Anthony D Rollett

List of Publications by Citations

375 papers	12,962 citations	59 h-index	102 g-index
384 ext. papers	14,697 ext. citations	4.4 avg, IF	6.63 L-index

#	Paper	IF	Citations
375	Current issues in recrystallization: a review. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1997**, 238, 219-274	5.3	1602
374	Keyhole threshold and morphology in laser melting revealed by ultrahigh-speed x-ray imaging. *Science*, **2019**, 363, 849-852	33.3	348
373	Simulation and theory of abnormal grain growth—anisotropic grain boundary energies and mobilities. *Acta Metallurgica*, **1989**, 37, 1227-1240		296
372	Real-time monitoring of laser powder bed fusion process using high-speed X-ray imaging and diffraction. *Scientific Reports*, **2017**, 7, 3602	4.9	278
371	Operational texture analysis. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1991**, 132, 1-11	5.3	270
370	Design of radiation tolerant materials via interface engineering. *Advanced Materials*, **2013**, 25, 6975-9	24	248
369	Orientation image-based micromechanical modelling of subgrain texture evolution in polycrystalline copper. *Acta Materialia*, **2008**, 56, 3914-3926	8.4	181
368	Epitaxial CeO2 films as buffer layers for high-temperature superconducting thin films. *Applied Physics Letters*, **1991**, 58, 2165-2167	3.4	180
367	The distribution of internal interfaces in polycrystals. *International Journal of Materials Research*, **2004**, 95, 197-214		178
366	Viewpoint: experimental recovery of geometrically necessary dislocation density in polycrystals. *Scripta Materialia*, **2003**, 48, 141-145	5.6	170
365	Distribution of grain boundaries in aluminum as a function of five macroscopic parameters. *Acta Materialia*, **2004**, 52, 3649-3655	8.4	167
364	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	2.1	159
363	On abnormal subgrain growth and the origin of recrystallization nuclei. *Acta Materialia*, **2003**, 51, 2701-27	8.4	156
362	Computer simulation of recrystallization in non-uniformly deformed metals. *Acta Metallurgica*, **1989**, 37, 627-639		145
361	Computer simulation of recrystallization—I. Heterogeneous nucleation and growth. *Acta Metallurgica*, **1988**, 36, 2115-2128		144
360	Grain boundary energies in body-centered cubic metals. *Acta Materialia*, **2015**, 88, 346-354	8.4	141
359	3D reconstruction of microstructure in a commercial purity aluminum. *Scripta Materialia*, **2006**, 55, 75-80	5.6	136

358	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	5.3	127
357	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	7.4	121
356	Three-Dimensional Characterization of Microstructure by Electron Back-Scatter Diffraction. *Annual Review of Materials Research*, **2007**, 37, 627-658	12.8	121
355	Overview of modeling and simulation of recrystallization. *Progress in Materials Science*, **1997**, 42, 79-99	42.2	116
354	Statistically representative three-dimensional microstructures based on orthogonal observation sections. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 1969-1979	2.3	114
353	A hybrid model for mesoscopic simulation of recrystallization. *Computational Materials Science*, **2001**, 21, 69-78	3.2	112
352	Microstructural simulation of dynamic recrystallization. *Acta Metallurgica Et Materialia*, **1992**, 40, 43-55		110
351	Polycrystal Plasticity: Comparison Between Grain - Scale Observations of Deformation and Simulations. *Annual Review of Condensed Matter Physics*, **2014**, 5, 317-346	19.7	106
350	Critical instability at moving keyhole tip generates porosity in laser melting. *Science*, **2020**, 370, 1080-1086	39.3	106
349	Defects-dictated tensile properties of selective laser melted Ti-6Al-4V. *Materials and Design*, **2018**, 158, 113-126	8.1	105
348	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	2.1	98
347	Ultrafast X-ray imaging of laser-metal additive manufacturing processes. *Journal of Synchrotron Radiation*, **2018**, 25, 1467-1477	2.4	97
346	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	9.7	96
345	The heterophase interface character distribution of physical vapor-deposited and accumulative roll-bonded Cu–Nb multilayer composites. *Acta Materialia*, **2012**, 60, 1747-1761	8.4	93
344	On the volume fraction dependence of particle limited grain growth. *Scripta Metallurgica*, **1987**, 21, 675-679		92
343	Cube texture in hot-rolled aluminum alloy 1050 (AA1050)—nucleation and growth behavior. *Acta Materialia*, **2008**, 56, 3098-3108	8.4	91
342	Comparing calculated and measured grain boundary energies in nickel. *Acta Materialia*, **2010**, 58, 5063-5069	8.4	88
341	Transition between low and high angle grain boundaries. *Acta Materialia*, **2005**, 53, 2901-2907	8.4	88

340	On the growth of abnormal grains. *Scripta Materialia*, **1997**, 36, 975-980	5.6	84
339	Large-strain Bauschinger effects in fcc metals and alloys. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1990**, 21, 3201-3213		83
338	Deriving grain boundary character distributions and relative grain boundary energies from three-dimensional EBSD data. *Materials Science and Technology*, **2010**, 26, 661-669	1.5	78
337	Sparse data structure and algorithm for the phase field method. *Modelling and Simulation in Materials Science and Engineering*, **2006**, 14, 1189-1195	2	78
336	Plastic deformation in Al-alloy matrix-alumina particulate composites. *Scripta Metallurgica Et Materialia*, **1991**, 25, 27-32		78
335	Towards an integrated materials characterization toolbox. *Journal of Materials Research*, **2011**, 26, 1341-1383	2.3	75
334	Misorientations induced by deformation twinning in titanium. *Journal of Applied Crystallography*, **2010**, 43, 596-602	3.8	75
333	Determination of a mean orientation in electron backscatter diffraction measurements. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 3427-3438	2.3	73
332	Modeling the viscoplastic micromechanical response of two-phase materials using Fast Fourier Transforms. *International Journal of Plasticity*, **2011**, 27, 707-727	7.6	72
331	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	42.2	71
330	Computer Vision and Machine Learning for Autonomous Characterization of AM Powder Feedstocks. *Jom*, **2017**, 69, 456-465	2.1	68
329	Computer simulation of recrystallization□I. Influence of a dispersion of fine particles. *Acta Metallurgica Et Materialia*, **1992**, 40, 3475-3495		68
328	In-situ observation of bulk 3D grain evolution during plastic deformation in polycrystalline Cu. *International Journal of Plasticity*, **2015**, 67, 217-234	7.6	67
327	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	12	67
326	Three-dimensional plastic response in polycrystalline coppervianear-field high-energy X-ray diffraction microscopy. *Journal of Applied Crystallography*, **2012**, 45, 1098-1108	3.8	67
325	Effect of Laser-Matter Interaction on Molten Pool Flow and Keyhole Dynamics. *Physical Review Applied*, **2019**, 11,	4.3	65
324	The distribution of intervariant crystallographic planes in a lath martensite using five macroscopic parameters. *Acta Materialia*, **2014**, 63, 86-98	8.4	64
323	On the widths of orientation gradient zones adjacent to grain boundaries. *Scripta Materialia*, **2009**, 61, 273-276	5.6	64

322	Misorientation texture development during grain growth. Part I: Simulation and experiment. *Acta Materialia*, **2009**, 57, 6102-6112	8.4	64
321	Habits of Grains in Dense Polycrystalline Solids. *Journal of the American Ceramic Society*, **2004**, 87, 724-726	3.8	63
320	Length scale effects on recrystallization and texture evolution in Cu layers of a roll-bonded Cu-Nb composite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 520, 189-196	5.3	62
319	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	2	62
318	Fast fourier transform-based modeling for the determination of micromechanical fields in polycrystals. *Jom*, **2011**, 63, 13-18	2.1	61
317	Stress hot spots in viscoplastic deformation of polycrystals. *Modelling and Simulation in Materials Science and Engineering*, **2010**, 18, 074005	2	60
316	Crystallographic texture evolution in 1008 steel sheet during multi-axial tensile strain paths. *Integrating Materials and Manufacturing Innovation*, **2014**, 3, 1-19	2.9	59
315	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	8.4	59
314	Abnormal grain growth in three dimensions. *Scripta Metallurgica Et Materialia*, **1990**, 24, 661-665		59
313	Observation of annealing twin nucleation at triple lines in nickel during grain growth. *Acta Materialia*, **2015**, 99, 63-68	8.4	58
312	Tensile twin nucleation events coupled to neighboring slip observed in three dimensions. *Acta Materialia*, **2014**, 76, 213-220	8.4	58
311	Effect of anisotropic grain boundary properties on grain boundary plane distributions during grain growth. *Scripta Materialia*, **2005**, 53, 351-355	5.6	58
310	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	7.6	57
309	Grain boundary planes: New dimensions in the grain boundary character distribution. *Scripta Materialia*, **2006**, 54, 1005-1009	5.6	57
308	Measuring relative grain boundary energies and mobilities in an aluminum foil from triple junction geometry. *Scripta Materialia*, **2001**, 44, 2735-2740	5.6	55
307	Lattice stability of aluminum-rare earth binary systems: A first-principles approach. *Physical Review B*, **2007**, 75,	3.3	54
306	Effect of magnetic field applied during secondary annealing on texture and grain size of silicon steel. *Scripta Materialia*, **2003**, 48, 1343-1347	5.6	54
305	Validating computed grain boundary energies in fcc metals using the grain boundary character distribution. *Acta Materialia*, **2011**, 59, 5250-5256	8.4	53

304	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	3.2	52
303	Mobility of low-angle grain boundaries in pure metals. *Philosophical Magazine*, **2010**, 90, 3107-3128	1.6	52
302	Grain boundary energy and grain growth in Al films: Comparison of experiments and simulations. *Scripta Materialia*, **2006**, 54, 1059-1063	5.6	51
301	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	2.3	51
300	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		50
299	Extracting Grain Boundary and Surface Energy from Measurement of Triple Junction Geometry. *Journal of Materials Science*, **1999**, 7, 321-337		48
298	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	5.6	46
297	Bridging simulations and experiments in microstructure evolution. *Physical Review Letters*, **2003**, 90, 016106	7.4	46
296	Real time observation of binder jetting printing process using high-speed X-ray imaging. *Scientific Reports*, **2019**, 9, 2499	4.9	46
295	Formation of Annealing Twins during Recrystallization and Grain Growth in 304L Austenitic Stainless Steel. *Materials Science Forum*, **2013**, 753, 113-116	0.4	45
294	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	5.3	44
293	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	2.3	44
292	The first-principles design of ductile refractory alloys. *Jom*, **2008**, 60, 61-65	2.1	44
291	Abnormal grain growth of Goss grains in Fe□% Si steel driven by sub-boundary-enhanced solid-state wetting: Analysis by Monte Carlo simulation. *Acta Materialia*, **2010**, 58, 4414-4423	8.4	43
290	Toughness of dense MoSi2 and composites produced by low pressure plasma deposition. *Scripta Metallurgica Et Materialia*, **1992**, 26, 207-212		43
289	Consistent representations of and conversions between 3D rotations. *Modelling and Simulation in Materials Science and Engineering*, **2015**, 23, 083501	2	41
288	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	2	40
287	Extracting the relative grain boundary free energy and mobility functions from the geometry of microstructures. *Scripta Materialia*, **1998**, 38, 531-536	5.6	40

286	Crystallographic texture in pulsed laser deposited hydroxyapatite bioceramic coatings. *Acta Materialia*, **2007**, 55, 131-139	8.4	40
285	Recrystallization and Texture Development in Hot Rolled 1050 Aluminum. *Materials Science Forum*, **2004**, 467-470, 357-362	0.4	40
284	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	2.3	39
283	Back calculation of parent austenite orientation using a clustering approach. *Journal of Applied Crystallography*, **2013**, 46, 210-215	3.8	38
282	Recrystallization and grain growth of cold-drawn gold bonding wire. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2003**, 34, 1113-1125	2.3	38
281	Strength of nanoscale metallic multilayers. *Scripta Materialia*, **2018**, 145, 132-136	5.6	37
280	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	8.4	37
279	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	2.3	37
278	Grain boundary character distribution of nanocrystalline Cu thin films using stereological analysis of transmission electron microscope orientation maps. *Microscopy and Microanalysis*, **2013**, 19, 111-9	0.5	36
277	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	8.4	36
276	Influence of surface texture on orange peel in aluminum. *Journal of Materials Processing Technology* , **1998**, 80-81, 315-319	5.3	36
275	Validation of micro-mechanical FFT-based simulations using High Energy Diffraction Microscopy on Ti-7Al. *Acta Materialia*, **2018**, 154, 273-283	8.4	36
274	Simulation of plastic deformation in Ti-5553 alloy using a self-consistent viscoplastic model. *International Journal of Plasticity*, **2017**, 94, 57-73	7.6	35
273	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	5	35
272	Quantitative Measurement of the Development of Recrystallization Texture in OFE Copper. *Textures and Microstructures*, **1991**, 14, 635-640		35
271	Microstructural effects on damage evolution in shocked copper polycrystals. *Acta Materialia*, **2016**, 116, 270-280	8.4	35
270	Characterization of metal additive manufacturing surfaces using synchrotron X-ray CT and micromechanical modeling. *Computational Mechanics*, **2018**, 61, 575-580	4	34
269	Thermo-mechanical factors influencing annealing twin development in nickel during recrystallization. *Journal of Materials Science*, **2015**, 50, 5191-5203	4.3	34

268	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	2.3	33
267	On the crystallographic characteristics of nanobainitic steel. *Acta Materialia*, **2017**, 127, 426-437	8.4	32
266	Five-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	3.5	31
265	Misorientation texture development during grain growth. Part II: Theory. *Acta Materialia*, **2010**, 58, 14-19	8.4	31
264	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	2	30
263	Location specific solidification microstructure control in electron beam melting of Ti-6Al-4V. *Additive Manufacturing*, **2018**, 19, 160-166	6.1	30
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261	Grain boundary mobility a brief review. *International Journal of Materials Research*, **2004**, 95, 226-229		30
260	Extreme value analysis of tail departure from log-normality in experimental and simulated grain size distributions. *Acta Materialia*, **2013**, 61, 5595-5604	8.4	29
259	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	2.3	29
258	Crystallographic texture change during grain growth. *Jom*, **2004**, 56, 63-68	2.1	29
257	Simulation of residual stress and elastic energy density in thermal barrier coatings using fast Fourier transforms. *Acta Materialia*, **2015**, 96, 212-228	8.4	28
256	High-Energy X-Ray Diffraction Microscopy in Materials Science. *Annual Review of Materials Research* , **2020**, 50, 395-436	12.8	28
255	Modeling texture evolution during recrystallization in aluminum. *Modelling and Simulation in Materials Science and Engineering*, **2009**, 17, 015005	2	27
254	Austenite-ferrite interface crystallography dependence of sigma phase precipitation using the five-parameter characterization approach. *Materials Letters*, **2017**, 196, 264-268	3.3	26
253	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		26
252	Spectral methods for full-field micromechanical modelling of polycrystalline materials. *Computational Materials Science*, **2020**, 173, 109336	3.2	26
251	Defect structure process maps for laser powder bed fusion additive manufacturing. *Additive Manufacturing*, **2020**, 36, 101552	6.1	26

250	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,	7.6	25
249	Parsing abnormal grain growth. *Acta Materialia*, **2016**, 103, 681-687	8.4	25
248	Automated serial sectioning methods for rapid collection of 3-D microstructure data. *Jom*, **2011**, 63, 25-29	2.1	25
247	Site-specific atomic scale analysis of solute segregation to a coincidence site lattice grain boundary. *Ultramicroscopy*, **2010**, 110, 278-84	3.1	25
246	Monte Carlo simulation of elongated recrystallized grains in steels. *Computational Materials Science* , **2005**, 34, 264-273	3.2	25
245	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	2.5	25
244	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	5.3	25
243	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	5.6	24
242	Strain-induced selective growth in 1.5% temper-rolled Fe;1%Si. *Microscopy and Microanalysis*, **2011**, 17, 362-7	0.5	24
241	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	2.3	24
240	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	3.2	23
239	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	5.3	23
238	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	5	23
237	popLA - An Integrated Software System for Texture Analysis. *Textures and Microstructures*, **1991**, 14, 1203-1208		23
236	A calibrated Monte Carlo approach to quantify the impacts of misorientation and different driving forces on texture development. *Acta Materialia*, **2012**, 60, 1201-1210	8.4	22
235	The effects of applied magnetic fields on the γ/α phase boundary in the Fe–Si system. *Journal Physics D: Applied Physics*, **2006**, 39, 2890-2896	3	22
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231	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	3.2	21
230	Accelerated Potts model for grain growth Application to an IF steel. *Computational Materials Science*, **2013**, 68, 189-197	3.2	20
229	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, 50-50	5	20
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227	Microtexture development during equibiaxial tensile deformation in monolithic and dual phase steels. *Acta Materialia*, **2011**, 59, 5462-5471	8.4	20
226	Three-dimensional simulation of isotropic coarsening in liquid phase sintering I: A model. *Acta Materialia*, **2007**, 55, 615-626	8.4	20
225	An Overview of Accomplishments and Challenges in Recrystallization and Grain Growth. *Materials Science Forum*, **2007**, 558-559, 33-42	0.4	20
224	Approach to saturation in textured soft magnetic materials. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2001**, 32, 2595-2603	2.3	20
223	Grain-boundary character distribution and correlations with electrical and optoelectronic properties of CuInSe2 thin films. *Acta Materialia*, **2016**, 118, 244-252	8.4	20
222	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	2.3	19
221	Three-Dimensional Microstructure Reconstruction Using FIB-OIM. *Materials Science Forum*, **2007**, 558-559, 915-920	0.4	19
220	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	5.3	19
219	Texture and resistivity of dilute binary Cu(Al), Cu(In), Cu(Ti), Cu(Nb), Cu(Ir), and Cu(W) alloy thin films. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2002**, 20, 2314		19
218	Effect of microstructure on the elasto-viscoplastic deformation of dual phase titanium structures. *Computational Mechanics*, **2018**, 61, 55-70	4	19
217	Calculation of grain boundary normals directly from 3D microstructure images. *Modelling and Simulation in Materials Science and Engineering*, **2015**, 23, 035005	2	18
216	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	5.3	18
215	Mesoscale characterization of local property distributions in heterogeneous electrodes. *Journal of Power Sources*, **2018**, 386, 1-9	8.9	18

214	Understanding materials microstructure and behavior at the mesoscale. *MRS Bulletin*, **2015**, 40, 951-960	3.2	18
213	Three Dimensional Microstructures: Statistical Analysis of Second Phase Particles in AA7075-T651. *Materials Science Forum*, **2006**, 519-521, 1-10	0.4	18
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210	The effect of deformation twinning on stress localization in a three dimensional TWIP steel microstructure. *Modelling and Simulation in Materials Science and Engineering*, **2015**, 23, 045010	2	17
209	In-Situ Quantification of Solute Effects on Grain Boundary Mobility and Character in Aluminum Alloys during Recrystallization. *Materials Science Forum*, **2004**, 467-470, 997-1002	0.4	17
208	The Monte Carlo Method **2005**, 77-114		17
207	Studies on the Accuracy of Electron Backscatter Diffraction Measurements **2000**, 65-74		17
206	Fast Fourier transform discrete dislocation dynamics. *Modelling and Simulation in Materials Science and Engineering*, **2016**, 24, 085005	2	17
205	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	2	17
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202	Microstructure Generation via Generative Adversarial Network for Heterogeneous, Topologically Complex 3D Materials. *Jom*, **2021**, 73, 90-102	2.1	16
201	Quantifying primary recrystallization from EBSD maps of partially recrystallized states of an IF steel. *Materials Characterization*, **2021**, 171, 110773	3.9	16
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198	Linking Experimental Characterization and Computational Modeling of Grain Growth in Al-Foil. *Journal of Materials Science*, **2002**, 10, 137-141		15
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