

Alexander H King

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ext. papers

5,221
ext. citations

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avg, IF

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L-index

#	Paper	IF	Citations
179	CSL/DSC Lattice model for general crystal-crystal boundaries and their line defects. <i>Acta Metallurgica</i> , 1982 , 30, 1453-1470		283
178	Novel One-Phase Synthesis of Thiol-Functionalized Gold, Palladium, and Iridium Nanoparticles Using Superhydride. <i>Langmuir</i> , 1999 , 15, 3486-3491	4	264
177	Self-Assembled Monolayers of Alkanesulfonic and -phosphonic Acids on Amorphous Iron Oxide Nanoparticles. <i>Langmuir</i> , 1999 , 15, 7111-7115	4	235
176	On the size-dependent phase transformation in nanoparticulate zirconia. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000 , 286, 169-178	5.3	214
175	Grain rotation in thin films of gold. <i>Acta Materialia</i> , 1998 , 46, 2623-2633	8.4	178
174	Diffusion induced grain boundary migration. <i>International Materials Reviews</i> , 1987 , 32, 173-189	16.1	141
173	The effects on grain-boundary processes of the steps in the boundary plane associated with the cores of grain-boundary dislocations. <i>The Acta Crystallographica Section A, Crystal Physics, Diffraction and General Crystallography</i> , 1980 , 36, 335-343		141
172	A study of the interactive effects of strain, strain rate and temperature in severe plastic deformation of copper. <i>Acta Materialia</i> , 2009 , 57, 5491-5500	8.4	118
171	Surface-Induced Ordering in Asymmetric Block Copolymers. <i>Macromolecules</i> , 1994 , 27, 4000-4010	5.5	107
170	Nanomaterial powders and deposits prepared by flame spray processing of liquid precursors. <i>Scripta Materialia</i> , 1997 , 8, 61-74		95
169	The effect of triple-junction drag on grain growth. <i>Acta Materialia</i> , 2000 , 48, 397-403	8.4	95
168	Large strain deformation and ultra-fine grained materials by machining. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 410-411, 358-363	5.3	92
167	Severe plastic deformation (SPD) of titanium at near-ambient temperature. <i>Acta Materialia</i> , 2006 , 54, 3691-3700	8.4	90
166	Microstructure and stability of nanocrystalline aluminum 6061 created by large strain machining. <i>Acta Materialia</i> , 2005 , 53, 4781-4793	8.4	89
165	Deformation of hierarchically twinned martensite. <i>Acta Materialia</i> , 2010 , 58, 5242-5261	8.4	85
164	High performance aluminum-berium alloys for high-temperature applications. <i>Materials Horizons</i> , 2017 , 4, 1070-1078	14.4	81
163	On the mechanism of diffusion-induced boundary migration. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1981 , 44, 333-340		78

162	Low-cost manufacturing process for nanostructured metals and alloys. <i>Journal of Materials Research</i> , 2002 , 17, 2484-2488	2.5	75
161	Nanomaterial Deposits Formed by DC Plasma Spraying of Liquid Feedstocks. <i>Journal of the American Ceramic Society</i> , 2005 , 81, 121-128	3.8	72
160	Preparation of nanophase materials by thermal spray processing of liquid precursors. <i>Scripta Materialia</i> , 1997 , 9, 137-140		70
159	The Geometric and Thermodynamic Properties of Grain Boundary Junctions. <i>Journal of Materials Science</i> , 1999 , 7, 251-271		66
158	Characteristics of aluminum 6061-T6 deformed to large plastic strains by machining. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 410-411, 364-368	5.3	63
157	On the mechanisms of point-defect absorption by grain and twin boundaries. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1980 , 42, 495-512		63
156	Grain boundary diffusion and growth of titanium silicide layers on silicon. <i>Journal of Electronic Materials</i> , 1990 , 19, 1177-1183	1.9	62
155	Transmission electron microscopy study of rapid solidification of plasma sprayed zirconia [part I. First splat solidification. <i>Thin Solid Films</i> , 2001 , 397, 30-39	2.2	60
154	Severe plastic deformation (SPD) and nanostructured materials by machining. <i>Journal of Materials Science</i> , 2007 , 42, 1529-1541	4.3	57
153	Fabrication and characterization of solid-state nanopores using a field emission scanning electron microscope. <i>Applied Physics Letters</i> , 2006 , 88, 103109	3.4	57
152	Effect of different substrate conditions upon interface with plasma sprayed zirconia—TEM study. <i>Surface and Coatings Technology</i> , 2002 , 157, 238-246	4.4	52
151	Resistivity, thermopower and the correlation to infrared active vibrations of Mn _{1.56} Co _{0.96} Ni _{0.48} O ₄ spinel films sputtered in an oxygen partial pressure series. <i>Journal of Applied Physics</i> , 1999 , 86, 514-523	2.5	52
150	Step heights associated with grain boundary dislocations in cubic crystals. <i>Acta Metallurgica</i> , 1982 , 30, 419-427		49
149	Transmission electron microscopy study of rapid solidification of plasma sprayed zirconia [part II. Interfaces and subsequent splat solidification. <i>Thin Solid Films</i> , 2001 , 397, 40-48	2.2	48
148	Focused ion beam/lift-out transmission electron microscopy cross sections of block copolymer films ordered on silicon substrates. <i>Polymer</i> , 2001 , 42, 1613-1619	3.9	46
147	What does it mean to be special? The significance and application of the Brandon criterion. <i>Journal of Materials Science</i> , 2006 , 41, 7675-7682	4.3	44
146	The interactions of self-interstitials with twin boundaries. <i>Philosophical Magazine</i> , 2013 , 93, 1268-1278	1.6	43
145	On the availability of dislocation reactions at grain boundaries in cubic ordered alloys. <i>Scripta Metallurgica</i> , 1987 , 21, 1115-1119		40

144	Optimization of strength and ductility in nanotwinned ultra-fine grained Ag: Twin density and grain orientations. <i>Acta Materialia</i> , 2015 , 96, 378-389	8.4	39
143	Segregation of Bismuth to Triple Junctions in Copper. <i>Microscopy and Microanalysis</i> , 1997 , 3, 417-422	0.5	38
142	Large-angle grain-boundary structures in hexagonal close-packed metals. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1988 , 57, 431-455		38
141	Effect of stacking fault energy on mechanism of plastic deformation in nanotwinned FCC metals. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2015 , 23, 055003	2	37
140	Interactions between lattice partial dislocations and grain boundaries. <i>Materials Science and Engineering</i> , 1984 , 66, 227-237		37
139	Thermal stability and strength of deformation microstructures in pure copper. <i>Acta Materialia</i> , 2012 , 60, 4107-4116	8.4	36
138	The misorientation dependence of diffusion induced grain boundary migration. <i>Scripta Metallurgica</i> , 1986 , 20, 1401-1404		36
137	Triple lines in materials science and engineering. <i>Scripta Materialia</i> , 2010 , 62, 889-893	5.6	35
136	The early stages of plastic yielding in polycrystalline gold thin films. <i>Acta Materialia</i> , 2001 , 49, 237-247	8.4	35
135	Infrared optical properties of Mn _{1.56} Co _{0.96} Ni _{0.48} O ₄ spinel films sputter deposited in an oxygen partial pressure series. <i>Journal of Applied Physics</i> , 1999 , 86, 2590-2601	2.5	35
134	Misorientation effects upon diffusion induced grain boundary migration in the copper-zinc system. <i>Acta Metallurgica</i> , 1988 , 36, 2827-2839		35
133	Effects of stable and unstable stacking fault energy on dislocation nucleation in nano-crystalline metals. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016 , 24, 085017	2	34
132	Effects of solutes on dislocation nucleation from grain boundaries. <i>International Journal of Plasticity</i> , 2017 , 90, 146-155	7.6	33
131	Thermally stable nanostructured materials from severe plastic deformation of precipitation-treatable Ni-based alloys. <i>Scripta Materialia</i> , 2008 , 58, 675-678	5.6	32
130	When twins collide: Twin junctions in nanocrystalline nickel. <i>Acta Materialia</i> , 2016 , 113, 301-310	8.4	32
129	Direct observation of diffusional creep via TEM in polycrystalline thin films of gold. <i>Acta Materialia</i> , 1998 , 46, 6195-6203	8.4	30
128	Strain fields and energies of grain boundary triple junctions. <i>Acta Materialia</i> , 2008 , 56, 5728-5736	8.4	26
127	Coincidence orientations of crystals in tetragonal systems, with applications to YBa ₂ Cu ₃ O ₇ <i>Acta Crystallographica Section B: Structural Science</i> , 1990 , 46, 117-125		26

- 126 Severe Plastic Deformation of Difficult-to-Deform Materials at Near-Ambient Temperatures. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 1899-1905^{2,3} 23
- 125 Twin-corner disclinations in YBa₂Cu₃O_{7- δ} *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1993**, 67, 1037-1044 23
- 124 The further geometry of grain boundaries in hexagonal close-packed metals. *Acta Crystallographica Section B: Structural Science*, **1987**, 43, 416-422 23
- 123 Addressing Criticality in Rare Earth Elements via Permanent Magnets Recycling. *Jom*, **2018**, 70, 115-123 2.1 22
- 122 Thermal effects on domain orientation of tetragonal piezoelectrics studied by in situ x-ray diffraction. *Applied Physics Letters*, **2006**, 88, 242901 3-4 22
- 121 Bicrystal studies of diffusion-induced grain boundary migration in Cu/Zn. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1990**, 21, 2363-2367 22
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- 119 Determination of the crystallographic directions and planes of features and of the misorientations of crystals with high accuracy and internal estimation of errors. *Journal of Electron Microscopy Technique*, **1987**, 6, 55-61 21
- 118 Properties and effects of pure steps or facets on grain boundaries: Application to diffusion induced grain boundary migration. *Scripta Metallurgica*, **1981**, 15, 1221-1225 19
- 117 Vacancies, twins, and the thermal stability of ultrafine-grained copper. *Applied Physics Letters*, **2011**, 99, 231911 3-4 17
- 116 On the kinetics of dislocation absorption by grain boundaries. *Scripta Metallurgica*, **1985**, 19, 1517-1520 17
- 115 Effects of Schmid factor and slip nucleation on deformation mechanism in columnar-grained nanotwinned Ag and Cu. *Journal of Applied Physics*, **2015**, 117, 085302 2.5 16
- 114 Behavior of grain boundary resistivity in metals predicted by a two-dimensional model. *Journal of Applied Physics*, **2000**, 88, 2623-2633 2.5 16
- 113 Toward Understanding Polycrystalline Aggregate Structure: Analysis of a Twin Intersection and the Interactions Between Interfaces in Diamond. *Journal of Materials Science*, **1997**, 5, 287-303 15
- 112 Dislocation structures in large-angle grain boundaries in hexagonal close-packed materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1989**, 113, 121-127 5.3 15
- 111 Intergranular fracture by slip/grain boundary interaction. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1990**, 21, 2431-2436 15
- 110 Slip, twinning, and fracture at a grain boundary in the L12 ordered structure at a 9° tilt boundary. *Journal of Materials Research*, **1988**, 3, 848-855 2.5 15
- 109 Mechanism of structural transformation in bismuth titanate. *Applied Physics Letters*, **2005**, 86, 182902 3-4 14

108	Generalizing the coincidence site lattice model to non-cubic materials. <i>Journal of Physics and Chemistry of Solids</i> , 1994 , 55, 1023-1033	3.9	14
107	Calculations of sink strength and bias for point-defect absorption by dislocations in arrays. <i>Radiation Effects</i> , 1981 , 54, 169-176		14
106	Effects of Ag and Zr solutes on dislocation emission from $\Sigma 1(332)[110]$ symmetric tilt grain boundaries in Cu: Bigger is not always better. <i>International Journal of Plasticity</i> , 2018 , 109, 79-87	7.6	14
105	Vacancy deposition during diffusion-induced grain boundary migration. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1986 , 54, L3-L7		13
104	Our elemental footprint. <i>Nature Materials</i> , 2019 , 18, 408-409	27	12
103	Anomalous triple junction surface pits in nanocrystalline zirconia thin films and their relationship to triple junction energy. <i>Acta Materialia</i> , 2009 , 57, 3662-3670	8.4	12
102	Triple junction energy and prospects for measuring it. <i>Materials Science and Technology</i> , 2007 , 23, 505-508	10.5	12
101	Non-destructive evaluation of delamination in ceramic thin films on metal substrates by scanning electron microscopy. <i>Thin Solid Films</i> , 2001 , 385, 22-28	2.2	12
100	The incidence of symmetric tilt grain boundaries in polycrystalline thin films of gold. <i>Scripta Materialia</i> , 1996 , 34, 1723-1727	5.6	12
99	Some problems with the grain-boundary-dislocation climb mechanism for diffusion-induced grain boundary migration, and possible solutions. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1983 , 48, L39-L44		12
98	Further comments on the appropriateness of stacking fault energy - to - mechanical property correlations. <i>Scripta Metallurgica</i> , 1982 , 16, 1181-1182		12
97	Thermal effects on mechanical grinding-induced surface texture in tetragonal piezoelectrics. <i>Journal of Materials Research</i> , 2007 , 22, 2845-2850	2.5	11
96	Observations of grain boundary structure in zinc. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1991 , 63, 1023-1033		11
95	On the nucleation of diffusion induced recrystallization. <i>Scripta Metallurgica</i> , 1987 , 21, 649-652		11
94	Plasticity enhancement through disordering at grain boundaries. <i>Scripta Metallurgica Et Materialia</i> , 1991 , 25, 1249-1252		10
93	Effects of grain boundary disorder on dislocation emission. <i>Materials Letters</i> , 2019 , 237, 303-305	3.3	10
92	Dissociation of grain boundaries induced by changes of composition, the ejection of dislocations from grain boundaries, and the nucleation of diffusion induced grain boundary migration. <i>Acta Metallurgica Et Materialia</i> , 1992 , 40, 551-558		9
91	An unexpected grain size effect in diffusion induced grain boundary migration. <i>Scripta Metallurgica</i> , 1984 , 18, 1341-1343		9

90	The Rare Earths as Critical Materials. <i>Fundamental Theories of Physics</i> , 2016 , 50, 19-46	0.8	9
89	Solute effects on interfacial dislocation emission in nanomaterials: Nucleation site competition and neutralization. <i>Scripta Materialia</i> , 2018 , 154, 12-15	5.6	9
88	Some further microstructural characteristics of face-centered cubic polycrystalline metal thin films. <i>Journal of Electronic Materials</i> , 1997 , 26, 987-995	1.9	8
87	Transformation of ancient Chinese and model two-phase bronze surfaces to smooth adherent patinas. <i>Phase Transitions</i> , 2008 , 81, 217-232	1.3	8
86	Growth of columnar grains during zirconia-yttria splat solidification. <i>Journal of Materials Science Letters</i> , 1999 , 18, 1517-1519		8
85	Analysis of the grain boundary misorientation distribution in polycrystalline gold thin films using minimal data. <i>Scripta Materialia</i> , 2000 , 42, 301-306	5.6	7
84	Transmission electron microscopy detection of microtexture variations and their effects on thin film stability. <i>Journal of Electronic Materials</i> , 1994 , 23, 1035-1041	1.9	7
83	Grain Growth Suppression and Enhancement by Interdiffusion in Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 343, 33		7
82	A TEM Investigation of the Effects of Tensile Stress on Thin Film Microstructure and Surface Morphology. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 356, 75		7
81	Overcoming mechanical fragility in Sm-Co permanent magnet materials. <i>Acta Materialia</i> , 2020 , 196, 528-538	8.8	6
80	Control of porosity in fluoride thin films prepared by vapor deposition. <i>Journal of Materials Research</i> , 2007 , 22, 2012-2016	2.5	6
79	On the design of controlled tricrystal specimens for the systematic investigation of static grain boundary triple junction properties. <i>Journal of Materials Science</i> , 2005 , 40, 2795-2802	4.3	6
78	Bicrystal growth and characterization of copper twist grain boundaries. <i>Journal of Crystal Growth</i> , 2001 , 222, 392-398	1.6	6
77	The role of segregation in diffusion-induced grain boundary migration. <i>Acta Materialia</i> , 2001 , 49, 1-11	8.4	6
76	Diffusion induced grain boundary migration in the zinc-cadmium system. <i>Acta Materialia</i> , 1996 , 44, 2983-2998	8.1	6
75	Complications of diffusional creep at very small grain sizes. <i>Scripta Metallurgica Et Materialia</i> , 1994 , 31, 1493-1494		6
74	The interaction between dislocations and intergranular cracks. <i>Journal of Materials Research</i> , 1991 , 6, 314-323	2.5	6
73	Tables of coincidence orientations for ordered tetragonal L10 alloys for a range of axial ratios. <i>Acta Crystallographica Section B: Structural Science</i> , 1993 , 49, 266-272		6

72	Evidence of the formation of twins by deformation and growth accidents in evaporated thin films of gold. <i>Physica Status Solidi A</i> , 1983 , 76, 629-636		6
71	Remarks on the energy-misorientation relationship of grain boundaries. <i>Scripta Metallurgica</i> , 1980 , 14, 1157-1160		6
70	Mechanisms of Skyrmion and Skyrmion Crystal Formation from the Conical Phase. <i>Nano Letters</i> , 2020 , 20, 4731-4738	11.5	5
69	Grain growth and texture development in lithium fluoride thin films. <i>Journal of Materials Research</i> , 2008 , 23, 452-462	2.5	5
68	Texture and Symmetry Relationships in Piezoelectric Materials. <i>Materials Science Forum</i> , 2005 , 495-497, 13-22	0.4	5
67	Size-driven domain reorientation in hydrothermally derived lead titanate nanoparticles. <i>Journal of Materials Research</i> , 2005 , 20, 558-562	2.5	5
66	Grain Boundary Resistivity and Electrically Induced Grain Boundary Migration (EIGM) in Metallic Bamboo Microstructures. <i>Journal of Materials Science</i> , 1999 , 7, 33-44		5
65	Grain Rotation and Microstructure Development in Thin Films of Gold. <i>Materials Science Forum</i> , 1996 , 204-206, 355-360	0.4	5
64	A geometrical rationalization of the special properties of the 141° [001] grain boundary in $\text{YBa}_2\text{Cu}_3\text{O}_7$. <i>Journal of Applied Physics</i> , 1993 , 74, 4627-4630	2.5	5
63	The geometry and properties of ledges in interfaces. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991 , 22, 1177-1183		5
62	Effects of thermomechanical treatment on the progress of diffusion-induced grain boundary migration. <i>Materials Science and Engineering</i> , 1986 , 83, 109-114		5
61	Effects of solutes on the thermal stability of nanotwinned materials. <i>Philosophical Magazine</i> , 2014 , 94, 2875-2885	1.6	4
60	Phase Transformation as a Function of Particle Size in Nanocrystalline Zirconia. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 481, 613		4
59	Tem Study of Yielding in Polycrystalline Gold Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 505, 383		4
58	Localized Texture Formation and its Detection in Polycrystalline Thin Films of Gold. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 317, 425		4
57	Hillock Formation in Tensile Loaded Films. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 391, 73		4
56	TEM observations of the mechanism of delamination of chromium films from silicon substrates. <i>Journal of Materials Research</i> , 1992 , 7, 359-366	2.5	4
55	Energy-minimizing structures for interfacial dislocation arrays: Non-planar configuration in small-angle grain boundaries. <i>Materials Science and Engineering</i> , 1986 , 81, 51-59		4

54	Effects of residual (or internal) stress on ferroelectric domain wall motion in tetragonal lead titanate. <i>Journal of Materials Research</i> , 2009 , 24, 1803-1809	2.5	3
53	The properties of DSC lattices at coincidence-site lattice related triple junctions. <i>Scripta Materialia</i> , 2000 , 43, 175-179	5.6	3
52	Triple Junction Structure and Properties. <i>Materials Science Forum</i> , 1998 , 294-296, 91-94	0.4	3
51	On the correlation of grain boundary misorientation distribution with critical current in bulk processed YBa ₂ Cu ₃ O _{7-x} . <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1998 , 78, 1037-1049		3
50	Grain Boundaries of Finite Extent. <i>Materials Science Forum</i> , 1996 , 207-209, 125-128	0.4	3
49	Grain Rotation in Thin Films of Gold. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 403, 15		3
48	Adsorption, surface energy and the driving force for the migration of grain boundaries in substitutional alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1990 , 123, 39-43	5.3	3
47	Structure of a small angle tilt grain boundary in zinc. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1988 , 19, 2359-2363		3
46	When agendas align: Critical materials and green electronics 2016 ,		3
45	Read-Shockley Boundaries in Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 472, 113		2
44	Dislocation-indenter interaction in nanoindentation. <i>Journal of Applied Physics</i> , 2005 , 98, 023502	2.5	2
43	Grain Boundaries of Finite Length. <i>Materials Science Forum</i> , 1995 , 189-190, 143-148	0.4	2
42	Grain boundary viscosity at high temperature and the grain boundary phase transformation. <i>Scripta Metallurgica</i> , 1985 , 19, 291-294		2
41	Nanostructured Materials by Machining 2005 , 981		1
40	Interfaces in Rapidly Solidified Zirconia-Yttria. <i>Materials Science Forum</i> , 1998 , 294-296, 779-782	0.4	1
39	Dynamic Properties of Interfaces. <i>Materials Science Forum</i> , 1995 , 189-190, 19-30	0.4	1
38	Selective Dissolution in Copper-Tin Alloys: Formation of Corrosion-Resistant Patina on Ancient Chinese Bronze Mirrors. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 432, 283		1
37	Grain Rotation and Grain Boundary Selection in Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 458, 301		1

- 36 Analysis of Symmetric Triple Junctions. *Materials Science Forum*, **1996**, 207-209, 257-260 0.4 1
- 35 Principles of grain boundary geometry in noncubic materials, with applications to YBa₂Cu₃O_{7- δ}
Journal of Materials Science, **1994**, 1, 347 1
- 34 Grain Growth in Titanium Silicide Films During the Formation Reaction. *Materials Research Society Symposia Proceedings*, **1990**, 202, 137 1
- 33 Applications of computer simulation techniques to problems encountered in conventional plasma spraying. *Materials Science and Engineering*, **1985**, 70, 211-216 1
- 32 Room-temperature grain boundary diffusion data measured from historical artifacts. *International Journal of Materials Research*, **2005**, 96, 1187-1192 1
- 31 Read-Shockley Grain Boundaries and the Herring Equation. *Materials Research Society Symposia Proceedings*, **2008**, 1090, 51801 0
- 30 Mitigating criticality, part III: Improving the stewardship of existing supplies **2021**, 205-234 0
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- 28 Curling and Annealing Study of Sputtered Thin Spinel Films Delaminated from Lift-Off Polyimide. *Materials Research Society Symposia Proceedings*, **1997**, 505, 487
- 27 Analyses of the Grain Boundary Misorientation and Oxygen Content of Bulk Processed YBa₂Cu₃O_{7- δ}
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- 26 Large Strain Deformation of Single-Phase Copper Solid Solutions by Machining. *Materials Science Forum*, **2006**, 503-504, 651-656 0.4
- 25 Texture Evolution of Lithium Fluoride Thin Films by Nucleation. *Materials Research Society Symposia Proceedings*, **2006**, 979, 1
- 24 Electromechanical Cycling and Thermal Effects on Ferroelastic Domain Orientation. *Ferroelectrics*, **2006**, 334, 49-56 0.6
- 23 A Mathematical Formulation for Interfacial Diffusion, Incorporating Deviation from the Classical Random Walk Theory. *Defect and Diffusion Forum*, **2007**, 266, 63-71 0.7
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- 21 Grain Boundary Curvature in Polycrystalline Metallic Thin Films. *Materials Research Society Symposia Proceedings*, **2000**, 615, 781
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- 18 Processing Effects on The Morphology of Hydrothermally Derived Nanocrystalline Lead Titanate. *Materials Research Society Symposia Proceedings*, **2001**, 703, 1
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- 16 Primary and Secondary Grain Boundary Dislocations in Symmetric Tilt Grain Boundaries of Finite Length. *Materials Research Society Symposia Proceedings*, **1998**, 538, 407
- 15 Triple Junction Engineering: the Distribution of Triple Junctions in Polycrystalline Gold Thin Films. *Materials Research Society Symposia Proceedings*, **1999**, 586, 117
- 14 Time and Temperature Properties of Triblock Copolymer Ordering. *Materials Science Forum*, **1995**, 189-190, 161-166 0.4
- 13 Investigation of the Altered Layer on Ancient Chinese Bronze Mirrors and Model High-Tin Bronzes. *Materials Research Society Symposia Proceedings*, **1996**, 462, 19
- 12 Diffusion Induced Grain Boundary Migration in Hexagonal Materials. *Materials Science Forum*, **1996**, 207-209, 497-500 0.4
- 11 The Interaction of Twin Boundaries with Grain Boundaries in YBa₂Cu₃O_{7- δ} *Materials Research Society Symposia Proceedings*, **1994**, 357, 133
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- 7 Partial dislocation-grain boundary interactions in b.c.c. crystals. *Materials Science and Engineering*, **1984**, 66, L25-L26
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- 5 Critical materials for permanent magnets **2022**, 343-370
- 4 Effects of Triple Line Tension on the Surface Topography of polycrystals. *Materials Research Society Symposia Proceedings*, **2002**, 731, 671
- 3 Kinetics of Magnetic Skyrmion Crystal Formation from the Conical Phase. *Nano Letters*, **2021**, 21, 5547-5554
- 2 Mitigating criticality, part I: Material substitution **2021**, 123-160
- 1 Mitigating criticality, part II: Source diversification **2021**, 161-203

