

# Andreas Mortensen

## List of Publications by Year in descending order

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237  
papers

9,415  
citations

44069

48  
h-index

51608

86  
g-index

246  
all docs

246  
docs citations

246  
times ranked

5195  
citing authors

#	ARTICLE	IF	CITATIONS
1	Geometrically necessary dislocations and strain-gradient plasticity: a few critical issues. Scripta Materialia, 2003, 48, 119-125.	5.2	680
2	Solidification processing of metal matrix composites. International Materials Reviews, 1992, 37, 101-128.	19.3	389
3	Functionally graded metals and metal-ceramic composites: Part 1 Processing. International Materials Reviews, 1995, 40, 239-265.	19.3	364
4	Metal Matrix Composites. Annual Review of Materials Research, 2010, 40, 243-270.	9.3	354
5	Size dependent strengthening in particle reinforced aluminium. Acta Materialia, 2002, 50, 39-51.	7.9	307
6	Functionally graded metals and metal-ceramic composites: Part 2 Thermomechanical behaviour. International Materials Reviews, 1997, 42, 85-116.	19.3	258
7	Permeability of open-pore microcellular materials. Acta Materialia, 2005, 53, 1381-1388.	7.9	186
8	Deformation of open-cell aluminum foam. Acta Materialia, 2001, 49, 3959-3969.	7.9	180
9	Infiltration of fibrous preforms by a pure metal: Part I. Theory. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 2535-2547.	1.4	173
10	On plastic relaxation of thermal stresses in reinforced metals. Acta Metallurgica Et Materialia, 1991, 39, 127-139.	1.8	156
11	Infiltration processing of fibre reinforced composites: governing phenomena. Composites Part A: Applied Science and Manufacturing, 2001, 32, 981-996.	7.6	152
12	On the infiltration of metal matrix composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1987, 18, 1160-1163.	2.2	144
13	Thermal conductivity of Al-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
14	Kinetics of diffusion-limited spreading of sessile drops in reactive wetting. Scripta Materialia, 1997, 36, 645-651.	5.2	131
15	Replication Processing of Highly Porous Materials. Advanced Engineering Materials, 2006, 8, 795-803.	3.5	119
16	Infiltration of fibrous preforms by a pure metal: Part II. Experiment. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 2549-2557.	1.4	117
17	Graded open-cell aluminium foam core sandwich beams. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 404, 9-18.	5.6	114
18	Metal Matrix Composites in Industry. , 2003, , .		113

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19	On the electrical conductivity of metal matrix composites containing high volume fractions of non-conducting inclusions. <i>Acta Materialia</i> , 2003, 51, 3199-3211.	7.9	102
20	20ÅHz X-ray tomography during an in situ tensile test. <i>International Journal of Fracture</i> , 2016, 200, 3-12.	2.2	99
21	Fracture toughness testing of nanocrystalline alumina and fused quartz using chevron-notched microbeams. <i>Acta Materialia</i> , 2015, 86, 385-395.	7.9	96
22	Interfacial phenomena in the solidification processing of metal matrix composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1991, 135, 1-11.	5.6	95
23	Uniaxial deformation of open-cell aluminum foam: the role of internal damage. <i>Acta Materialia</i> , 2004, 52, 2895-2902.	7.9	93
24	Thermal expansion of metals reinforced with ceramic particles and microcellular foams. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1996, 27, 3700-3717.	2.2	88
25	Infiltration of fibrous preforms by a pure metal: Part III. capillary phenomena. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1990, 21, 2257-2263.	1.4	87
26	Columnar dendritic solidification in a metal- matrix composite. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1988, 19, 709-721.	1.4	86
27	Influence of damage on the tensile behaviour of pure aluminium reinforced with 40 vol. pct alumina particles. <i>Acta Materialia</i> , 2001, 49, 3699-3709.	7.9	86
28	Processing of NaCl powders of controlled size and shape for the microstructural tailoring of aluminium foams. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 374, 250-262.	5.6	86
29	Spherical pore replicated microcellular aluminium: Processing and influence on properties. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 465, 124-135.	5.6	80
30	Uniaxial deformation of microcellular metals. <i>Acta Materialia</i> , 2006, 54, 4129-4142.	7.9	76
31	Thermal expansion responses of pressure infiltrated SiC/Al metal-matrix composites. <i>Journal of Materials Science</i> , 1997, 32, 2131-2140.	3.7	73
32	Quasistatic and dynamic compression of aluminum-oxide particle reinforced pure aluminum. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 337, 202-211.	5.6	72
33	Effect of reaction on the tensile behavior of infiltrated boron carbide-aluminum composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 337, 264-273.	5.6	72
34	On the rate of dendrite arm coarsening. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991, 22, 569-574.	1.4	71
35	Processing of microcellular SiC foams. <i>Journal of Materials Science</i> , 1995, 30, 1037-1045.	3.7	70
36	Forced unidirectional infiltration of deformable porous media. <i>Journal of Fluid Mechanics</i> , 1996, 311, 193.	3.4	69

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37	Quantification of microdamage phenomena during tensile straining of high volume fraction particle reinforced aluminium. <i>Acta Materialia</i> , 2001, 49, 497-505.	7.9	68
38	Diffusion-limited reactive wetting: study of spreading kinetics of Cu-Cr alloys on carbon substrates. <i>Acta Materialia</i> , 1999, 47, 1117-1128.	7.9	65
39	Influence of the infiltration pressure on the structure and properties of replicated aluminium foams. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 462, 68-75.	5.6	65
40	Intermediate temperature embrittlement of copper alloys. <i>International Materials Reviews</i> , 2009, 54, 94-116.	19.8	64
41	On the influence of coarsening on microsegregation. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1989, 20, 247-253.	1.4	63
42	Pressure-infiltration processing of reinforced aluminum. <i>Jom</i> , 1993, 45, 36-43.	1.9	62
43	Thermal mismatch dislocations produced by large particles in a strain-hardening matrix. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1991, 135, 179-184.	5.6	60
44	In situ flow stress of pure aluminium constrained by tightly packed alumina fibres. <i>Acta Materialia</i> , 2009, 57, 1795-1812.	7.9	60
45	The effect of preform processing on replicated aluminium foam structure and mechanical properties. <i>Scripta Materialia</i> , 2006, 54, 2069-2073.	5.2	59
46	On the influence of the shape of randomly oriented, non-conducting inclusions in a conducting matrix on the effective electrical conductivity. <i>Acta Materialia</i> , 2003, 51, 495-505.	7.9	56
47	Thermal conductivity and interfacial conductance of AlN particle reinforced metal matrix composites. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	56
48	Multiaxial yield behaviour of Al replicated foam. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 1777-1793.	4.8	50
49	Infiltration of fiber preforms by a binary alloy: Part I. Theory. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1990, 21, 2059-2072.	1.4	49
50	Measuring and tailoring capillary forces during liquid metal infiltration. <i>Current Opinion in Solid State and Materials Science</i> , 2005, 9, 196-201.	11.5	49
51	Infiltration of fiber preforms by a binary. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1992, 23, 2263-2280.	1.4	48
52	Microscopic strength of silicon particles in an aluminium-silicon alloy. <i>Acta Materialia</i> , 2016, 105, 165-175.	7.9	47
53	Particle reinforced metals of high ceramic content. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 387-389, 822-831.	5.6	45
54	Influence of quench rate and microstructure on bendability of AA6016 aluminum alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 559, 558-565.	5.6	45

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55	Synthesis of bulk and reinforced. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1993, 24, 2161-2170.	1.4	44
56	Capillarity in isothermal infiltration of alumina fiber preforms with aluminum. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1994, 25, 2145-2152.	2.2	44
57	Solidification Processing of Metal-Matrix Composites. Jom, 1988, 40, 12-19.	1.9	40
58	Thermal fatigue of single-crystalline superalloy CMSX-4 <sup>®</sup> : a comparison of epitaxial laser-deposited material with the base single crystal. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 299, 152-156.	5.6	39
59	Fracture of aluminium reinforced with densely packed ceramic particles: link between the local and the total work of fracture. Acta Materialia, 2004, 52, 1337-1351.	7.9	38
60	The electrical conductivity of microcellular metals. Journal of Applied Physics, 2006, 100, 044912.	2.5	38
61	Fracture toughness measurement in fused quartz using triangular chevron-notched micro-cantilevers. Scripta Materialia, 2016, 112, 132-135.	5.2	38
62	Fabrication of cast particle-reinforced metals via pressure infiltration. Journal of Materials Science, 1991, 26, 2519-2526.	3.7	37
63	Melt Infiltration of Metal Matrix Composites. , 2000, , 521-554.		37
64	Yield surface of polyurethane and aluminium replicated foam. Acta Materialia, 2010, 58, 5168-5183.	7.9	37
65	Alloy Microstructures in Cast Metal Matrix Composites. Jom, 1986, 38, 30-35.	1.9	36
66	Infiltration of fiber preforms by an. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1992, 23, 2281-2289.	1.4	36
67	Fracture of aluminium reinforced with densely packed ceramic particles: influence of matrix hardening. Acta Materialia, 2004, 52, 5331-5345.	7.9	36
68	Coordination measurements in compacted NaCl irregular powders using X-ray microtomography. Journal of the European Ceramic Society, 2008, 28, 2441-2449.	5.7	36
69	Dislocation emission at fibers <sup>®</sup> l. Theory of longitudinal punching by thermal stresses. Acta Metallurgica Et Materialia, 1991, 39, 1405-1416.	1.8	34
70	Wetting in infiltration of alumina particle preforms with molten copper. Journal of Materials Science, 2005, 40, 2487-2491.	3.7	34
71	On the use of Considere <sup>®</sup> 's criterion in tensile testing of materials which accumulate internal damage. Scripta Materialia, 1999, 41, 549-551.	5.2	33
72	Infiltration of graphite preforms with Al <sup>®</sup> Si eutectic alloy and mercury. Scripta Materialia, 2007, 56, 991-994.	5.2	33

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73	Influence of the wetting angle on capillary forces in pressure infiltration. <i>Acta Materialia</i> , 2015, 91, 57-69.	7.9	33
74	Diffusion-limited reactive wetting: spreading of Cu-Sn-Ti alloys on vitreous carbon. <i>Scripta Materialia</i> , 2001, 44, 2543-2549.	5.2	32
75	Lorentz force infiltration of fibrous preforms. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991, 22, 2903-2915.	1.4	31
76	Initial stage hot pressing of monosized Ti and 90% Ti-10% TiC powders. <i>Acta Metallurgica Et Materialia</i> , 1993, 41, 955-965.	1.8	31
77	Investigation of crack-tip plasticity in high volume fraction particulate metal matrix composites. <i>Engineering Fracture Mechanics</i> , 2004, 71, 2385-2406.	4.3	31
78	On measuring wettability in infiltration processing. <i>Scripta Materialia</i> , 2007, 56, 859-862.	5.2	31
79	Surface oxide in replicated microcellular aluminium and its influence on the plasticity size effect. <i>Acta Materialia</i> , 2009, 57, 286-294.	7.9	31
80	Open cellular magnesium alloys for biodegradable orthopaedic implants. <i>Journal of Magnesium and Alloys</i> , 2013, 1, 303-311.	11.9	31
81	Compression testing spherical particles for strength: Theory of the meridian crack test and implementation for microscopic fused quartz. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 99, 70-92.	4.8	31
82	Chemical stability of zirconia-stabilized alumina fibers during pressure infiltration by aluminum. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991, 22, 2855-2862.	1.4	30
83	Tensile Behaviour of Replicated Aluminium Foams. <i>Advanced Engineering Materials</i> , 2004, 6, 444-447.	3.5	30
84	Structure and room-temperature deformation of alumina fiber-reinforced aluminum. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1992, 23, 1207-1219.	1.4	29
85	Microcellular Aluminium? â€œ Child's Play!. <i>Advanced Engineering Materials</i> , 2007, 9, 951-954.	3.5	29
86	Infiltration of fibrous preforms by a pure metal: Part V. Influence of preform compressibility. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1999, 30, 471-482.	2.2	28
87	Simplified prediction of the monotonic uniaxial stressâ€œstrain curve of non-linear particulate composites. <i>Acta Materialia</i> , 2006, 54, 2145-2155.	7.9	28
88	An analysis of the tensile elongation to failure of laminated metal composites in the presence of strain-rate hardening. <i>Acta Materialia</i> , 2012, 60, 2265-2276.	7.9	28
89	Mechanical properties and cytocompatibility of dense and porous Zn produced by laser powder bed fusion for biodegradable implant applications. <i>Acta Biomaterialia</i> , 2020, 110, 289-302.	8.3	28
90	Processing of microcellular SiC foams. <i>Journal of Materials Science</i> , 1995, 30, 1025-1032.	3.7	27

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91	Kinetics of densification by solution-precipitation. <i>Acta Materialia</i> , 1997, 45, 749-758.	7.9	27
92	Diffusion-limited reactive wetting: effect of interfacial reaction behind the advancing triple line. <i>Journal of Materials Science</i> , 2007, 42, 8071-8082.	3.7	27
93	Influence of reinforcement contiguity on the thermal expansion of alumina particle reinforced aluminium composites. <i>International Journal of Materials Research</i> , 2010, 101, 1113-1120.	0.3	27
94	In-situ strength of individual silicon particles within an aluminium casting alloy. <i>Acta Materialia</i> , 2018, 143, 67-76.	7.9	27
95	Solidification of binary hypoeutectic alloy matrix composite castings. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1996, 27, 595-609.	2.2	26
96	Heating of TEM specimens during ion milling. <i>Ultramicroscopy</i> , 2001, 87, 123-133.	1.9	26
97	Functional grading of metal foam cores for yield-limited lightweight sandwich beams. <i>Scripta Materialia</i> , 2006, 54, 539-543.	5.2	26
98	Wetting of SAFFIL alumina fiber preforms by aluminum at 973 K. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1992, 23, 2071-2073.	1.4	25
99	Experimental investigation of stress and strain fields in a ductile matrix surrounding an elastic inclusion. <i>Acta Materialia</i> , 2000, 48, 1451-1467.	7.9	25
100	Sintering of NaCl powder: Mechanisms and first stage kinetics. <i>Journal of the European Ceramic Society</i> , 2006, 26, 3487-3497.	5.7	24
101	High-temperature wettability of aluminum nitride during liquid metal infiltration. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 495, 197-202.	5.6	24
102	Creep of aluminium-magnesium open cell foam. <i>Acta Materialia</i> , 2009, 57, 830-837.	7.9	24
103	Fracture toughness of Al replicated foam. <i>Acta Materialia</i> , 2010, 58, 4590-4603.	7.9	24
104	Nextel <sup>®</sup> , 610 alumina fibre reinforced aluminium: influence of matrix and process on flow stress. <i>Composites Part A: Applied Science and Manufacturing</i> , 2001, 32, 1067-1075.	7.6	23
105	Damage evolution of Nextel 610TM alumina fibre reinforced aluminium. <i>Acta Materialia</i> , 2004, 52, 573-581.	7.9	23
106	<i>Porous Metals.</i> , 2014, , 2399-2595.		23
107	Reinforced silver chloride as a model material for the study of dislocations in metal matrix composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1991, 144, 179-188.	5.6	22
108	Kinetic undercooling in solidification of a hypereutectic Al-Si alloy; effect of solidifying within a ceramic preform composite. <i>Acta Materialia</i> , 1998, 46, 91-99.	7.9	22

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109	Plasticity of continuous fiber-reinforced metals. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 1843-1866.	2.2	22
110	On the steady-state creep of microcellular metals. Scripta Materialia, 2007, 57, 33-36.	5.2	22
111	Young's modulus of ceramic particle reinforced aluminium: Measurement by the Impulse Excitation Technique and confrontation with analytical models. Composites Part A: Applied Science and Manufacturing, 2009, 40, 524-529.	7.6	22
112	Ductile-to-brittle transition in tensile failure of particle-reinforced metals. Journal of the Mechanics and Physics of Solids, 2009, 57, 473-499.	4.8	21
113	Tensile flow stress of ceramic particle-reinforced metal in the presence of particle cracking. Acta Materialia, 2008, 56, 4402-4416.	7.9	20
114	Activation volume in microcellular aluminium: Size effects in thermally activated plastic flow. Acta Materialia, 2011, 59, 6869-6879.	7.9	20
115	Capillary Phenomena, Interfacial Bonding, and Reactivity. , 1993, , 42-58.		19
116	Steady-state cellular solidification of Al-Cu Reinforced with alumina fibers. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1995, 26, 2141-2153.	2.2	19
117	Reactive infiltration processing of aluminum-nickel intermetallic compounds. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2819-2828.	2.2	19
118	Influence of heat treatment and particle shape on mechanical properties of infiltrated Al <sub>2</sub> O <sub>3</sub> particle reinforced Al-2 wt-%Cu. Materials Science and Technology, 2002, 18, 1461-1470.	1.6	19
119	Wetting, interfacial interactions and sticking in glass/steel systems. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 384, 117-128.	5.6	19
120	Reactivity and thermal behaviour of Cu-Si/SiC composites: effects of SiC oxidation. Materials Science and Technology, 2006, 22, 1464-1468.	1.6	19
121	Cast aluminium single crystals cross the threshold from bulk to size-dependent stochastic plasticity. Nature Materials, 2017, 16, 730-736.	27.5	19
122	Longitudinal deformation of fibre reinforced metals: influence of fibre distribution on stiffness and flow stress. Mechanics of Materials, 2005, 37, 1-17.	3.2	18
123	Fracture behavior of low-density replicated aluminum alloy foams. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 496, 376-382.	5.6	18
124	Creep of replicated microcellular aluminium. Acta Materialia, 2011, 59, 440-450.	7.9	18
125	Infiltration of fibrous preforms by a pure metal: Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1992, 23, 2291-2299.	1.4	17
126	Processing of Ag-Cu alloy foam by the replication process. Scripta Materialia, 2009, 61, 351-354.	5.2	17



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127	Dihedral angles in Cu-1 wt.% Pb: Grain boundary energy and grain boundary triple line effects. <i>Acta Materialia</i> , 2009, 57, 2527-2537.	7.9	17
128	Fatigue and cyclic creep of replicated microcellular aluminium. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 2657-2663.	5.6	17
129	Laminated Metal Composites by Infiltration. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 3509-3520.	2.2	17
130	Tensile strength of axially loaded unidirectional Nextel 610 $\mu$ m reinforced aluminium: A case study in local load sharing between randomly distributed fibres. <i>Composites Part A: Applied Science and Manufacturing</i> , 2012, 43, 129-137.	7.6	17
131	Dislocation emission at fibers. Experiments and microstructure of thermal punching. <i>Acta Metallurgica Et Materialia</i> , 1991, 39, 1417-1429.	1.8	16
132	The status of metal-matrix composite research and development in Japan. <i>Jom</i> , 1993, 45, 10-18.	1.9	16
133	Damage evolution in Saffil alumina short-fibre reinforced aluminium during tensile testing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 395, 27-34.	5.6	16
134	Increasing the Strength/Toughness Combination of High Volume Fraction Particulate Metal Matrix Composites using an Al-Ag Matrix Alloy. <i>Advanced Engineering Materials</i> , 2006, 8, 56-62.	3.5	16
135	Particle fracture in high-volume-fraction ceramic-reinforced metals: Governing parameters and implications for composite failure. <i>Journal of the Mechanics and Physics of Solids</i> , 2009, 57, 1781-1800.	4.8	16
136	In situ copper-alumina composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 585, 396-407.	5.6	16
137	Hole and notch sensitivity of aluminium replicated foam. <i>Acta Materialia</i> , 2011, 59, 572-581.	7.9	15
138	Tensile elongation of unidirectional or laminated composites combining a brittle reinforcement with a ductile strain and strain-rate hardening matrix. <i>Acta Materialia</i> , 2014, 71, 31-43.	7.9	15
139	Fluid flow through replicated microcellular materials in the Darcy-Forchheimer regime. <i>Acta Materialia</i> , 2017, 126, 280-293.	7.9	15
140	Silicon particle pinhole defects in aluminium-silicon alloys. <i>Journal of Materials Science</i> , 2017, 52, 858-868.	3.7	15
141	Steady state solidification of reinforced binary alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1993, 173, 205-212.	5.6	14
142	A stereoscopic method for dihedral angle measurement. <i>Journal of Materials Science</i> , 2005, 40, 3121-3127.	3.7	14
143	Microstructural Tailoring of Open-Pore Microcellular Aluminium by Replication Processing. <i>Materials Science Forum</i> , 2006, 512, 281-288.	0.3	14
144	Percolation and Universal Scaling in Composite Infiltration Processing. <i>Materials Research Letters</i> , 2015, 3, 7-15.	8.7	13

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145	Designing laminated metal composites for tensile ductility. <i>Materials &amp; Design</i> , 2015, 66, 412-420.	5.1	13
146	Plasticity in Chevron-notch fracture toughness testing. <i>Engineering Fracture Mechanics</i> , 2000, 67, 263-276.	4.3	12
147	The effect of size on the plastic deformation of annealed cast aluminium microwires. <i>Scripta Materialia</i> , 2019, 161, 58-61.	5.2	12
148	On the relaxation of a mismatching spheroid by prismatic loop punching. <i>Scripta Metallurgica Et Materialia</i> , 1991, 25, 761-766.	1.0	11
149	On Thermal Effects in Reactive Wetting. <i>Scripta Materialia</i> , 1998, 38, 1411-1417.	5.2	11
150	Age-hardening Response of Replicated Microcellular Al-4.5%Cu. <i>Advanced Engineering Materials</i> , 2008, 10, 849-852.	3.5	11
151	Direct measurement of drainage curves in infiltration of SiC particle preforms. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 495, 203-207.	5.6	11
152	Microstructure, strength and creep of aluminium-nickel open cell foam. <i>Philosophical Magazine</i> , 2009, 89, 1121-1139.	1.6	11
153	Fracture of convoluted and lamellar $\beta$ TiAl alloys. <i>Intermetallics</i> , 2012, 22, 176-188.	3.9	11
154	The plasticity size effect in replicated microcellular aluminium. <i>Scripta Materialia</i> , 2013, 69, 469-472.	5.2	11
155	Effect of hydrostatic pressure on flow and deformation in highly reinforced particulate composites. <i>Acta Materialia</i> , 2016, 117, 345-355.	7.9	11
156	Stable room-temperature micron-scale crack growth in single-crystalline silicon. <i>Journal of Materials Research</i> , 2017, 32, 3617-3626.	2.6	11
157	Hypervelocity impact testing on stochastic and structured open porosity cast Al-Si cellular structures for space applications. <i>International Journal of Impact Engineering</i> , 2018, 120, 126-137.	5.0	11
158	3D metal freeform micromanufacturing. <i>Journal of Manufacturing Processes</i> , 2021, 68, 867-876.	5.9	11
159	Relaxed configuration of a row of punched prismatic dislocation loops. <i>Scripta Metallurgica Et Materialia</i> , 1991, 25, 607-612.	1.0	10
160	Microsegregation in cellular solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1994, 25, 2295-2301.	2.2	10
161	On the Work Hardening of Fiber Reinforced Copper. <i>Scripta Materialia</i> , 1998, 38, 1109-1115.	5.2	10
162	Improvement of elevated temperature mechanical properties of Cu-Ni-Sn-Pb alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 4326-4333.	5.6	10

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163	Capillarity in pressure infiltration: improvements in characterization of high-temperature systems. <i>Journal of Materials Science</i> , 2012, 47, 8419-8430.	3.7	10
164	The local strength of individual alumina particles. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 109, 34-49.	4.8	10
165	Kinetic processes in the high-temperature pressure-infiltration of Al into Al <sub>2</sub> O <sub>3</sub> . <i>Acta Materialia</i> , 2020, 189, 105-117.	7.9	10
166	Fabrication and Compressive Response of Open-Cell Aluminum Foams with Sub-Millimeter Pores. , 0, , 34-39.		10
167	Particle/matrix bonding in alumina-steel composites. <i>Scripta Metallurgica Et Materialia</i> , 1991, 25, 1917-1920.	1.0	9
168	The Effect of Prior Deformation on the Foaming Behavior of "FORMGRIP" Precursor Material. <i>Advanced Engineering Materials</i> , 2002, 4, 749-752.	3.5	9
169	Fracture of high volume fraction ceramic particle reinforced aluminium under multiaxial stress. <i>Acta Materialia</i> , 2010, 58, 3895-3907.	7.9	9
170	Infiltrated Cu <sub>8</sub> Al <sub>2</sub> Ti alumina composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014, 66, 1-15.	7.6	9
171	The local strength of microscopic alumina reinforcements. <i>Acta Materialia</i> , 2015, 100, 215-223.	7.9	9
172	Meridian crack test strength of plasma-sprayed amorphous and nanocrystalline ceramic microparticles. <i>Acta Materialia</i> , 2018, 145, 278-289.	7.9	9
173	Corrigenda and comments on the infiltration of fiber preforms. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1990, 21, 2287-2287.	1.4	8
174	Capillary shape equilibration of liquid inclusions embedded in a partly soluble solid. <i>Scripta Materialia</i> , 2006, 55, 955-958.	5.2	8
175	Scaling of conductivity and Young's modulus in replicated microcellular materials. <i>Journal of Materials Science</i> , 2013, 48, 8140-8146.	3.7	8
176	On measuring fracture toughness under load control in the presence of slow crack growth. <i>Journal of the European Ceramic Society</i> , 2015, 35, 3155-3166.	5.7	8
177	Interface structure in infiltrated composites of aluminum reinforced with alumina-silica fiber preforms. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991, 22, 1126-1128.	1.4	7
178	The effect of gravity on solution-precipitation during liquid phase sintering. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2000, 31, 397-400.	2.2	7
179	Corrigendum to: on the tensile behaviour of infiltrated alumina particle reinforced aluminium composites. <i>Acta Materialia</i> , 2003, 51, 6493-6496.	7.9	7
180	Damage accumulation during cyclic loading of a continuous alumina fibre reinforced aluminium composite. <i>Scripta Materialia</i> , 2005, 53, 1111-1115.	5.2	7

#	ARTICLE	IF	CITATIONS
181	Direct measurement of drainage curves in infiltration of SiC particle preforms: influence of interfacial reactivity. <i>Journal of Materials Science</i> , 2008, 43, 5061-5067.	3.7	7
182	Measurement of damage evolution in continuous ceramic fibre-reinforced metals by acoustic emission. <i>Scripta Materialia</i> , 2008, 59, 842-845.	5.2	7
183	Infiltration of tin bronze into alumina particle beds: influence of alloy chemistry on drainage curves. <i>Journal of Materials Science</i> , 2014, 49, 7669-7678.	3.7	7
184	Lorentz-force-driven infiltration by aluminum. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1991, 144, 165-168.	5.6	6
185	Calorimetry of deformed aluminum reinforced with alumina particles. <i>Scripta Metallurgica Et Materialia</i> , 1994, 30, 1509-1514.	1.0	6
186	Reply to "Kinetics of reactive wetting". <i>Scripta Materialia</i> , 2001, 45, 953-956.	5.2	6
187	Transmitted light microscopy of a fibre reinforced metal. <i>Journal of Microscopy</i> , 2003, 209, 8-12.	1.8	6
188	On the load-bearing efficiency of open-cell foams: A comparison of two architectures related to two processes. <i>Scripta Materialia</i> , 2013, 68, 44-49.	5.2	6
189	On the diametric compression strength test of brittle spherical particles. <i>European Journal of Mechanics, A/Solids</i> , 2018, 72, 148-154.	3.7	6
190	Investment casting of periodic aluminum cellular structures using slurry-cast table salt moulds. <i>Materials and Design</i> , 2022, 215, 110488.	7.0	6
191	Equilibrium shape of prismatic dislocation loops under uniform stress. <i>Acta Materialia</i> , 1999, 47, 2357-2365.	7.9	5
192	The influence of non-linear elasticity on the determination of Weibull parameters using the fibre bundle tensile test. <i>Composites Part A: Applied Science and Manufacturing</i> , 2003, 34, 907-912.	7.6	5
193	Solidification of Al-4.5wt% Cu-Replicated Foams. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 2048-2055.	2.2	5
194	L10 nanotwinned gold-rich Au-Cu-Pt. <i>Acta Materialia</i> , 2011, 59, 3184-3195.	7.9	5
195	Al <sub>2</sub> O <sub>3</sub> particle rounding in molten copper and Cu <sub>8</sub> wt%Al. <i>Journal of Materials Science</i> , 2012, 47, 6346-6353.	3.7	5
196	Reactive pressure infiltration of Cu-46at.pct. Si into carbon. <i>Acta Materialia</i> , 2019, 177, 9-19.	7.9	5
197	Mechanical properties of replicated cellular Zn and Zn <sub>1.5</sub> Mg in uniaxial compression. <i>Materials Characterization</i> , 2019, 157, 109895.	4.4	5
198	The thermally activated deformation behaviour of single-crystalline microcast aluminium wires. <i>Acta Materialia</i> , 2022, 234, 118037.	7.9	5

#	ARTICLE	IF	CITATIONS
199	Swift and inverse Swift effect in alumina fiber reinforced aluminum wires. Acta Materialia, 2000, 48, 2451-2459.	7.9	4
200	Fracture strength of alumina fiber reinforced aluminum wire with and without a torsional pre-strain. Acta Materialia, 2000, 48, 3235-3244.	7.9	4
201	Composite Materials: Overview. , 2001, , 1361-1371.		4
202	Influence of microstructural heterogeneity on the scaling between flow stress and relative density in microcellular Al-4.5%Cu. Journal of Materials Science, 2014, 49, 2403-2414.	3.7	4
203	Laue microdiffraction characterisation of as-cast and tensile deformed Al microwires. Philosophical Magazine, 2019, 99, 1866-1880.	1.6	4
204	Processing and micro-mechanical characterization of multi-component transition MC carbides in iron. Journal of the European Ceramic Society, 2021, 41, 3937-3946.	5.7	4
205	Structural Metallic Materials by Infiltration. , 2004, , 379-390.		4
206	Researching metal-matrix composites at MIT's Department of Materials Science and Engineering. Jom, 1993, 45, 62-63.	1.9	3
207	Initial-stage hot-pressing of SiC fibre/ Ti monotapes. Composites, 1994, 25, 953-956.	0.7	3
208	Processing Metal Matrix Composites. , 2003, , 39-64.		3
209	Influence of chemistry and microstructure on the activation volume of TiAl alloys. Intermetallics, 2010, 18, 2145-2153.	3.9	3
210	Solid state transformations of Au-Cu-Pt alloys studied by in-situ X-ray synchrotron radiation and DSC. Intermetallics, 2011, 19, 726-737.	3.9	3
211	Thermally activated deformation of two- and three-variant nanotwinned L10 Au-Cu-Pt. Intermetallics, 2011, 19, 988-996.	3.9	3
212	Simulating Infiltration as a Sequence of Pinning and De-pinning Processes. Acta Materialia, 2021, 210, 116831.	7.9	3
213	Microstructural Tailoring of Open-Pore Microcellular Aluminium by Replication Processing. Materials Science Forum, 0, , 281-288.	0.3	3
214	Equilibrium shape of a liquid intergranular inclusion in a stressed elastic solid. Scripta Materialia, 2008, 58, 610-613.	5.2	2
215	Stress relaxation in the presence of sudden strain bursts: Methodology and stress relaxation data of microcast aluminium microwires. Data in Brief, 2018, 21, 2134-2141.	1.0	2
216	Finite element simulation of the Portevin-Le Chatelier effect in highly reinforced metal matrix composites. Philosophical Magazine, 2021, 101, 1471-1489.	1.6	2

#	ARTICLE	IF	CITATIONS
217	On the infiltration of metal matrix composites. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 18, 1160-1163.	1.4	2
218	Glass-in-glass infiltration for 3D micro-optical composite components. Optics Express, 2022, 30, 13603.	3.4	2
219	Proposal for a Generic Materials Processing Course. MRS Bulletin, 1990, 15, 35-36.	3.5	1
220	Reactive Infiltration Processing of Bulk and Fiber-Reinforced NiAl. Materials Research Society Symposia Proceedings, 1996, 460, 737.	0.1	1
221	Analysis of steady-state shallow cell solidification in metal matrix composites. Acta Materialia, 1996, 44, 4553-4564.	7.9	1
222	Ductility of Saffil <sup>®</sup> short fibre reinforced metals. Scripta Materialia, 2005, 53, 17-21.	5.2	1
223	Measurement and anisotropy of grain boundary energy in Cu-1wt.% Pb. Scripta Materialia, 2010, 62, 262-265.	5.2	1
224	Pleated crystals. Nature, 2010, 468, 906-907.	27.8	1
225	Occurrence of the Portevin Le-Châtelier effect in open-cell microcellular Al-2wt% Mg. Scripta Materialia, 2017, 132, 13-16.	5.2	1
226	Surface energy contributions to the work of infiltration in metal matrix composite processing. Scripta Materialia, 2022, 206, 114223.	5.2	1
227	Uniaxial Deformation of Microcellular Metals: Model Systems and Simplified Analysis. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 1-8.	0.2	1
228	Influence of matrix solidification during infiltration on the structure of a cast fibre reinforced alloy. , 1990, , 195-204.		1
229	A method for cleaning flat punch diamond microprobe tips. Micron, 2022, 155, 103217.	2.2	1
230	Longitudinal Relaxation of a Thermally Stressed Fiber by Prismatic Dislocation Punching. Materials Research Society Symposia Proceedings, 1990, 209, 305.	0.1	0
231	Modelling Kinetics of Diffusion Controlled Reactive Wetting: The Role of Reaction behind the Triple Line. Solid State Phenomena, 2000, 72, 91-98.	0.3	0
232	Deformation of Highly Loaded Alumina Reinforced Aluminium Composites: Internal Damage and the Size Effect. Materials Research Society Symposia Proceedings, 2006, 977, 1.	0.1	0
233	On measured activation volumes as relevant to ratcheting or cyclic creep. Scripta Materialia, 2011, 65, 787-790.	5.2	0
234	Steel-Magnesium Laminated Composites by Infiltration. Materials Research Society Symposia Proceedings, 2012, 1373, 143.	0.1	0

#	ARTICLE	IF	CITATIONS
235	Deformation of Open-Cell Microcellular Pure Aluminum Investigated by the Acoustic Emission Technique. , 2014, , 339-342.		0
236	Théorie et pratique de l'infiltation de poudres par les métaux.. Revue De Metallurgie, 1994, 91, 1232-1232.	0.3	0
237	Femtosecond laser assisted 3-dimensional freeform fabrication of metal microstructures in fused silica (Conference Presentation). , 2017, , .		0