MgAl_2O_4 Spinel Refractory Bricks by Calcium Aluminosilicate Slag. Journal of the American Ceramic Society, 1997, 80, 461-471.	1.9	68
16	Isothermal and Cyclic Oxidation of MoAlB in Air from 1100â€“C to 1400â€“C. Journal of the Electrochemical Society, 2017, 164, C930-C938.	1.3	67
17	<i>In situ</i> Formation of Oxidation Resistant Refractory Coatings on SiC â€“Reinforced ZrB_2 Ultra High Temperature Ceramics. Journal of the American Ceramic Society, 2012, 95, 1247-1254.	1.9	66
18	The â€“Direct Bondâ€“in Magnesite Chromite and Magnesite Spinel Refractories. Journal of the American Ceramic Society, 1995, 78, 1753-1760.	1.9	63

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19	Synthesis and physical properties of $(Zr_{1-x}Ti_x)_3Al_2MAX$ phases. Journal of the American Ceramic Society, 2017, 100, 3393-3401.	1.9	63
20	Connectivity and glass transition in disordered oxide systems. Journal of Non-Crystalline Solids, 2010, 356, 2534-2540.	1.5	56
21	Microstructural Development on Crystallizing Hot-Pressed Pellets of Cordierite Melt-derived Glass Containing B_2O_3 and P_2O_5 . Journal of the American Ceramic Society, 1996, 79, 705-713.	1.9	54
22	Topologically disordered systems at the glass transition. Journal of Physics Condensed Matter, 2006, 18, 11507-11520.	0.7	54
23	Corrosion of alkali-borosilicate waste glass K-26 in non-saturated conditions. Journal of Nuclear Materials, 2005, 340, 12-24.	1.3	52
24	Influence of Additives on Slag Resistance of $Al_2O_3-SiO_2-SiC$ Refractory Bond Phases under Reducing Atmosphere. Journal of the American Ceramic Society, 1998, 81, 3177-3188.	1.9	51
25	Effects of Octahedral Tilting on the Piezoelectric Properties of Strontium/Barium/Niobium-Doped Soft Lead Zirconate Titanate Ceramics. Journal of the American Ceramic Society, 2002, 85, 2337-2344.	1.9	51
26	Crystallisation of a simulated borosilicate high-level waste glass produced on a full-scale vitrification line. Journal of Non-Crystalline Solids, 2011, 357, 2989-3001.	1.5	51
27	Tungsten carbide is more oxidation resistant than tungsten when processed to full density. Scripta Materialia, 2016, 116, 67-70.	2.6	50
28	Viscosity of network liquids within Doremus approach. Journal of Applied Physics, 2004, 95, 3803-3810.	1.1	49
29	Crystallization of Celsian ($BaAl_2Si_2O_8$) Glass. Journal of the American Ceramic Society, 1995, 78, 2180-2186.	1.9	46
30	Laser Melting of Zirconium Carbide: Determination of Phase Transitions in Refractory Ceramic Systems. Journal of the American Ceramic Society, 2011, 94, 3561-3569.	1.9	45
31	Experimental synthesis and density functional theory investigation of radiation tolerance of $Zr_3(Al_{1-x}S_x)_2C_2MAX$ phases. Journal of the American Ceramic Society, 2017, 100, 1377-1387.	1.9	45
32	Novel low temperature synthesis and characterisation of hollow silicon carbide spheres. Microporous and Mesoporous Materials, 2012, 152, 25-30.	2.2	43
33	Molten salt synthesis and characterization of SiC coated carbon black particles for refractory castable applications. Journal of the European Ceramic Society, 2013, 33, 2023-2029.	2.8	43
34	Alkali ion exchange in γ -irradiated glasses. Journal of Nuclear Materials, 2004, 335, 425-432.	1.3	42
35	Zirconium carbide oxidation: Kinetics and oxygen diffusion through the intermediate layer. Journal of the American Ceramic Society, 2018, 101, 2638-2652.	1.9	40
36	Thermal properties of C f /HfC and C f /HfC-SiC composites prepared by precursor infiltration and pyrolysis. Journal of the European Ceramic Society, 2018, 38, 2297-2303.	2.8	38

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37	Complex Phase Equilibria in Refractories Design and Use. Journal of the American Ceramic Society, 2002, 85, 2911-2918.	1.9	37
38	Crystallization Behavior of CaO-P2O5 Glass with TiO2, SiO2, and Al2O3 Additions. Journal of the American Ceramic Society, 1992, 75, 1641-1647.	1.9	34
39	Planar intergrowth structures in the ZnO-In2O3 system. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 76, 1187-1201.	0.8	34
40	Surface Decomposition of Strontium-Doped Soft PbZrO ₃ -PbTiO ₃ . Journal of the American Ceramic Society, 2002, 85, 207-212.	1.9	29
41	On the stoichiometry of zirconium carbide. Scientific Reports, 2020, 10, 6347.	1.6	28
42	Interface properties of Ti3SiC2/Al2O3 ceramics: Combined experiments and first-principles calculations. Ceramics International, 2021, 47, 6409-6417.	2.3	28
43	Radioactive waste management and contaminated site clean-up. , 2013, , .		28
44	Laser Melting of Spark Plasma-Sintered Zirconium Carbide: Thermophysical Properties of a Generation IV Very High-Temperature Reactor Material. International Journal of Applied Ceramic Technology, 2010, 7, 316-326.	1.1	27
45	Experimental and DFT investigation of (Cr,Ti) ₃ AlC ₂ MAX phases stability. Materials Research Letters, 2017, 5, 144-157.	4.1	27
46	Oxidation resistant tungsten carbide hardmetals. International Journal of Refractory Metals and Hard Materials, 2017, 66, 135-143.	1.7	25
47	Stoichiometry deviation in amorphous zirconium dioxide. RSC Advances, 2019, 9, 16320-16327.	1.7	25
48	The role of ceramic and glass science research in meeting societal challenges: Report from an NSF-sponsored workshop. Journal of the American Ceramic Society, 2017, 100, 1777-1803.	1.9	23
49	Microstructural Evolution during Pressureless Sintering of Lead Lanthanum Zirconate Titanate Ceramics with Excess Lead(II) Oxide. Journal of the American Ceramic Society, 1995, 78, 2417-2424.	1.9	21
50	A candidate fusion engineering material, WC-FeCr. Scripta Materialia, 2018, 155, 129-133.	2.6	21
51	Domain structure-property relations in lead lanthanum zirconate titanate ceramics. Journal of Materials Research, 1996, 11, 2293-2301.	1.2	20
52	Crystal Structures of Al-Nd Codoped Zirconolite Derived from Glass Matrix and Powder Sintering. Inorganic Chemistry, 2015, 54, 7353-7361.	1.9	20
53	Effect of Nucleating Agents on the Crystallization of Calcium Phosphate Glasses. Journal of the American Ceramic Society, 1996, 79, 1934-1944.	1.9	18
54	In Situ Formation of Silicon Carbide Nanofibers on Cordierite Substrates. Journal of the American Ceramic Society, 2007, 90, 1603-1606.	1.9	18

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55	Class Composite Materials for Nuclear and Hazardous Waste Immobilisation. Materials Research Society Symposia Proceedings, 2008, 1107, 1.	0.1	18
56	Microstructure and rheological properties of titanium carbide-coated carbon black particles synthesised from molten salt. Journal of Materials Science, 2013, 48, 6269-6275.	1.7	17
57	Enhanced oxidation resistance of ZrB ₂ /SiC composite through in situ reaction of gadolinium oxide in patterned surface cavities. Journal of the European Ceramic Society, 2014, 34, 4157-4166.	2.8	16
58	Structure and properties of amorphous uranium dioxide. Acta Materialia, 2021, 202, 366-375.	3.8	16
59	Diffusion-based and creep continuum damage modelling of crack formation during high temperature oxidation of ZrN ceramics. Journal of the European Ceramic Society, 2016, 36, 2341-2349.	2.8	15
60	Impact of microwave processing on porcelain microstructure. Ceramics International, 2017, 43, 13765-13771.	2.3	15
61	Radiation-induced microcrystal shape change as a mechanism of wastefrom degradation. Journal of Nuclear Materials, 2018, 501, 162-171.	1.3	15
62	Analysis of Planar Defects in Nb ₂ O ₅ - and Bi ₂ O ₃ -doped BaTiO ₃ Ceramics. Journal of Materials Science, 1998, 33, 5759-5771.	1.7	12
63	A standards based approach to enabling legacy applications on the Grid. Future Generation Computer Systems, 2008, 24, 731-743.	4.9	12
64	Densification behaviour and physico-mechanical properties of porcelains prepared using spark plasma sintering. Advances in Applied Ceramics, 2017, 116, 307-315.	0.6	12
65	Impact of spark plasma sintering (SPS) on mullite formation in porcelains. Journal of the American Ceramic Society, 2018, 101, 525-535.	1.9	12
66	Space Group Determination of Ba _{6-3x} Nd _{8+2x} Ti ₁₈ O ₅₄ . Journal of the American Ceramic Society, 1999, 82, 1336-1338.	1.9	11
67	Crystallization of Barium Osumilite Glass. Journal of the American Ceramic Society, 1999, 82, 3200-3208.	1.9	11
68	An investigation of the long-range and local structure of sub-stoichiometric zirconium carbide sintered at different temperatures. Scientific Reports, 2020, 10, 3096.	1.6	11
69	Prediction of the effect of additives on slag resistance of Al ₂ O ₃ -SiO ₂ -SiC-C bond phases in air. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2003, 27, 115-125.	0.7	10
70	Crystallization Hierarchy of CaO-P ₂ O ₅ -SiO ₂ -Al ₂ O ₃ -TiO ₂ Glass-Ceramics. Journal of the American Ceramic Society, 1998, 81, 2237-2244.	1.9	10
71	Ablation resistance of tungsten carbide cermets under extreme conditions. International Journal of Refractory Metals and Hard Materials, 2020, 93, 105356.	1.7	10
72	Diffusion in doped and undoped amorphous zirconia. Journal of Nuclear Materials, 2021, 555, 153108.	1.3	10

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73	Effect of Sodium on Microstructures and Thermoelastic Properties of Calcium Aluminate Cementâ€“Bonded Refractories. Journal of the American Ceramic Society, 2016, 99, 1079-1085.	1.9	9
74	Uranium carbide oxidation from 873 K to 1173 K. Corrosion Science, 2019, 151, 44-56.	3.0	9
75	Corrosion of archaeological model glasses after 32 years of burial at Ballidon. Materials Research Society Symposia Proceedings, 2006, 932, 1.	0.1	8
76	Microstructure and Highâ€“temperature Oxidation Behavior of $\text{Ti}_3\text{AlC}_2\text{W}$ Composites. Journal of the American Ceramic Society, 2013, 96, 584-591.	1.9	8
77	Optically-transparent oxide fibre-reinforced glass matrix composites. Journal of Non-Crystalline Solids, 2010, 356, 2591-2597.	1.5	7
78	Evidence of excess oxygen accommodation in yttria partially-stabilized zirconia. Scripta Materialia, 2020, 175, 7-10.	2.6	7
79	<i>In Situ</i> Sintering of Waste Forms in an Underground Disposal Environment. Materials Research Society Symposia Proceedings, 2003, 807, 706.	0.1	6
80	Durability of hot uniaxially pressed Synroc derivative wastefrom for EURO-GANEX wastes. Journal of Nuclear Materials, 2018, 509, 43-53.	1.3	6
81	<i>Temperature-induced corneal shrinkage</i> . , 1996, , .		5
82	Crystallisation Within Simulated High Level Waste Borosilicate Glass. Materials Research Society Symposia Proceedings, 2004, 824, 252.	0.1	5
83	Second Phaseâ€“Induced Degradation of Fused MgO Partially Stabilized Zirconia Aggregates. Journal of the American Ceramic Society, 2015, 98, 1364-1371.	1.9	5
84	Thermal footprint of a geological disposal facility containing EURO-GANEX wasteforms. Progress in Nuclear Energy, 2020, 118, 103065.	1.3	5
85	Reactions and emissivity of cerium oxide with phosphate binder coating on basic refractory brick. International Journal of Applied Ceramic Technology, 2020, 17, 668-676.	1.1	5
86	<i>Laser surgical unit for photoablative and photothermal keratoplasty</i> . , 1991, , .		5
87	Preparation and characterization of UO_2 -based AGR SIMFuel. Materials Research Society Symposia Proceedings, 2014, 1665, 245-251.	0.1	4
88	Ba ₆ -3XNd ₈ +2XTi ₁₈ O ₅₄ Microwave dielectric resonators. Ferroelectrics, 1999, 223, 293-300.	0.3	3
89	Synthesis and characterisation of transition metal substituted barium hollandite ceramics. Materials Research Society Symposia Proceedings, 2006, 932, 1.	0.1	3
90	Atomistic modeling approach to the thermodynamics of sodium silicate glasses. Journal of the American Ceramic Society, 2021, 104, 1331-1344.	1.9	3

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91	HfB ₂ ceramic polycrystals: A low-temperature metal-like ceramic at high temperatures?. Scripta Materialia, 2021, 203, 114037.	2.6	3
92	Atomic-scale description of interfaces in rutile/sodium silicate glass/crystal composites. Physical Chemistry Chemical Physics, 2018, 20, 17624-17636.	1.3	3
93	The accommodation of lithium in bulk ZrO ₂ . Solid State Ionics, 2021, 373, 115813.	1.3	3
94	Vapour Phase Hydration of Blended Oxide - Magnox Waste Glasses. Materials Research Society Symposia Proceedings, 2003, 807, 224.	0.1	2
95	Analytical STEM of Borosilicate Glasses Containing Molybdates.. Materials Research Society Symposia Proceedings, 2004, 824, 372.	0.1	2
96	Molten ceramic solidification during molten state processing of HLW. Materials Research Society Symposia Proceedings, 2006, 932, 1.	0.1	2
97	Royal College examination fees surplus. The Psychiatrist, 2012, 36, 273-274.	0.3	2
98	About U(t) form of pH-dependence of glass corrosion rates at zero surface to volume ratio. Materials Research Society Symposia Proceedings, 2015, 1744, 153-161.	0.1	2
99	Destruction of Micro-crystal Containing Wasteforms by Charge-induced Crystal Shape Change on Self-irradiation. MRS Advances, 2017, 2, 621-626.	0.5	2
100	Ceramics in the nuclear fuel cycle. , 2020, , 63-87.		2
101	Predicting the thermal expansion of body-centred cubic (BCC) high entropy alloys in the Mo-Nb-Ta-Ti-W system. JPhys Energy, 2022, 4, 034002.	2.3	2
102	Microstructures of alkoxide-derived barium osumilite (BaMg ₂ Al ₆ Si ₉ O ₃₀) glass ceramics. Journal of Sol-Gel Science and Technology, 1997, 8, 381-384.	1.1	1
103	Vapour Phase Hydration of Magnox Waste Glass. Materials Research Society Symposia Proceedings, 2002, 757, II5.10.1.	0.1	1
104	Glass-Ceramic Formation in the ZnO-P ₂ O ₅ System and the Effect of Silica as a Nucleating Agent. Journal of the American Ceramic Society, 1999, 82, 2239-2245.	1.9	1
105	Where next for rigorous CAM research?. Focus on Alternative and Complementary Therapies, 2012, 17, 211-215.	0.1	1
106	Characterization Of Titanium Diffusion During Fabrication Of LiNbO ₃ Optical Waveguides Using Analytical Electron Microscopy. Proceedings of SPIE, 1989, 0994, 232.	0.8	0
107	Restoring accommodation: surgical technique and preliminary evaluation in rabbits. , 1999, ,		0
108	Origin of Ferroelectricity in Aurivillius Compounds. Materials Research Society Symposia Proceedings, 2000, 658, 1191.	0.1	0

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109	Complex Phase Equilibria in Refractories Design and Use. ChemInform, 2003, 34, no.	0.1	0
110	A Study of Magnox Waste Glass Under Conditions of High Temperature, Very Deep, Geological Disposal. Materials Research Society Symposia Proceedings, 2003, 807, 218.	0.1	0
111	Kinetics of alkali ion exchange of irradiated glasses. Materials Research Society Symposia Proceedings, 2003, 792, 233.	0.1	0
112	Endocapsular hyperthermia probe to prevent posterior capsular opacification. , 2005, , .		0
113	Stage position measurement for e-beam lithography tool. , 2007, , .		0
114	What is it that makes alternative medicine "alternative"? Focus on Alternative and Complementary Therapies, 2012, 17, 2-3.	0.1	0
115	Durability studies of simulated UK high level waste glass. Materials Research Society Symposia Proceedings, 2014, 1665, 291-296.	0.1	0
116	Materials challenges for successful roll-out of commercial fusion reactors. JPhys Energy, 2022, 4, 030401.	2.3	0