Anthony D Rollett

List of Publications by Year
in descending order

368 papers	16,774 citations	14644 66 h-index	20943 115 g-index
384 all docs	384 docs citations	384 times ranked	8929 citing authors

#	Article	IF	Citations
1	Current issues in recrystallization: a review. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 238, 219-274.	2.6	1,886
2	Keyhole threshold and morphology in laser melting revealed by ultrahigh-speed x-ray imaging. Science, 2019, 363, 849-852.	6.0	592
3	Real-time monitoring of laser powder bed fusion process using high-speed X-ray imaging and diffraction. Scientific Reports, 2017, 7, 3602.	1.6	389
4	Simulation and theory of abnormal grain growthâ€"anisotropic grain boundary energies and mobilities. Acta Metallurgica, 1989, 37, 1227-1240.	2.1	334
5	Critical instability at moving keyhole tip generates porosity in laser melting. Science, 2020, 370, 1080-1086.	6.0	316
6	Design of Radiation Tolerant Materials Via Interface Engineering. Advanced Materials, 2013, 25, 6975-6979.	11.1	307
7	Operational texture analysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 132, 1-11.	2.6	297
8	Synchrotron-Based X-ray Microtomography Characterization of the Effect of Processing Variables on Porosity Formation in Laser Power-Bed Additive Manufacturing of Ti-6Al-4V. Jom, 2017, 69, 479-484.	0.9	216
9	Orientation image-based micromechanical modelling of subgrain texture evolution in polycrystalline copper. Acta Materialia, 2008, 56, 3914-3926.	3.8	201
10	The distribution of internal interfaces in polycrystals. International Journal of Materials Research, 2004, 95, 197-214.	0.8	198
11	Epitaxial CeO2films as buffer layers for highâ€temperature superconducting thin films. Applied Physics Letters, 1991, 58, 2165-2167.	1.5	196
12	Viewpoint: experimental recovery of geometrically necessary dislocation density in polycrystals. Scripta Materialia, 2003, 48, 141-145.	2.6	191
13	Grain boundary energies in body-centered cubic metals. Acta Materialia, 2015, 88, 346-354.	3.8	185
14	Analyzing the effects of powder and post-processing on porosity and properties of electron beam melted Ti-6Al-4V. Materials Research Letters, 2017, 5, 516-525.	4.1	183
15	On abnormal subgrain growth and the origin of recrystallization nuclei. Acta Materialia, 2003, 51, 2701-2716.	3.8	181
16	Distribution of grain boundaries in aluminum as a function of five macroscopic parameters. Acta Materialia, 2004, 52, 3649-3655.	3.8	181
17	Annealing twin development during recrystallization and grain growth in pure nickel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 295-303.	2.6	175
18	Defects-dictated tensile properties of selective laser melted Ti-6Al-4V. Materials and Design, 2018, 158, 113-126.	3.3	168

#	Article	IF	Citations
19	Computer simulation of recrystallization in non-uniformly deformed metals. Acta Metallurgica, 1989, 37, 627-639.	2.1	166
20	A Comprehensive Comparison of the Analytical and Numerical Prediction of the Thermal History and Solidification Microstructure of Inconel 718 Products Made by Laser Powder-Bed Fusion. Engineering, 2017, 3, 685-694.	3.2	164
21	Defects and anomalies in powder bed fusion metal additive manufacturing. Current Opinion in Solid State and Materials Science, 2022, 26, 100974.	5.6	157
22	Computer simulation of recrystallizationâ€"II. Heterogeneous nucleation and growth. Acta Metallurgica, 1988, 36, 2115-2128.	2.1	156
23	3D reconstruction of microstructure in a commercial purity aluminum. Scripta Materialia, 2006, 55, 75-80.	2.6	153
24	Ultrafast X-ray imaging of laserâ€"metal additive manufacturing processes. Journal of Synchrotron Radiation, 2018, 25, 1467-1477.	1.0	142
25	Three-Dimensional Characterization of Microstructure by Electron Back-Scatter Diffraction. Annual Review of Materials Research, 2007, 37, 627-658.	4.3	138
26	Overview of modeling and simulation of recrystallization. Progress in Materials Science, 1997, 42, 79-99.	16.0	132
27	Polycrystal Plasticity: Comparison Between Grain - Scale Observations of Deformation and Simulations. Annual Review of Condensed Matter Physics, 2014, 5, 317-346.	5.2	130
28	Statistically representative three-dimensional microstructures based on orthogonal observation sections. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 1969-1979.	1.1	126
29	Microstructural simulation of dynamic recrystallization. Acta Metallurgica Et Materialia, 1992, 40, 43-55.	1.9	124
30	A hybrid model for mesoscopic simulation of recrystallization. Computational Materials Science, 2001, 21, 69-78.	1.4	122
31	Evaluating the Effect of Processing Parameters on Porosity in Electron Beam Melted Ti-6Al-4V via Synchrotron X-ray Microtomography. Jom, 2016, 68, 765-771.	0.9	117
32	Transition between low and high angle grain boundaries. Acta Materialia, 2005, 53, 2901-2907.	3.8	112
33	Cube texture in hot-rolled aluminum alloy 1050 (AA1050)â€"nucleation and growth behavior. Acta Materialia, 2008, 56, 3098-3108.	3.8	109
34	Effect of Laser-Matter Interaction on Molten Pool Flow and Keyhole Dynamics. Physical Review Applied, 2019, 11, .	1.5	107
35	The heterophase interface character distribution of physical vapor-deposited and accumulative roll-bonded Cuâ€"Nb multilayer composites. Acta Materialia, 2012, 60, 1747-1761.	3.8	105
36	On the volume fraction dependence of particle limited grain growth. Scripta Metallurgica, 1987, 21, 675-679.	1.2	102

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37	Comparing calculated and measured grain boundary energies in nickel. Acta Materialia, 2010, 58, 5063-5069.	3.8	101
38	On the growth of abnormal grains. Scripta Materialia, 1997, 36, 975-980.	2.6	100
39	Large-strain Bauschinger effects in fcc metals and alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1990, 21, 3201-3213.	1.4	96
40	Grain growth and the puzzle of its stagnation in thin films: The curious tale of a tail and an ear. Progress in Materials Science, 2013, 58, 987-1055.	16.0	96
41	Computer Vision and Machine Learning for Autonomous Characterization of AM Powder Feedstocks. Jom, 2017, 69, 456-465.	0.9	91
42	The distribution of intervariant crystallographic planes in a lath martensite using five macroscopic parameters. Acta Materialia, 2014, 63, 86-98.	3.8	89
43	Determination of a mean orientation in electron backscatter diffraction measurements. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 3427-3438.	1.1	88
44	In-situ observation of bulk 3D grain evolution during plastic deformation in polycrystalline Cu. International Journal of Plasticity, 2015, 67, 217-234.	4.1	88
45	Real time observation of binder jetting printing process using high-speed X-ray imaging. Scientific Reports, 2019, 9, 2499.	1.6	88
46	Sparse data structure and algorithm for the phase field method. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 1189-1195.	0.8	87
47	Deriving grain boundary character distributions and relative grain boundary energies from three-dimensional EBSD data. Materials Science and Technology, 2010, 26, 661-669.	0.8	86
48	Fatigue crack initiation, slip localization and twin boundaries in a nickel-based superalloy. Current Opinion in Solid State and Materials Science, 2014, 18, 244-252.	5.6	86
49	Misorientations induced by deformation twinning in titanium. Journal of Applied Crystallography, 2010, 43, 596-602.	1.9	84
50	Towards an integrated materials characterization toolbox. Journal of Materials Research, 2011, 26, 1341-1383.	1.2	84
51	On the widths of orientation gradient zones adjacent to grain boundaries. Scripta Materialia, 2009, 61, 273-276.	2.6	83
52	Plastic deformation in Al-alloy matrix-alumina particulate composites. Scripta Metallurgica Et Materialia, 1991, 25, 27-32.	1.0	81
53	Varied heat treatments and properties of laser powder bed printed Inconel 718. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 755, 170-180.	2.6	80
54	Modeling the viscoplastic micromechanical response of two-phase materials using Fast Fourier Transforms. International Journal of Plasticity, 2011, 27, 707-727.	4.1	79

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55	Misorientation texture development during grain growth. Part I: Simulation and experiment. Acta Materialia, 2009, 57, 6102-6112.	3.8	78
56	Computer simulation of recrystallizationâ€"III. Influence of a dispersion of fine particles. Acta Metallurgica Et Materialia, 1992, 40, 3475-3495.	1.9	77
57	Three-dimensional plastic response in polycrystalline coppervianear-field high-energy X-ray diffraction microscopy. Journal of Applied Crystallography, 2012, 45, 1098-1108.	1.9	76
58	Defect structure process maps for laser powder bed fusion additive manufacturing. Additive Manufacturing, 2020, 36, 101552.	1.7	75
59	Observation of recovery and recrystallization in high-purity aluminum measured with forward modeling analysis of high-energy diffraction microscopy. Acta Materialia, 2012, 60, 4311-4318.	3.8	74
60	Observation of annealing twin nucleation at triple lines in nickel during grain growth. Acta Materialia, 2015, 99, 63-68.	3.8	73
61	Effect of anisotropic grain boundary properties on grain boundary plane distributions during grain growth. Scripta Materialia, 2005, 53, 351-355.	2.6	72
62	Crystallographic texture evolution in 1008 steel sheet during multi-axial tensile strain paths. Integrating Materials and Manufacturing Innovation, 2014, 3, 1-19.	1.2	72
63	A geometric approach to modeling microstructurally small fatigue crack formation: I. Probabilistic simulation of constituent particle cracking in AA 7075-T651. Modelling and Simulation in Materials Science and Engineering, 2008, 16, 065007.	0.8	71
64	Fast fourier transform-based modeling for the determination of micromechanical fields in polycrystals. Jom, 2011, 63, 13-18.	0.9	70
65	Mobility of low-angle grain boundaries in pure metals. Philosophical Magazine, 2010, 90, 3107-3128.	0.7	69
66	Measuring relative grain boundary energies and mobilities in an aluminum foil from triple junction geometry. Scripta Materialia, 2001, 44, 2735-2740.	2.6	68
67	Habits of Grains in Dense Polycrystalline Solids. Journal of the American Ceramic Society, 2004, 87, 724-726.	1.9	68
68	Length scale effects on recrystallization and texture evolution in Cu layers of a roll-bonded Cuâ€"Nb composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 520, 189-196.	2.6	68
69	Validating computed grain boundary energies in fcc metals using the grain boundary character distribution. Acta Materialia, 2011, 59, 5250-5256.	3.8	67
70	Tensile twin nucleation events coupled to neighboring slip observed in three dimensions. Acta Materialia, 2014, 76, 213-220.	3.8	67
71	Abnormal grain growth in three dimensions. Scripta Metallurgica Et Materialia, 1990, 24, 661-665.	1.0	66
72	Grain boundary planes: New dimensions in the grain boundary character distribution. Scripta Materialia, 2006, 54, 1005-1009.	2.6	65

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73	Stress hot spots in viscoplastic deformation of polycrystals. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 074005.	0.8	65
74	3-D simulation of spatial stress distribution in an AZ31 Mg alloy sheet under in-plane compression. International Journal of Plasticity, 2011, 27, 1702-1720.	4.1	64
75	Grain boundary energy and grain growth in Al films: Comparison of experiments and simulations. Scripta Materialia, 2006, 54, 1059-1063.	2.6	63
76	Validation of a numerical method based on Fast Fourier Transforms for heterogeneous thermoelastic materials by comparison with analytical solutions. Computational Materials Science, 2014, 87, 209-217.	1.4	61
77	Exploring the fabrication limits of thin-wall structures in a laser powder bed fusion process. International Journal of Advanced Manufacturing Technology, 2020, 110, 191-207.	1.5	60
78	Lattice stability of aluminum-rare earth binary systems: A first-principles approach. Physical Review B, 2007, 75, .	1.1	59
79	Consistent representations of and conversions between 3D rotations. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 083501.	0.8	59
80	Extracting Grain Boundary and Surface Energy from Measurement of Triple Junction Geometry. Journal of Materials Science, 1999, 7, 321-337.	1.2	58
81	Strength of nanoscale metallic multilayers. Scripta Materialia, 2018, 145, 132-136.	2.6	57
82	Effect of magnetic field applied during secondary annealing on texture and grain size of silicon steel. Scripta Materialia, 2003, 48, 1343-1347.	2.6	56
83	Determination of volume fractions of texture components with standard distributions in Euler space. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 1075-1086.	1.1	56
84	High-Energy X-Ray Diffraction Microscopy in Materials Science. Annual Review of Materials Research, 2020, 50, 395-436.	4.3	56
85	Microstructure Generation via Generative Adversarial Network for Heterogeneous, Topologically Complex 3D Materials. Jom, 2021, 73, 90-102.	0.9	56
86	On the crystallographic characteristics of nanobainitic steel. Acta Materialia, 2017, 127, 426-437.	3.8	55
87	Effect of grain size and annealing texture on the cyclic response and the substructure evolution of polycrystalline copper. Acta Metallurgica Et Materialia, 1993, 41, 2667-2679.	1.9	54
88	Plastic Flow and Microstructure Evolution during Thermomechanical Processing of a PM Nickel-Base Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2778-2798.	1.1	54
89	Formation of Annealing Twins during Recrystallization and Grain Growth in 304L Austenitic Stainless Steel. Materials Science Forum, 0, 753, 113-116.	0.3	54
90	Bridging Simulations and Experiments in Microstructure Evolution. Physical Review Letters, 2003, 90, 016106.	2.9	53

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91	Abnormal grain growth in the Potts model incorporating grain boundary complexion transitions that increase the mobility of individual boundaries. Acta Materialia, 2015, 96, 390-398.	3.8	53
92	Numerical modeling and experimental validation of thermal history and microstructure for additive manufacturing of an Inconel 718 product. Progress in Additive Manufacturing, 2018, 3, 15-32.	2.5	53
93	Recrystallization and Texture Development in Hot Rolled 1050 Aluminum. Materials Science Forum, 2004, 467-470, 357-362.	0.3	52
94	The first-principles design of ductile refractory alloys. Jom, 2008, 60, 61-65.	0.9	51
95	Abnormal grain growth of Goss grains in Feâ€“3% Si steel driven by sub-boundary-enhanced solid-state wetting: Analysis by Monte Carlo simulation. Acta Materialia, 2010, 58, 4414-4423.	3.8	51
96	A comparison of texture results obtained using precession electron diffraction and neutron diffraction methods at diminishing length scales in ordered bimetallic nanolamellar composites. Scripta Materialia, 2012, 67, 336-339.	2.6	51
97	Characterization of metal additive manufacturing surfaces using synchrotron X-ray CT and micromechanical modeling. Computational Mechanics, 2018, 61, 575-580.	2.2	51
98	Spectral methods for full-field micromechanical modelling of polycrystalline materials. Computational Materials Science, 2020, 173, 109336.	1.4	51
99	Validation of micro-mechanical FFT-based simulations using High Energy Diffraction Microscopy on Ti-7Al. Acta Materialia, 2018, 154, 273-283.	3.8	50
100	Microstructure Evolution during Supersolvus Heat Treatment of a Powder Metallurgy Nickel-Base Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1649-1661.	1.1	48
101	Back calculation of parent austenite orientation using a clustering approach. Journal of Applied Crystallography, 2013, 46, 210-215.	1.9	48
102	Toughness of dense MoSi2 and composites produced by low pressure plasma deposition. Scripta Metallurgica Et Materialia, 1992, 26, 207-212.	1.0	47
103	Extracting the relative grain boundary free energy and mobility functions from the geometry of microstructures. Scripta Materialia, 1998, 38, 531-536.	2.6	47
104	Influence of surface texture on orange peel in aluminum. Journal of Materials Processing Technology, 1998, 80-81, 315-319.	3.1	46
105	Recrystallization and grain growth of cold-drawn gold bonding wire. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 1113-1125.	1.1	46
106	A geometric approach to modeling microstructurally small fatigue crack formation: III. Development of a semi-empirical model for nucleation. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 035008.	0.8	46
107	Simulation of plastic deformation in Ti-5553 alloy using a self-consistent viscoplastic model. International Journal of Plasticity, 2017, 94, 57-73.	4.1	46
108	Grain Boundary Character Distribution of Nanocrystalline Cu Thin Films Using Stereological Analysis of Transmission Electron Microscope Orientation Maps. Microscopy and Microanalysis, 2013, 19, 111-119.	0.2	43

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109	Thermo-mechanical factors influencing annealing twin development in nickel during recrystallization. Journal of Materials Science, 2015, 50, 5191-5203.	1.7	43
110	Microstructural effects on damage evolution in shocked copper polycrystals. Acta Materialia, 2016, 116, 270-280.	3.8	43
111	Quantifying primary recrystallization from EBSD maps of partially recrystallized states of an IF steel. Materials Characterization, 2021, 171, 110773.	1.9	43
112	Crystallographic texture in pulsed laser deposited hydroxyapatite bioceramic coatings. Acta Materialia, 2007, 55, 131-139.	3.8	42
113	Interfacial orientation and misorientation relationships in nanolamellar Cu/Nb composites using transmission-electron-microscope-based orientation and phase mapping. Acta Materialia, 2014, 64, 333-344.	3.8	42
114	Textural and microstructural gradient effects on the mechanical behavior of a tantalum plate. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1994, 25, 1025-1031.	1.1	41
115	Grain boundary mobility â€“ a brief review. International Journal of Materials Research, 2004, 95, 226-229.	0.8	40
116	Quantitative Measurement of the Development of Recrystallization Texture in OFE Copper. Textures and Microstructures, 1991, 14, 635-640.	0.2	39
117	A method of measuring stored energy macroscopically using statistically stored dislocations in commercial purity aluminum. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 19-25.	1.1	39
118	Investigation of recrystallization and grain growth of copper and gold bonding wires. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 3085-3097.	1.1	39
119	A multi-scale, multi-physics modeling framework to predict spatial variation of properties in additive-manufactured metals. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 025009.	0.8	39
120	Location specific solidification microstructure control in electron beam melting of Ti-6Al-4V. Additive Manufacturing, 2018, 19, 160-166.	1.7	38
121	Parsing abnormal grain growth. Acta Materialia, 2016, 103, 681-687.	3.8	37
122	Computer simulation of microstructure development in powder-bed additive manufacturing with crystallographic texture. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 055019.	0.8	37
123	Misorientation texture development during grain growth. Part II: Theory. Acta Materialia, 2010, 58, 14-19.	3.8	36
124	Fiveâ€Parameter Grain Boundary Analysis by 3D EBSD of an Ultra Fine Grained CuZr Alloy Processed by Equal Channel Angular Pressing. Advanced Engineering Materials, 2011, 13, 237-244.	1.6	36
125	Extreme value analysis of tail departure from log-normality in experimental and simulated grain size distributions. Acta Materialia, 2013, 61, 5595-5604.	3.8	36
126	Thermally-activated constitutive model including dislocation interactions, aging and recovery for strain path dependence of solid solution strengthened alloys: Application to AA5754-O. International Journal of Plasticity, 2015, 75, 226-243.	4.1	36

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127	Austenite-ferrite interface crystallography dependence of sigma phase precipitation using the five-parameter characterization approach. Materials Letters, 2017, 196, 264-268.	1.3	36
128	Simulation of residual stress and elastic energy density in thermal barrier coatings using fast Fourier transforms. Acta Materialia, 2015, 96, 212-228.	3.8	34
129	Implementation and verification of a microstructure-based capability for modeling microcrack nucleation in LSHR at room temperature. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 035006.	0.8	32
130	Crystallographic texture change during grain growth. Jom, 2004, 56, 63-68.	0.9	31
131	Modeling texture evolution during recrystallization in aluminum. Modelling and Simulation in Materials Science and Engineering, 2009, 17, 015005.	0.8	31
132	Tail Departure of Log-Normal Grain Size Distributions in Synthetic Three-Dimensional Microstructures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2810-2822.	1.1	31
133	Comparison of grain size distributions in a Ni-based superalloy in three and two dimensions using the Saltykov method. Scripta Materialia, 2012, 66, 554-557.	2.6	31
134	The interplay between vapour, liquid, and solid phases in laser powder bed fusion. Nature Communications, 2022, 13, .	5.8	30
135	Grain boundary mobility under a stored-energy driving force: a comparison to curvature-driven boundary migration. International Journal of Materials Research, 2005, 96, 1166-1170.	0.8	29
136	The effects of applied magnetic fields on the Î±/Î³ phase boundary in the Feâ€“Si system. Journal Physics D: Applied Physics, 2006, 39, 2890-2896.	1.3	29
137	Three-dimensional finite element analysis using crystal plasticity for a parameter study of microstructurally small fatigue crack growth in a AA7075 aluminum alloy. International Journal of Fatigue, 2009, 31, 651-658.	2.8	29
138	Crystal plasticity analysis of constitutive behavior of 5754 aluminum sheet deformed along bi-linear strain paths. International Journal of Solids and Structures, 2012, 49, 3507-3516.	1.3	29
139	2D finite element modeling of misorientation dependent anisotropic grain growth in polycrystalline materials: Level set versus multi-phase-field method. Computational Materials Science, 2015, 104, 108-123.	1.4	29
140	Orientation gradients in relation to grain boundaries at varying strain level and spatial resolution. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 348-356.	2.6	29
141	Evolution of the Annealing Twin Density during Î³-Supersolvus Grain Growth in the Nickel-Based Superalloy Inconelâ„¢ 718. Metals, 2016, 6, 5.	1.0	29
142	Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 155, 101-107.	2.6	28
143	Formation of mesoscale roughening in 6022-T4 Al sheets deformed in plane-strain tension. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 513-524.	1.1	28
144	The Monte Carlo Method. , 2005, , 77-114.		28

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145	Monte Carlo simulation of elongated recrystallized grains in steels. Computational Materials Science, 2005, 34, 264-273.	1.4	28
146	Three-dimensional simulation of isotropic coarsening in liquid phase sintering I: A model. Acta Materialia, 2007, 55, 615-626.	3.8	28
147	Automated serial sectioning methods for rapid collection of 3-D microstructure data. Jom, 2011, 63, 25-29.	0.9	28
148	Mesoscopic coupled modeling of texture formation during recrystallization considering stored energy decomposition. Computational Materials Science, 2017, 129, 55-65.	1.4	28
149	Mesoscale characterization of local property distributions in heterogeneous electrodes. Journal of Power Sources, 2018, 386, 1-9.	4.0	28
150	Post-processing to Modify the Î± Phase Micro-Texture and Î² Phase Grain Morphology in Ti-6Al-4V Fabricated by Powder Bed Electron Beam Melting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3429-3439.	1.1	28
151	An Investigation of Process Parameter Modifications on Additively Manufactured Inconel 718 Parts. Journal of Materials Engineering and Performance, 2019, 28, 620-626.	1.2	28
152	High speed synchrotron X-ray diffraction experiments resolve microstructure and phase transformation in laser processed Ti-6Al-4V. Materials Research Letters, 2021, 9, 429-436.	4.1	27
153	popLA - An Integrated Software System for Texture Analysis. Textures and Microstructures, 1991, 14, 1203-1208.	0.2	26
154	Combined out-of-plane and in-plane texture control in thin films using ion beam assisted deposition. Journal of Materials Research, 2001, 16, 210-216.	1.2	26
155	Site-specific atomic scale analysis of solute segregation to a coincidence site lattice grain boundary. Ultramicroscopy, 2010, 110, 278-284.	0.8	26
156	Strain-Induced Selective Growth in 1.5% Temper-Rolled Feâˆ¼1%Si. Microscopy and Microanalysis, 2011, 17, 362-367.	0.2	26
157	A calibrated Monte Carlo approach to quantify the impacts of misorientation and different driving forces on texture development. Acta Materialia, 2012, 60, 1201-1210.	3.8	26
158	Effect of microstructure on the elasto-viscoplastic deformation of dual phase titanium structures. Computational Mechanics, 2018, 61, 55-70.	2.2	26
159	Approach to saturation in textured soft magnetic materials. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 2595-2603.	1.1	25
160	An Overview of Accomplishments and Challenges in Recrystallization and Grain Growth. Materials Science Forum, 2007, 558-559, 33-42.	0.3	24
161	A theoretical prediction of twin variants in extruded AZ31 Mg alloys using the microstructure based crystal plasticity finite element method. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 190-201.	2.6	24
162	Roles of texture and latent hardening on plastic anisotropy of face-centered-cubic materials during multi-axial loading. Journal of the Mechanics and Physics of Solids, 2017, 99, 50-69.	2.3	24

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163	Physics-based and phenomenological plasticity models for thermomechanical simulation in laser powder bed fusion additive manufacturing: A comprehensive numerical comparison. Materials and Design, 2021, 204, 109658.	3.3	24
164	Texture of Cu and dilute binary Cu-alloy films: impact of annealing and solute content. Materials Science in Semiconductor Processing, 2003, 6, 175-184.	1.9	23
165	Microtexture development during equibiaxial tensile deformation in monolithic and dual phase steels. Acta Materialia, 2011, 59, 5462-5471.	3.8	23
166	Modeling the recrystallized grain size in single phase materials. Acta Materialia, 2011, 59, 3872-3882.	3.8	23
167	Three Dimensional Microstructures: Statistical Analysis of Second Phase Particles in AA7075-T651. Materials Science Forum, 2006, 519-521, 1-10.	0.3	22
168	Crystal Plasticity Finite Element Method Simulations for a Polycrystalline Ni Micro-Specimen Deformed in Tension. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 6352-6359.	1.1	22
169	Investigation of the aging behavior and orientation relationships in Feâ€“31.4Mnâ€“11.4Alâ€“0.89C low-density steel. Journal of Alloys and Compounds, 2017, 723, 146-156.	2.8	22
170	Generation of statistically representative synthetic three-dimensional microstructures. Scripta Materialia, 2018, 146, 128-132.	2.6	22
171	In situ/operandosynchrotron x-ray studies of metal additive manufacturing. MRS Bulletin, 2020, 45, 927-933.	1.7	22
172	On the validity of the von Neumannâ€“Mullins relation. Scripta Materialia, 2004, 51, 611-616.	2.6	21
173	First-principles calculation of lattice stability of C15â€“M2R and their hypothetical C15 variants (M=Al,) Tj ETQq1 1 0.784314 rgBT /O 341-348.	0.7	21
174	Investigation on cold-drawn gold bonding wire with serial and reverse-direction drawing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 432, 202-215.	2.6	21
175	Accelerated Potts model for grain growth â€“ Application to an IF steel. Computational Materials Science, 2013, 68, 189-197.	1.4	21
176	Fast Fourier transform discrete dislocation dynamics. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 085005.	0.8	21
177	Grain-boundary character distribution and correlations with electrical and optoelectronic properties of CuInSe2 thin films. Acta Materialia, 2016, 118, 244-252.	3.8	21
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