Thomas R Bieler

List of Publications by Year
in descending order

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217	10,152	36203	39575
papers	citations	51 h-index	94 g-index

237	237	237	4491
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Overview of constitutive laws, kinematics, homogenization and multiscale methods in crystal plasticity finite-element modeling: Theory, experiments, applications. Acta Materialia, 2010, 58, 1152-1211.	3.8	1,558
2	The effect of alpha platelet thickness on plastic flow during hot working of TIâ€“6Alâ€“4V with a transformed microstructure. Acta Materialia, 2001, 49, 3565-3573.	3.8	399
3	The role of heterogeneous deformation on damage nucleation at grain boundaries in single phase metals. International Journal of Plasticity, 2009, 25, 1655-1683.	4.1	304
4	Superplasticity in powder metallurgy aluminum alloys and composites. Acta Metallurgica Et Materialia, 1995, 43, 877-891.	1.9	252
5	Grain boundaries and interfaces in slip transfer. Current Opinion in Solid State and Materials Science, 2014, 18, 212-226.	5.6	237
6	Twin Nucleation by Slip Transfer across Grain Boundaries in Commercial Purity Titanium. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 421-430.	1.1	235
7	The origins of heterogeneous deformation during primary hot working of Tiâ€“6Alâ€“4V. International Journal of Plasticity, 2002, 18, 1165-1189.	4.1	232
8	Characterization of the growth of intermetallic interfacial layers of Sn-Ag and Sn-Pb eutectic solders and their composite solders on Cu substrate during isothermal long-term aging. Journal of Electronic Materials, 1999, 28, 1209-1215.	1.0	210
9	Methodology for estimating the critical resolved shear stress ratios of Î±-phase Ti using EBSD-based trace analysis. Acta Materialia, 2013, 61, 7555-7567.	3.8	184
10	Effects of working, heat treatment, and aging on microstructural evolution and crystallographic texture of Î±, Î±â€², Î±â€³ and Î² phases in Tiâ€“6Alâ€“4V wire. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 392, 403-414.	2.6	179
11	Cyclic twin nucleation in tin-based solder alloys. Acta Materialia, 2010, 58, 3546-3556.	3.8	176
12	Nucleation of paired twins at grain boundaries in titanium. Scripta Materialia, 2010, 63, 827-830.	2.6	157
13	Orientation informed nanoindentation of Î±-titanium: Indentation pileup in hexagonal metals deforming by prismatic slip. Journal of Materials Research, 2012, 27, 356-367.	1.2	150
14	Direct measurement of critical resolved shear stress of prismatic and basal slip in polycrystalline Ti using high energy X-ray diffraction microscopy. Acta Materialia, 2017, 132, 598-610.	3.8	146
15	Grain-boundary character and grain growth in bulk tin and bulk lead-free solder alloys. Journal of Electronic Materials, 2004, 33, 1412-1423.	1.0	128
16	Experimental Characterization and Crystal Plasticity Modeling of Heterogeneous Deformation in Polycrystalline Î±-Ti. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 626-635.	1.1	121
17	Effect of texture and slip mode on the anisotropy of plastic flow and flow softening during hot working of Ti-6Al-4V. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1787-1799.	1.1	118
18	Strain heterogeneity and damage nucleation at grain boundaries during monotonic deformation in commercial purity titanium. Jom, 2009, 61, 45-52.	0.9	116

#	Article	IF	Citations
19	Flow softening during hot working of Ti-6Al-4V with a lamellar colony microstructure. Scripta Materialia, 1999, 40, 1387-1393.	2.6	112
20	Contactless power and information transmission. IEEE Transactions on Industry Applications, 2002, 38, 1266-1272.	3.3	111
21	Processing and aging characteristics of eutectic Sn-3.5Ag solder reinforced with mechanically incorporated Ni particles. Journal of Electronic Materials, 2001, 30, 1073-1082.	1.0	104
22	Incremental recrystallization/grain growth driven by elastic strain energy release in a thermomechanically fatigued lead-free solder joint. Acta Materialia, 2007, 55, 2265-2277.	3.8	103
23	Mechanism of high strain rate superplasticity in aluminium alloy composites. Acta Materialia, 1997, 45, 561-568.	3.8	98
24	The Role of Elastic and Plastic Anisotropy of Sn in Recrystallization and Damage Evolution During Thermal Cycling in SAC305 Solder Joints. Journal of Electronic Materials, 2012, 41, 283-301.	1.0	97
25	Superplastic-like behavior at high strain rates in mechanically alloyed aluminum. Scripta Metallurgica, 1988, 22, 81-86.	1.2	96
26	A method to determine the orientation of the high-temperature beta phase from measured EBSD data for the low-temperature alpha phase in Ti-6Al-4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 346, 50-59.	2.6	95
27	An analysis of (the lack of) slip transfer between near-cube oriented grains in pure Al. International Journal of Plasticity, 2019, 118, 269-290.	4.1	95
28	In Situ Characterization of Twin Nucleation in Pure Ti Using 3D-XRD. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 109-122.	1.1	90
29	Anin-situobservation of mechanical twin nucleation and propagation in TiAl. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 71, 925-947.	0.8	86
30	Analysis of slip transfer and deformation behavior across the Î±/Î² interface in Tiâ€“5Alâ€“2.5Sn (wt.%) with an equiaxed microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 552, 61-68.	2.6	86
31	Orientation imaging studies of Sn-based electronic solder joints. Journal of Materials Research, 2002, 17, 2294-2306.	1.2	85
32	Effect of realistic 3D microstructure in crystal plasticity finite element analysis of polycrystalline Ti-5Al-2.5Sn. International Journal of Plasticity, 2015, 69, 21-35.	4.1	84
33	The orientation imaging microscopy of lead-free Sn-Ag solder joints. Jom, 2005, 57, 44-49.	0.9	80
34	Thermomechanical fatigue behavior of Sn-Ag solder joints. Journal of Electronic Materials, 2000, 29, 1249-1257.	1.0	77
35	Evaluation of creep behavior of near-eutectic Snâ€“Ag solders containing small amount of alloy additions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 190-199.	2.6	77
36	Sn-Ag-Cu Solder Joint Microstructure and Orientation Evolution as a Function of Position and Thermal Cycles in Ball Grid Arrays Using Orientation Imaging Microscopy. Journal of Electronic Materials, 2010, 39, 2588-2597.	1.0	71

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37	The high strain rate superplastic deformation mechanisms of mechanically alloyed aluminum IN90211. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1990, 128, 171-182.	2.6	70
38	Characterization of microstructure and crystal orientation of the tin phase in single shear lap Snâ€“3.5Ag solder joint specimens. Scripta Materialia, 2005, 52, 1027-1031.	2.6	70
39	Crack opening due to deformation twin shear at grain boundaries in near-Î³ TiAl. Intermetallics, 2007, 15, 55-60.	1.8	67
40	Modeling thermomechanical fatigue behavior of Sn-Ag solder joints. Journal of Electronic Materials, 2002, 31, 1152-1159.	1.0	66
41	An automated method to determine the orientation of the high-temperature beta phase from measured EBSD data for the low-temperature alpha-phase in Tiâ€“6Alâ€“4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 258-264.	2.6	64
42	Effect of cooling rate on microstructure and mechanical properties of eutectic Sn-Ag solder joints with and without intentionally incorporated Cu6Sn5 reinforcements. Journal of Electronic Materials, 1999, 28, 1184-1188.	1.0	61
43	Crack Development in a Low-Stress PBGA Package due to Continuous Recrystallization Leading to Formation of Orientations with [001] Parallel to the Interface. Journal of Electronic Materials, 2010, 39, 2669-2679.	1.0	60
44	Comparison of the deformation behaviour of commercially pure titanium and Tiâ€“5Alâ€“2.5Sn(wt.%) at 296 and 728â€‰K. Philosophical Magazine, 2013, 93, 2875-2895.	0.7	59
45	Creep properties of Sn-Ag solder joints containing intermetallic particles. Jom, 2001, 53, 22-26.	0.9	57
46	Methodology for Analyzing Slip Behavior in Ball Grid Array Lead-Free Solder Joints After Simple Shear. Journal of Electronic Materials, 2009, 38, 2702-2711.	1.0	56
47	Microstructural engineering of solders. Journal of Electronic Materials, 1999, 28, 1176-1183.	1.0	55
48	Title is missing!. Journal of Materials Science: Materials in Electronics, 2000, 11, 497-502.	1.1	54
49	Quantitative Atomic Force Microscopy Characterization and Crystal Plasticity Finite Element Modeling of Heterogeneous Deformation in Commercial Purity Titanium. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 636-644.	1.1	54
50	Analysis of slip activity and heterogeneous deformation in tension and tension-creep of Tiâ€“5Alâ€“2.5Sn (wt %) usingin-situSEM experiments. Philosophical Magazine, 2012, 92, 2923-2946.	0.7	54
51	Fracture initiation/propagation parameters for duplex TiAl grain boundaries based on twinning, slip, crystal orientation, and boundary misorientation. Intermetallics, 2005, 13, 979-984.	1.8	53
52	Influence of Sn Grain Size and Orientation on the Thermomechanical Response and Reliability of Pb-free Solder Joints. , 0, , .		53
53	Anisotropic Crystal Plasticity Finite Element Modeling of the Effect of Crystal Orientation and Solder Joint Geometry on Deformation after Temperature Change. Journal of Electronic Materials, 2009, 38, 231-240.	1.0	53
54	Quantifying deformation processes near grain boundaries in Î± titanium using nanoindentation and crystal plasticity modeling. International Journal of Plasticity, 2016, 86, 170-186.	4.1	53

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55	Study of $$ { 11ar{2} 1} $$ Twinning in Î±-Ti by EBSD and Laue Microdiffraction. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3664-3674.	1.1	52
56	Stress relaxation behavior of composite and eutectic Sn-Ag solder joints. Journal of Electronic Materials, 2001, 30, 1197-1205.	1.0	51
57	Examination of the distribution of the tensile deformation systems in tension and tension-creep of Ti-6Al-4V (wt.%) at 296ÂK and 728ÂK. Philosophical Magazine, 2015, 95, 691-729.	0.7	51
58	Creep properties of eutectic Sn-3.5Ag solder joints reinforced with mechanically incorporated Ni particles. Journal of Electronic Materials, 2001, 30, 1222-1227.	1.0	50
59	The role of mechanical twinning on microcrack nucleation and crack propagation in a near-Î³ TiAl alloy. Intermetallics, 2004, 12, 1317-1323.	1.8	50
60	Effect of slip transmission at grain boundaries in Al bicrystals. International Journal of Plasticity, 2020, 126, 102600.	4.1	50
61	Pb-Free Solder: New Materials Considerations for Microelectronics Processing. MRS Bulletin, 2007, 32, 360-365.	1.7	49
62	Crystal Plasticity Finite-Element Analysis of Deformation Behavior in Multiple-Grained Lead-Free Solder Joints. Journal of Electronic Materials, 2013, 42, 201-214.	1.0	49
63	Microstructural characterization of damage in thermomechanically fatigued Sn-Ag based solder joints. Journal of Electronic Materials, 2002, 31, 292-297.	1.0	47
64	Residual-mechanical behavior of thermomechanically fatigued Sn-Ag based solder joints. Journal of Electronic Materials, 2002, 31, 946-952.	1.0	46
65	A criterion for slip transfer at grain boundaries in Al. Scripta Materialia, 2020, 178, 408-412.	2.6	45
66	Effect of texture changes on flow softening during hot working of Ti-6Al-4V. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1871-1875.	1.1	44
67	A factor to predict microcrack nucleation at Î³â€“Î³ grain boundaries in TiAl. Scripta Materialia, 2003, 49, 149-154.	2.6	44
68	Multiscale modeling of the anisotropic transient creep response of heterogeneous single crystal SnAgCu solder. International Journal of Plasticity, 2016, 78, 1-25.	4.1	44
69	Physical and mechanical metallurgy of high purity Nb for accelerator cavities. Physical Review Special Topics: Accelerators and Beams, 2010, 13, .	1.8	41
70	Quantification of creep strain distribution in small crept lead-free in-situ composite and non composite solder joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 285, 25-34.	2.6	40
71	Microstructure and Orientation Evolution of the Sn Phase as a Function of Position in Ball Grid Arrays in Sn-Ag-Cu Solder Joints. Journal of Electronic Materials, 2009, 38, 2685.	1.0	39
72	Slip, Crystal Orientation, and Damage Evolution During Thermal Cycling in High-Strain Wafer-Level Chip-Scale Packages. Journal of Electronic Materials, 2015, 44, 895-908.	1.0	39

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73	Computational design of metal oxides to enhance the wetting and adhesion of silver-based brazes on yttria-stabilized-zirconia. Acta Materialia, 2018, 152, 229-238.	3.8	39
74	Low Energy Laser Therapy in Rheumatoid Arthritis. Scandinavian Journal of Rheumatology, 1994, 23, 145-147.	0.6	37
75	Analysis of Slip Behavior in a Single Shear Lap Lead-Free Solder Joint During Simple Shear at 25Â°C and 0.1/s. Journal of Electronic Materials, 2009, 38, 2694-2701.	1.0	37
76	Fundamentals of Lead-Free Solder Interconnect Technology. , 2015, , .		37
77	Orientation determination and defect analysis in the near-cubic intermetallic Î³-TiAl using SACP, ECCI, and EBSD. Intermetallics, 2003, 11, 215-223.	1.8	36
78	Grain boundary sliding on near-7Â°, 14Â°, and 22Â° special boundaries during thermomechanical cycling in surface-mount lead-free solder joint specimens. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 421, 22-34.	2.6	35
79	Characterization and modeling of heterogeneous deformation in commercial purity titanium. Jom, 2011, 63, 66-73.	0.9	35
80	An experimental and theoretical investigation of the effect of local colony orientations and misorientation on cavitation during hot working of Ti-6Al-4V. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 129-140.	1.1	34
81	The tensile and tensile-creep deformation behavior of Tiâ€“8Alâ€“1Moâ€“1V(wt%). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 289-300.	2.6	34
82	Phase Dependent Tool Wear in Turning Ti-6Al-4V Using Polycrystalline Diamond and Carbide Inserts. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	1.3	33
83	The Effect of Cooling Rate on Grain Orientation and Misorientation Microstructure of SAC105 Solder Joints Before and After Impact Drop Tests. Journal of Electronic Materials, 2014, 43, 2521-2529.	1.0	33
84	Creep deformation behavior in eutectic Sn-Ag solder joints using a novel mapping technique. Journal of Electronic Materials, 1999, 28, 1270-1275.	1.0	32
85	Characterization of Recrystallization and Microstructure Evolution in Lead-Free Solder Joints Using EBSD and 3D-XRD. Journal of Electronic Materials, 2013, 42, 319-331.	1.0	32
86	Transient porous nickel interlayers for improved silver-based Solid Oxide Fuel Cell brazes. Acta Materialia, 2018, 148, 156-162.	3.8	31
87	The effect of microstructure on the relationship between grain boundary sliding and slip transmission in high purity aluminum. International Journal of Plasticity, 2020, 135, 102818.	4.1	30
88	Comparisons of experimental and computed crystal rotations caused by slip in crept and thermomechanically fatigued dual-shear eutectic Sn-Ag solder joints. Journal of Electronic Materials, 2003, 32, 1455-1462.	1.0	28
89	Effect of thermomechanical processing on the creep behaviour of Udimet alloy 188. Philosophical Magazine, 2008, 88, 641-664.	0.7	28
90	Anisotropic plasticity and cavity growth during upset forging of Tiâ€“6Alâ€“4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 405, 201-213.	2.6	27

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91	Microstructural characterization of polycrystalline materials by synchrotron X-rays. Frontiers of Materials Science, 2013, 7, 156-169.	1.1	27
92	Influence of High-G Mechanical Shock and Thermal Cycling on Localized Recrystallization in Sn-Ag-Cu Solder Interconnects. Journal of Electronic Materials, 2014, 43, 69-79.	1.0	27
93	Crystal plasticity finite element study of deformation behavior in commonly observed microstructures in lead free solder joints. Computational Materials Science, 2014, 85, 236-243.	1.4	26
94	Effects of Pb contamination on the eutectic Snâ€Ag solder joint. Soldering and Surface Mount Technology, 2001, 13, 26-29.	0.9	25
95	The effects of HIP pore closure and age hardening on primary creep and tensile property variations in a TiAl XDâ„¢ alloy with 0.1wt.% carbon. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 463, 208-215.	2.6	24
96	The effect of grain boundary normal on predicting microcrack nucleation using fracture initiation parameters in duplex TiAl. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 432, 281-291.	2.6	22
97	Microstructural Evolution of SAC305 Solder Joints in Wafer Level Chip-Scale Packaging (WLCSP) with Continuous and Interrupted Accelerated Thermal Cycling. Journal of Electronic Materials, 2016, 45, 3013-3024.	1.0	22
98	A numerical force and stress analysis on a thin twin layer in TiAl. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 72, 1201-1219.	0.8	21
99	On Predicting Nucleation of Microcracks Due to Slip-Twin Interactions at Grain Boundaries in Duplex Near Î³-TiAl. Journal of Engineering Materials and Technology, Transactions of the ASME, 2008, 130, .	0.8	21
100	Impact of Microstructure Evolution and Isothermal Aging on Sn-Ag-Cu Solder Interconnect Board-Level High-G Mechanical Shock Performance and Crack Propagation. Journal of Electronic Materials, 2012, 41, 273-282.	1.0	21
101	Microstructure and Sn Crystal Orientation Evolution in Sn-3.5Ag Lead-Free Solders in High-Temperature Packaging Applications. Journal of Electronic Materials, 2014, 43, 57-68.	1.0	21
102	Changes in microstructure during primary creep of a Ti-47Al-2Nb-1Mn-0.5W-0.5Mo-0.2Si alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 89-98.	1.1	20
103	Correlation Between Sn Grain Orientation and Corrosion in Sn-Ag-Cu Solder Interconnects. Journal of Electronic Materials, 2011, 40, 1895-1902.	1.0	20
104	Observation of mechanical twinning during creep deformation in TiAl. Scripta Metallurgica Et Materialia, 1992, 27, 1301-1306.	1.0	19
105	Damage accumulation under repeated reverse stressing of Sn-Ag solder joints. Journal of Electronic Materials, 2002, 31, 1181-1189.	1.0	19
106	Revealing the role of nitrogen on hydride nucleation and stability in pure niobium using first-principles calculations. Superconductor Science and Technology, 2018, 31, 115007.	1.8	19
107	Assessment of surface and bulk-dominated methodologies to measure critical resolved shear stresses in hexagonal materials. Acta Materialia, 2020, 184, 241-253.	3.8	18
108	Grain Boundary Responses to Heterogeneous Deformation in Tantalum Polycrystals. Jom, 2014, 66, 121-128.	0.9	17

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109	Superplastic Deformation Mechanisms of Mechanically Alloyed Aluminum. Materials Transactions, JIM, 1991, 32, 1149-1158.	0.9	16
110	On mechanical properties of the superconducting niobium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 435-436, 658-665.	2.6	16
111	Methodology for Analyzing Strain States During InÂSitu Thermomechanical Cycling in Individual Lead-Free Solder Joints Using Synchrotron Radiation. Journal of Electronic Materials, 2009, 38, 2712-2719.	1.0	16
112	The Role of Pd in Sn-Ag-Cu Solder Interconnect Mechanical Shock Performance. Journal of Electronic Materials, 2013, 42, 215-223.	1.0	16
113	Analysis of the Deformation Behavior in Tension and Tension-Creep of Ti-3Al-2.5V (wtÂpct) at 296ÂK and 728ÂK (23ÂÂ°C and 455ÂÂ°C) Using In Situ SEM Experiments. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 6053-6066.	1.1	16
114	Cooperative grain-boundary sliding in mechanically alloyed in 90211 alloy during high strain rate superplasticity. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1993, 24, 1208-1212.	1.4	15
115	Surface damage accumulation in Snâ€“Ag solder joints under large reversed strains. Journal of Materials Science: Materials in Electronics, 2002, 13, 335-344.	1.1	15
116	Development of low angle grain boundaries in lightly deformed superconducting niobium and their influence on hydride distribution and flux perturbation. Journal of Applied Physics, 2017, 121, .	1.1	15
117	On the superplastic behaviour of mechanically alloyed aluminium alloys. Scripta Metallurgica Et Materialia, 1992, 26, 1605-1608.	1.0	14
118	Environmental concerns and materials issues in manufactured solder joints. , 0, , .		14
119	Cold rolling evolution in high purity niobium using a tapered wedge specimen. Physica C: Superconductivity and Its Applications, 2006, 441, 118-121.	0.6	14
120	Characterization of etch pits found on a large-grain bulk niobium superconducting radio-frequency resonant cavity. Physical Review Special Topics: Accelerators and Beams, 2010, 13, .	1.8	14
121	Cavitation and fracture of mechanically alloyed aluminium at high homologous temperatures. Journal of Materials Science, 1990, 25, 4125-4132.	1.7	13
122	Some Critical Aspects of High Strain Rate Superplasticity. Materials Science Forum, 1997, 233-234, 217-234.	0.3	13
123	The effect of nitrogen on competitive growth mechanisms of diamond thin films. Diamond and Related Materials, 2000, 9, 236-240.	1.8	13
124	Using OIM to investigate the microstructural evolution of Ti-6Ai-4V. Jom, 2002, 54, 31-36.	0.9	13
125	Impact of Isothermal Aging on Long-Term Reliability of Fine-Pitch Ball Grid Array Packages with Sn-Ag-Cu Solder Interconnects: Die Size Effects. Journal of Electronic Materials, 2011, 40, 1967-1976.	1.0	13
126	Impact of Isothermal Aging and Sn Grain Orientation on the Long-Term Reliability of Wafer-Level Chip-Scale Package Snâ€“Agâ€“Cu Solder Interconnects. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 496-501.	1.4	13

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127	Heterogeneous Internal Strain Evolution in Commercial Purity Titanium Due to Anisotropic Coefficients of Thermal Expansion. Jom, 2020, 72, 39-47.	0.9	13
128	Grain boundary slip transfer classification and metric selection with artificial neural networks. Scripta Materialia, 2020, 185, 71-75.	2.6	13
129	The role of adiabatic heating on high rate superplastic elongation. Scripta Metallurgica Et Materialia, 1990, 24, 1003-1008.	1.0	12
130	Nanoscale nonlinear radio frequency properties of bulk Nb: Origins of extrinsic nonlinear effects. Physical Review B, 2015, 92, .	1.1	12
131	A Matlab toolbox to analyze slip transfer through grain boundaries. IOP Conference Series: Materials Science and Engineering, 2015, 82, 012090.	0.3	12
132	Electromigration and Thermomechanical Fatigue Behavior of Sn0.3Ag0.7Cu Solder Joints. Journal of Electronic Materials, 2018, 47, 1881-1895.	1.0	12
133	Texture changes during superplastic deformation of mechanically alloyed aluminium IN90211. Journal of Materials Science, 1993, 28, 2413-2422.	1.7	11
134	Influence of temperature on segregation in 2009 Al-SiCw composite and its implication on high strain rate superplasticity. Scripta Materialia, 1996, 35, 247-252.	2.6	11
135	Nanoindentation Characterization of Microphases i n Sn-3.5Ag Eutectic Solder Joints. Materials Research Society Symposia Proceedings, 1998, 522, 339.	0.1	11
136	Strain-path effects during hot working of Ti-6Al-4V with a colony-alpha microstructure. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1556-1559.	1.1	11
137	Mechanical Properties of High RRR Niobium With Different Texture. IEEE Transactions on Applied Superconductivity, 2007, 17, 1291-1294.	1.1	11
138	InÂSitu Synchrotron Characterization of Melting, Dissolution, and Resolidification in Lead-Free Solders. Journal of Electronic Materials, 2012, 41, 262-272.	1.0	11
139	Near-field microwave magnetic nanoscopy of superconducting radio frequency cavity materials. Applied Physics Letters, 2014, 104, .	1.5	11
140	Microstructural impact on flank wear during turning of various Ti-6Al-4V alloys. Wear, 2017, 384-385, 72-83.	1.5	11
141	Superplasticity in Hard-To-Machine Materials. Annual Review of Materials Research, 1996, 26, 75-106.	5.5	10
142	High-strain-rate superplasticity in aluminum-matrix composites. Jom, 1996, 48, 52-57.	0.9	10
143	The interfacial microstructure of joined single crystal and polycrystalline alumina. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 360, 228-236.	2.6	10
144	Microstructural Refinement of Niobium for Superconducting RF Cavities. IEEE Transactions on Applied Superconductivity, 2007, 17, 1305-1309.	1.1	9

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145	Evolution of crystalline orientation and texture during solid phase dieâ€drawing of <scp>PP</scp>â€Talc composites. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1528-1538.	2.4	9
146	The Origin of Flank Wear in Turning Ti-6Al-4V. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	1.3	9
147	Dual Atmosphere Isothermal Aging and Rapid Thermal Cycling of Ag-Ni and Ag-CuO Stainless Steel to Zirconia Braze Joints. Journal of the Electrochemical Society, 2019, 166, F594-F603.	1.3	9
148	Cavitation in the neck of a deformed Ti-47Al-2Nb-2Cr creep specimen. Scripta Materialia, 1996, 34, 1647-1654.	2.6	8
149	The interfacial microstructure of zirconia and MaCorâ„¢ joined using spin-on interlayers. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 307, 74-79.	2.6	8
150	Transitions in morphology observed in nitrogen/methaneâ€“hydrogen depositions of polycrystalline diamond films. Journal of Applied Physics, 2001, 89, 6062-6068.	1.1	8
151	Mechanical properties, microstructure, and texture of electron beam butt welds in high purity niobium. , 0, , .		8
152	Multiscale Modeling of the Effect of Micro-alloying Mn and Sb on the Viscoplastic Response of SAC105 Solder. Journal of Electronic Materials, 2014, 43, 1119-1130.	1.0	8
153	Extrusion Textures in NiAl and Reaction Milled NiAl/AlN Composites. Materials Research Society Symposia Proceedings, 1992, 273, 165.	0.1	7
154	Microstructural effects on the behavior of Snâ€“Ag solder joints under repeated reverse stressing. Journal of Materials Science: Materials in Electronics, 2003, 14, 157-164.	1.1	7
155	Effects of a silica spin-on interlayer and heating mode on the joining of zirconia and MaCorâ„¢. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 357, 67-74.	2.6	7
156	The role of elastic and plastic anisotropy of Sn on microstructure and damage evolution in lead-free solder joints. , 2011, , .		7
157	High-Frequency Nonlinear Response of Superconducting Cavity-Grade <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Nb</mml:mi></mml:math> ASurfaces. Physical Review Applied, 2019, 11, .	1.5	7
158	Effect of strain rate on tensile mechanical properties of high-purity niobium single crystals for SRF applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 797, 140258.	2.6	7
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