

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 | 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 |
| 2 | Materials challenges for successful roll-out of commercial fusion reactors. JPhys Energy, 2022, 4, 030401. | 2.3 | 0 |
| 3 | Structure and properties of amorphous uranium dioxide. Acta Materialia, 2021, 202, 366-375. | 3.8 | 16 |
| 4 | Atomistic modeling approach to the thermodynamics of sodium silicate glasses. Journal of the American Ceramic Society, 2021, 104, 1331-1344. | 1.9 | 3 |
| 5 | Interface properties of Ti3SiC2/Al2O3 ceramics: Combined experiments and first-principles calculations. Ceramics International, 2021, 47, 6409-6417. | 2.3 | 28 |
| 6 | HfB2 ceramic polycrystals: A low-temperature metal-like ceramic at high temperatures?. Scripta Materialia, 2021, 203, 114037. | 2.6 | 3 |
| 7 | Diffusion in doped and undoped amorphous zirconia. Journal of Nuclear Materials, 2021, 555, 153108. | 1.3 | 10 |
| 8 | The accommodation of lithium in bulk ZrO2. Solid State Ionics, 2021, 373, 115813. | 1.3 | 3 |
| 9 | Thermal footprint of a geological disposal facility containing EURO-GANEX wasteforms. Progress in Nuclear Energy, 2020, 118, 103065. | 1.3 | 5 |
| 10 | Evidence of excess oxygen accommodation in yttria partially-stabilized zirconia. Scripta Materialia, 2020, 175, 7-10. | 2.6 | 7 |
| 11 | 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 |
| 12 | Ceramics in the nuclear fuel cycle. , 2020, , 63-87. | | 2 |
| 13 | Ablation resistance of tungsten carbide cermets under extreme conditions. International Journal of Refractory Metals and Hard Materials, 2020, 93, 105356. | 1.7 | 10 |
| 14 | 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 |
| 15 | On the stoichiometry of zirconium carbide. Scientific Reports, 2020, 10, 6347. | 1.6 | 28 |
| 16 | Stoichiometry deviation in amorphous zirconium dioxide. RSC Advances, 2019, 9, 16320-16327. | 1.7 | 25 |
| 17 | Uranium carbide oxidation from 873 K to 1173 K. Corrosion Science, 2019, 151, 44-56. | 3.0 | 9 |
| 18 | Zirconium carbide oxidation: Kinetics and oxygen diffusion through the intermediate layer. Journal of the American Ceramic Society, 2018, 101, 2638-2652. | 1.9 | 40 |

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|----|--|-----|-----------|
| 19 | Radiation-induced microcrystal shape change as a mechanism of wastefrom degradation. Journal of Nuclear Materials, 2018, 501, 162-171. | 1.3 | 15 |
| 20 | 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 |
| 21 | Impact of spark plasma sintering (SPS) on mullite formation in porcelains. Journal of the American Ceramic Society, 2018, 101, 525-535. | 1.9 | 12 |
| 22 | A candidate fusion engineering material, WC-FeCr. Scripta Materialia, 2018, 155, 129-133. | 2.6 | 21 |
| 23 | Durability of hot uniaxially pressed Synroc derivative wastefrom for EURO-GANEX wastes. Journal of Nuclear Materials, 2018, 509, 43-53. | 1.3 | 6 |
| 24 | Atomic-scale description of interfaces in rutile/sodium silicate glassâ€“crystal composites. Physical Chemistry Chemical Physics, 2018, 20, 17624-17636. | 1.3 | 3 |
| 25 | The role of ceramic and glass science research in meeting societal challenges: Report from an <scp>NSF</scp>â€“sponsored workshop. Journal of the American Ceramic Society, 2017, 100, 1777-1803. | 1.9 | 23 |
| 26 | Synthesis and physical properties of (Zr_{1âˆ“x},Ti_x)₃AlC₂<scp>MAX</scp> phases. Journal of the American Ceramic Society, 2017, 100, 3393-3401. | 1.9 | 63 |
| 27 | Densification behaviour and physico-mechanical properties of porcelains prepared using spark plasma sintering. Advances in Applied Ceramics, 2017, 116, 307-315. | 0.6 | 12 |
| 28 | Experimental synthesis and density functional theory investigation of radiation tolerance of Zr₃(Al_{1âˆ“x}S_x)₂C₂<scp>MAX</scp> phases. Journal of the American Ceramic Society, 2017, 100, 1377-1387. | 1.9 | 45 |
| 29 | Oxidation resistant tungsten carbide hardmetals. International Journal of Refractory Metals and Hard Materials, 2017, 66, 135-143. | 1.7 | 25 |
| 30 | 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 |
| 31 | Destruction of Micro-crystal Containing Wasteforms by Charge-induced Crystal Shape Change on Self-irradiation. MRS Advances, 2017, 2, 621-626. | 0.5 | 2 |
| 32 | Impact of microwave processing on porcelain microstructure. Ceramics International, 2017, 43, 13765-13771. | 2.3 | 15 |
| 33 | Experimental and DFT investigation of (Cr,Ti)₃AlC₂ MAX phases stability. Materials Research Letters, 2017, 5, 144-157. | 4.1 | 27 |
| 34 | Thermal Properties of Rareâ€“Earth Monosilicates for <scp>EBC</scp> on Siâ€“Based Ceramic Composites. Journal of the American Ceramic Society, 2016, 99, 589-596. | 1.9 | 125 |
| 35 | 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 |
| 36 | Investigating the highest melting temperature materials: A laser melting study of the TaC-HfC system. Scientific Reports, 2016, 6, 37962. | 1.6 | 140 |

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|----|--|-----|-----------|
| 37 | Synthesis and DFT investigation of new bismuth-containing MAX phases. Scientific Reports, 2016, 6, 18829. | 1.6 | 97 |
| 38 | Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: MoAlB. Scientific Reports, 2016, 6, 26475. | 1.6 | 141 |
| 39 | Oxidation behaviour of SiC/SiC ceramic matrix composites in air. Journal of the European Ceramic Society, 2016, 36, 3293-3302. | 2.8 | 132 |
| 40 | 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 |
| 41 | Tungsten carbide is more oxidation resistant than tungsten when processed to full density. Scripta Materialia, 2016, 116, 67-70. | 2.6 | 50 |
| 42 | Attempts to synthesise quaternary MAX phases (Zr,M) ₂ AlC and Zr ₂ (Al,A)C as a way to approach Zr ₂ AlC. Materials Research Letters, 2016, 4, 137-144. | 4.1 | 71 |
| 43 | 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 |
| 44 | 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 |
| 45 | Second Phaseâ€“Induced Degradation of Fused MgO Partially Stabilized Zirconia Aggregates. Journal of the American Ceramic Society, 2015, 98, 1364-1371. | 1.9 | 5 |
| 46 | Crystal Structures of Alâ€“Nd Codoped Zirconolite Derived from Glass Matrix and Powder Sintering. Inorganic Chemistry, 2015, 54, 7353-7361. | 1.9 | 20 |
| 47 | Durability studies of simulated UK high level waste glass. Materials Research Society Symposia Proceedings, 2014, 1665, 291-296. | 0.1 | 0 |
| 48 | Preparation and characterization of UO ₂ -based AGR SIMFuel. Materials Research Society Symposia Proceedings, 2014, 1665, 245-251. | 0.1 | 4 |
| 49 | Flash Spark Plasma Sintering (FSPS) of Pure ZrB ₂ . Journal of the American Ceramic Society, 2014, 97, 2405-2408. | 1.9 | 116 |
| 50 | 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 |
| 51 | 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 |
| 52 | 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 |
| 53 | Microstructure and High-temperature Oxidation Behavior of Ti ₃ AlC ₂ /W Composites. Journal of the American Ceramic Society, 2013, 96, 584-591. | 1.9 | 8 |
| 54 | Radioactive waste management and contaminated site clean-up. , 2013, , . | | 28 |

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|----|---|-----|-----------|
| 55 | Where next for rigorous CAM research?. Focus on Alternative and Complementary Therapies, 2012, 17, 211-215. | 0.1 | 1 |
| 56 | Royal College examination fees surplus. The Psychiatrist, 2012, 36, 273-274. | 0.3 | 2 |
| 57 | <i>In situ</i> Formation of Oxidation Resistant Refractory Coatings on SiC -Reinforced ZrB_2 Ultra High Temperature Ceramics. Journal of the American Ceramic Society, 2012, 95, 1247-1254. | 1.9 | 66 |
| 58 | Novel low temperature synthesis and characterisation of hollow silicon carbide spheres. Microporous and Mesoporous Materials, 2012, 152, 25-30. | 2.2 | 43 |
| 59 | What is it that makes alternative medicine "alternative"? Focus on Alternative and Complementary Therapies, 2012, 17, 2-3. | 0.1 | 0 |
| 60 | 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 |
| 61 | 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 |
| 62 | Glassy Wasteforms for Nuclear Waste Immobilization. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 837-851. | 1.1 | 225 |
| 63 | 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 |
| 64 | 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 |
| 65 | Connectivity and glass transition in disordered oxide systems. Journal of Non-Crystalline Solids, 2010, 356, 2534-2540. | 1.5 | 56 |
| 66 | Optically-transparent oxide fibre-reinforced glass matrix composites. Journal of Non-Crystalline Solids, 2010, 356, 2591-2597. | 1.5 | 7 |
| 67 | A standards based approach to enabling legacy applications on the Grid. Future Generation Computer Systems, 2008, 24, 731-743. | 4.9 | 12 |
| 68 | Glass Composite Materials for Nuclear and Hazardous Waste Immobilisation. Materials Research Society Symposia Proceedings, 2008, 1107, 1. | 0.1 | 18 |
| 69 | Stage position measurement for e-beam lithography tool. , 2007, , . | | 0 |
| 70 | In Situ Formation of Silicon Carbide Nanofibers on Cordierite Substrates. Journal of the American Ceramic Society, 2007, 90, 1603-1606. | 1.9 | 18 |
| 71 | Topologically disordered systems at the glass transition. Journal of Physics Condensed Matter, 2006, 18, 11507-11520. | 0.7 | 54 |
| 72 | Molten ceramic solidification during molten state processing of HLW. Materials Research Society Symposia Proceedings, 2006, 932, 1. | 0.1 | 2 |

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|----|--|-----|-----------|
| 73 | The ion exchange phase in corrosion of nuclear waste glasses. Journal of Nuclear Materials, 2006, 358, 57-68. | 1.3 | 91 |
| 74 | Corrosion of archaeological model glasses after 32 years of burial at Ballidon. Materials Research Society Symposia Proceedings, 2006, 932, 1. | 0.1 | 8 |
| 75 | Synthesis and characterisation of transition metal substituted barium hollandite ceramics. Materials Research Society Symposia Proceedings, 2006, 932, 1. | 0.1 | 3 |
| 76 | Endocapsular hyperthermia probe to prevent posterior capsular opacification. , 2005, , . | | 0 |
| 77 | Corrosion of alkali borosilicate waste glass K-26 in non-saturated conditions. Journal of Nuclear Materials, 2005, 340, 12-24. | 1.3 | 52 |
| 78 | Viscosity of network liquids within Doremus approach. Journal of Applied Physics, 2004, 95, 3803-3810. | 1.1 | 49 |
| 79 | Crystallisation Within Simulated High Level Waste Borosilicate Glass. Materials Research Society Symposia Proceedings, 2004, 824, 252. | 0.1 | 5 |
| 80 | Analytical STEM of Borosilicate Glasses Containing Molybdates.. Materials Research Society Symposia Proceedings, 2004, 824, 372. | 0.1 | 2 |
| 81 | Alkali ion exchange in γ -irradiated glasses. Journal of Nuclear Materials, 2004, 335, 425-432. | 1.3 | 42 |
| 82 | Complex Phase Equilibria in Refractories Design and Use. ChemInform, 2003, 34, no. | 0.1 | 0 |
| 83 | Prediction of the effect of additives on slag resistance of $Al_2O_3-SiO_2-SiC-C$ bond phases in air. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2003, 27, 115-125. | 0.7 | 10 |
| 84 | 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 |
| 85 | <i>In Situ</i> Sintering of Waste Forms in an Underground Disposal Environment. Materials Research Society Symposia Proceedings, 2003, 807, 706. | 0.1 | 6 |
| 86 | Vapour Phase Hydration of Blended Oxide - Magnox Waste Glasses. Materials Research Society Symposia Proceedings, 2003, 807, 224. | 0.1 | 2 |
| 87 | Kinetics of alkali ion exchange of irradiated glasses. Materials Research Society Symposia Proceedings, 2003, 792, 233. | 0.1 | 0 |
| 88 | Vapour Phase Hydration of Magnox Waste Glass. Materials Research Society Symposia Proceedings, 2002, 757, II5.10.1. | 0.1 | 1 |
| 89 | 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 |
| 90 | Surface Decomposition of Strontium-Doped Soft $PbZrO_3$ - $PbTiO_3$. Journal of the American Ceramic Society, 2002, 85, 207-212. | 1.9 | 29 |

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| 91 | Complex Phase Equilibria in Refractories Design and Use. Journal of the American Ceramic Society, 2002, 85, 2911-2918. | 1.9 | 37 |
| 92 | Relation between tolerance factor and $\langle i \rangle T \langle /i \rangle \langle sub \rangle c \langle /sub \rangle$ in Aurivillius compounds. Journal of Materials Research, 2001, 16, 3139-3149. | 1.2 | 223 |
| 93 | Origin of Ferroelectricity in Aurivillius Compounds. Materials Research Society Symposia Proceedings, 2000, 658, 1191. | 0.1 | 0 |
| 94 | Ba ₆ -3XNd ₈ +2XTi ₁₈ O ₅₄ Microwave dielectric resonators. Ferroelectrics, 1999, 223, 293-300. | 0.3 | 3 |
| 95 | Restoring accommodation: surgical technique and preliminary evaluation in rabbits. , 1999, , . | | 0 |
| 96 | Space Group Determination of Ba ₆ €xNd _{8+2x} Ti ₁₈ O ₅₄ . Journal of the American Ceramic Society, 1999, 82, 1336-1338. | 1.9 | 11 |
| 97 | Crystallization of Barium Osumilite Glass. Journal of the American Ceramic Society, 1999, 82, 3200-3208. | 1.9 | 11 |
| 98 | 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 |
| 99 | 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 |
| 100 | Influence of Additives on Slag Resistance of Al ₂ O ₃ €SiO ₂ €SiC€C Refractory Bond Phases under Reducing Atmosphere. Journal of the American Ceramic Society, 1998, 81, 3177-3188. | 1.9 | 51 |
| 101 | Evolution of $\langle i \rangle$ in Situ $\langle /i \rangle$ Refractories in the 20th Century. Journal of the American Ceramic Society, 1998, 81, 1385-1410. | 1.9 | 203 |
| 102 | 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 |
| 103 | Phase stability and interfacial structures in the SrO€SrTiO ₃ system. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 75, 833-846. | 0.8 | 127 |
| 104 | Planar intergrowth structures in the ZnO-In ₂ O ₃ system. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 76, 1187-1201. | 0.8 | 34 |
| 105 | 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 |
| 106 | Corrosion of MgO€MgAl ₂ O ₄ Spinel Refractory Bricks by Calcium Aluminosilicate Slag. Journal of the American Ceramic Society, 1997, 80, 461-471. | 1.9 | 68 |
| 107 | Domain structure-property relations in lead lanthanum zirconate titanate ceramics. Journal of Materials Research, 1996, 11, 2293-2301. | 1.2 | 20 |
| 108 | $\langle title \rangle$ Temperature-induced corneal shrinkage $\langle /title \rangle$. , 1996, , . | | 5 |

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| 109 | Effect of Nucleating Agents on the Crystallization of Calcium Phosphate Glasses. Journal of the American Ceramic Society, 1996, 79, 1934-1944. | 1.9 | 18 |
| 110 | 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 |
| 111 | Crystallization of Celsian ($BaAl_2Si_2O_8$) Glass. Journal of the American Ceramic Society, 1995, 78, 2180-2186. | 1.9 | 46 |
| 112 | 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 |
| 113 | The "Direct Bond" in Magnesia Chromite and Magnesia Spinel Refractories. Journal of the American Ceramic Society, 1995, 78, 1753-1760. | 1.9 | 63 |
| 114 | Crystallization Behavior of $CaO-P_2O_5$ Glass with TiO_2 , SiO_2 , and Al_2O_3 Additions. Journal of the American Ceramic Society, 1992, 75, 1641-1647. | 1.9 | 34 |
| 115 | <title>Laser surgical unit for photoablative and photothermal keratoplasty</title>. , 1991, , . | | 5 |
| 116 | Characterization Of Titanium Diffusion During Fabrication Of $LiNbO_3$ Optical Waveguides Using Analytical Electron Microscopy. Proceedings of SPIE, 1989, 0994, 232. | 0.8 | 0 |