Ludger Weber

List of Publications by Year in descending order

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Version: 2024-02-01

59 papers	1,952 citations	279798 23 h-index	254184 43 g-index
62 all docs	62 docs citations	62 times ranked	1542 citing authors

#	Article	IF	Citations
1	On the influence of active element content on the thermal conductivity and thermal expansion of Cuâ€“X (X=Cr, B) diamond composites. Scripta Materialia, 2007, 57, 988-991.	5.2	251
2	Thermal Boundary Conductance: A Materials Science Perspective. Annual Review of Materials Research, 2016, 46, 433-463.	9.3	185
3	Thermal conductivity of Alâ€“SiC composites with monomodal and bimodal particle size distribution. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 480, 483-488.	5.6	144
4	Thermal conductivity of aluminum matrix composites reinforced with mixtures of diamond and SiC particles. Scripta Materialia, 2008, 58, 393-396.	5.2	117
5	On the electrical conductivity of metal matrix composites containing high volume fractions of non-conducting inclusions. Acta Materialia, 2003, 51, 3199-3211.	7.9	102
6	Influence of damage on the tensile behaviour of pure aluminium reinforced with â‰¥40 vol. pct alumina particles. Acta Materialia, 2001, 49, 3699-3709.	7.9	86
7	Quantification of microdamage phenomena during tensile straining of high volume fraction particle reinforced aluminium. Acta Materialia, 2001, 49, 497-505.	7.9	68
8	In situ flow stress of pure aluminium constrained by tightly packed alumina fibres. Acta Materialia, 2009, 57, 1795-1812.	7.9	60
9	On the influence of the shape of randomly oriented, non-conducting inclusions in a conducting matrix on the effective electrical conductivity. Acta Materialia, 2003, 51, 495-505.	7.9	56
10	Measuring and tailoring capillary forces during liquid metal infiltration. Current Opinion in Solid State and Materials Science, 2005, 9, 196-201.	11.5	49
11	Qualitative link between work of adhesion and thermal conductance of metal/diamond interfaces. Journal of Applied Physics, 2014, 115, .	2.5	46
12	Thermal boundary conductance between refractory metal carbides and diamond. Acta Materialia, 2014, 73, 337-346.	7.9	42
13	Influence of diamond surface termination on thermal boundary conductance between Al and diamond. Journal of Applied Physics, 2013, 113, .	2.5	39
14	The electrical conductivity of microcellular metals. Journal of Applied Physics, 2006, 100, 044912.	2.5	38
15	Equilibrium solid solubility of silicon in silver. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 1145-1150.	2.2	34
16	Influence of the wetting angle on capillary forces in pressure infiltration. Acta Materialia, 2015, 91, 57-69.	7.9	33
17	Open cellular magnesium alloys for biodegradable orthopaedic implants. Journal of Magnesium and Alloys, 2013, 1, 303-311.	11.9	31
18	Effect of diamond surface orientation on the thermal boundary conductance between diamond and aluminum. Diamond and Related Materials, 2013, 39, 8-13.	3.9	31

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19	Studying the wettability of Si and eutectic Si-Zr alloy on carbon and silicon carbide by sessile drop experiments. Journal of the European Ceramic Society, 2019, 39, 735-742.	5.7	31
20	Influence of reinforcement contiguity on the thermal expansion of alumina particle reinforced aluminium composites. International Journal of Materials Research, 2010, 101, 1113-1120.	0.3	27
21	Thermal boundary conductance of transition metals on diamond. Emerging Materials Research, 2012, 1, 89-98.	0.7	25
22	High-temperature wettability of aluminum nitride during liquid metal infiltration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 495, 197-202.	5.6	24
23	Nextelâ„¢ 610 alumina fibre reinforced aluminium: influence of matrix and process on flow stress. Composites Part A: Applied Science and Manufacturing, 2001, 32, 1067-1075.	7.6	23
24	Damage evolution of Nextel 610TM alumina fibre reinforced aluminium. Acta Materialia, 2004, 52, 573-581.	7.9	23
25	Non-conducting inclusions in a conducting matrix: Influence of inclusion size on electrical conductivity. Acta Materialia, 2005, 53, 1945-1953.	7.9	23
26	Rigidity of diamond reinforced metals featuring high particle contents. Composites Science and Technology, 2009, 69, 1660-1666.	7.8	21
27	Tensile flow stress of ceramic particle-reinforced metal in the presence of particle cracking. Acta Materialia, 2008, 56, 4402-4416.	7.9	20
28	Reactivity and thermal behaviour of Cuâ€“Si/SiC composites: effects of SiC oxidation. Materials Science and Technology, 2006, 22, 1464-1468.	1.6	19
29	Influence of processing route on electrical and thermal conductivity of Al/SiC composites with bimodal particle distribution. Journal of Materials Science, 2010, 45, 2203-2209.	3.7	19
30	Influence of the thickness of a nanometric copper interlayer on Au/dielectric thermal boundary conductance. Journal of Applied Physics, 2018, 124, .	2.5	19
31	Towards a coherent database of thermal boundary conductance at metal/dielectric interfaces. Journal of Applied Physics, 2019, 125, 095302.	2.5	18
32	Processing of Agâ€“Cu alloy foam by the replication process. Scripta Materialia, 2009, 61, 351-354.	5.2	17
33	Damage evolution in Saffil alumina short-fibre reinforced aluminium during tensile testing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 395, 27-34.	5.6	16
34	Fluid flow through replicated microcellular materials in the Darcy-Forchheimer regime. Acta Materialia, 2017, 126, 280-293.	7.9	15
35	Influence of sample processing parameters on thermal boundary conductance value in an Al/AlN system. Applied Physics Letters, 2011, 98, 091905.	3.3	14
36	Surface Modification of Diamonds in Diamond/Al-Matrix Composite. Advanced Materials Research, 0, 59, 125-130.	0.3	13

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37	Percolation and Universal Scaling in Composite Infiltration Processing. Materials Research Letters, 2015, 3, 7-15.	8.7	13
38	Temperature dependence of the thermal boundary conductance in Agâ€“3Si/diamond composites. Diamond and Related Materials, 2015, 57, 37-42.	3.9	13
39	Plasticity in Chevron-notch fracture toughness testing. Engineering Fracture Mechanics, 2000, 67, 263-276.	4.3	12
40	Influence of a Nanometric Al₂O₃ Interlayer on the Thermal Conductance of an Al/(Si, Diamond) Interface. Advanced Engineering Materials, 2015, 17, 68-75.	3.5	12
41	Direct measurement of drainage curves in infiltration of SiC particle preforms. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 495, 203-207.	5.6	11
42	Effect of hydrostatic pressure on flow and deformation in highly reinforced particulate composites. Acta Materialia, 2016, 117, 345-355.	7.9	11
43	Role of the electron-phonon coupling on the thermal boundary conductance of metal/diamond interfaces with nanometric interlayers. Journal of Applied Physics, 2019, 126, 165302.	2.5	10
44	Kinetic processes in the high-temperature pressure-infiltration of Al into Al2O3. Acta Materialia, 2020, 189, 105-117.	7.9	10
45	Development of a new family of phosphorous-free Pt-based bulk metallic glasses. Journal of Alloys and Compounds, 2017, 695, 3419-3428.	5.5	8
46	Corrigendum to: on the tensile behaviour of infiltrated alumina particle reinforced aluminium composites. Acta Materialia, 2003, 51, 6493-6496.	7.9	7
47	Solid solubility of germanium in silver. Thermochimica Acta, 2012, 544, 57-62.	2.7	7
48	Infiltration of tin bronze into alumina particle beds: influence of alloy chemistry on drainage curves. Journal of Materials Science, 2014, 49, 7669-7678.	3.7	7
49	Influence of interfacial structural disorder and/or chemical interdiffusion on thermal boundary conductance for Ti/Si and Au/Si couples. Journal of Applied Physics, 2019, 126, .	2.5	7
50	Transmitted light microscopy of a fibre reinforced metal. Journal of Microscopy, 2003, 209, 8-12.	1.8	6
51	Effects of partial crystallization in Pt-Si-B-based bulk metallic glasses on glass transition and crystallization of the remaining amorphous matrix. Journal of Non-Crystalline Solids, 2017, 460, 66-73.	3.1	6
52	The influence of non-linear elasticity on the determination of Weibull parameters using the fibre bundle tensile test. Composites Part A: Applied Science and Manufacturing, 2003, 34, 907-912.	7.6	5
53	Reactive pressure infiltration of Cu-46at.pct. Si into carbon. Acta Materialia, 2019, 177, 9-19.	7.9	5
54	Mechanical properties of replicated cellular Zn and Zn1.5Mg in uniaxial compression. Materials Characterization, 2019, 157, 109895.	4.4	5

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55	Liquid metal infiltration of silicon based alloys into porous carbonaceous materials. Part I: Modelling of channel filling and reaction phase formation. Journal of the European Ceramic Society, 2022, 42, 1971-1983.	5.7	5
56	Swift and inverse Swift effect in alumina fiber reinforced aluminum wires. Acta Materialia, 2000, 48, 2451-2459.	7.9	4
57	Fracture strength of alumina fiber reinforced aluminum wire with and without a torsional pre-strain. Acta Materialia, 2000, 48, 3235-3244.	7.9	4
58	Liquid metal infiltration of silicon based alloys into porous carbonaceous materials. Part II: Experimental verification of modelling approaches by infiltration of Si-Zr alloy into idealized microchannels. Journal of the European Ceramic Society, 2022, 42, 1984-1994.	5.7	4
59	Ductility of Saffilâ„¢ short fibre reinforced metals. Scripta Materialia, 2005, 53, 17-21.	5.2	1