

Yubin Zhang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

94
papers

1,044
citations

19
h-index

28
g-index

100
ext. papers

1,325
ext. citations

3.7
avg, IF

4.83
L-index

#	Paper	IF	Citations
94	Evolution of microstructure and mechanical properties during annealing of heavily rolled AlCoCrFeNi _{2.1} eutectic high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 833, 142558	5.3	0
93	An experimentally-based molecular dynamics analysis of grain boundary migration during recrystallization in aluminum. <i>Scripta Materialia</i> , 2022 , 211, 114489	5.6	0
92	Effects of dislocation boundary spacings and stored energy on boundary migration during recrystallization: A phase-field analysis. <i>Acta Materialia</i> , 2021 , 221, 117377	8.4	1
91	Residual strain stress in manganese steel railway crossing determined by synchrotron and laboratory X-rays. <i>Materials Science and Technology</i> , 2021 , 37, 6-13	1.5	0
90	Enhanced strength in pure Ti via design of alternating coarse- and fine-grain layers. <i>Acta Materialia</i> , 2021 , 206, 116627	8.4	19
89	Cryogenic toughness in a low-cost austenitic steel. <i>Communications Materials</i> , 2021 , 2,	6	7
88	In Situ Synchrotron X-ray Micro-Diffraction Investigation of Elastic Strains in Laminated Ti-Al Composites. <i>Metals</i> , 2021 , 11, 668	2.3	
87	Interface engineering of functionally graded steel-steel composites by laser powder bed fusion. <i>Manufacturing Letters</i> , 2021 , 28, 46-49	4.5	1
86	Improved grain mapping by laboratory X-ray diffraction contrast tomography. <i>IUCrJ</i> , 2021 , 8, 559-573	4.7	2
85	Importance of deformation-induced local orientation distributions for nucleation of recrystallisation. <i>Acta Materialia</i> , 2021 , 210, 116808	8.4	4
84	Deep learning for improving non-destructive grain mapping in 3D. <i>IUCrJ</i> , 2021 , 8, 719-731	4.7	0
83	Recent trends in X-ray-based characterization of nodular cast iron. <i>Material Design and Processing Communications</i> , 2021 , 3, e212	0.9	
82	In-situ synchrotron X-ray micro-diffraction investigation of ultra-low-strain deformation microstructure in laminated Ti-Al composites. <i>Acta Materialia</i> , 2021 , 202, 149-158	8.4	9
81	Influence of geometrical alignment of the deformation microstructure on local migration of grain boundaries during recrystallization: A phase-field study. <i>Scripta Materialia</i> , 2021 , 191, 116-119	5.6	5
80	Particle stimulated nucleation revisited in three dimensions: a laboratory-based multimodal X-ray tomography investigation. <i>Materials Research Letters</i> , 2021 , 9, 65-70	7.4	5
79	Optimizing laboratory X-ray diffraction contrast tomography for grain structure characterization of pure iron. <i>Journal of Applied Crystallography</i> , 2021 , 54, 99-110	3.8	3
78	Microstructure Evolution and Tensile Properties of Cold-Rolled and Annealed Fe-30Mn-0.14C-7Cr-0.26Ni Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 3839-3848	2.3	1

77	Recrystallization boundary migration in the 3D heterogeneous microstructure near a hardness indent. <i>Scripta Materialia</i> , 2021 , 205, 114187	5.6	2
76	Quantification of local dislocation density using 3D synchrotron monochromatic X-ray microdiffraction. <i>Materials Research Letters</i> , 2021 , 9, 182-188	7.4	5
75	Impact of 3D/4D methods on the understanding of recrystallization. <i>Current Opinion in Solid State and Materials Science</i> , 2020 , 24, 100821	12	6
74	Impact of local Si segregation on strain localization in ductile cast iron. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020 , 861, 012038	0.4	
73	Dislocation density in fine grain-size spark-plasma sintered aluminum measured using high brightness synchrotron radiation. <i>Materials Letters</i> , 2020 , 269, 127653	3.3	3
72	Analysis of the correlation between micro-mechanical fields and fatigue crack propagation path in nodular cast iron. <i>Acta Materialia</i> , 2020 , 188, 302-314	8.4	7
71	A flexible and standalone forward simulation model for laboratory X-ray diffraction contrast tomography. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2020 , 76, 652-663	1.7	5
70	Microstructural characterization of eutectic and near-eutectic AlCoCrFeNi high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2020 , 822, 153558	5.7	10
69	Micromechanical impact of solidification regions in ductile iron revealed via a 3D strain partitioning analysis method. <i>Scripta Materialia</i> , 2020 , 178, 463-467	5.6	7
68	Microstructure and strengthening mechanisms of 90W-10Ni-3Fe alloys prepared using laser melting deposition. <i>Journal of Alloys and Compounds</i> , 2020 , 838, 155545	5.7	11
67	Unsupervised Deep Learning for Laboratory-Based Diffraction Contrast Tomography. <i>Integrating Materials and Manufacturing Innovation</i> , 2020 , 9, 315-321	2.9	2
66	Damage evolution around white etching layer during uniaxial loading. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020 , 43, 201-208	3	3
65	Grain boundary mobilities in polycrystals. <i>Acta Materialia</i> , 2020 , 191, 211-220	8.4	25
64	Crack formation within a Hadfield manganese steel crossing nose. <i>Wear</i> , 2019 , 438-439, 203049	3.5	6
63	Microstructure and residual elastic strain at graphite nodules in ductile cast iron analyzed by synchrotron X-ray microdiffraction. <i>Acta Materialia</i> , 2019 , 167, 221-230	8.4	19
62	Impact of micro-scale residual stress on in-situ tensile testing of ductile cast iron: Digital volume correlation vs. model with fully resolved microstructure vs. periodic unit cell. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 125, 714-735	5	14
61	High Resolution Mapping of Orientation and Strain Gradients in Metals by Synchrotron 3D X-ray Laue Microdiffraction. <i>Quantum Beam Science</i> , 2019 , 3, 6	1.6	9
60	Alignment of sample position and rotation during in situ synchrotron X-ray micro-diffraction experiments using a Laue cross-correlation approach. <i>Journal of Applied Crystallography</i> , 2019 , 52, 1119-1127	3.8	1

59	Aging of 3D-printed maraging steel. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 580, 012047	0.4	2
58	Investigation of plastic yielding in near-micrometer grain size aluminum using synchrotron microdiffraction. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 580, 012056	0.4	1
57	Quantification of local boundary migration in 2D/3D. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 580, 012015	0.4	2
56	Thermal stability of laser shock peening processed Ni-based superalloy DZ17G. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 580, 012059	0.4	
55	Quantification of microstructure in a eutectic high entropy alloy AlCoCrFeNi _{2.1} . <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 580, 012039	0.4	4
54	Quantification of local mobilities. <i>Scripta Materialia</i> , 2018 , 146, 286-289	5.6	3
53	3D characterization of partially recrystallized Al using high resolution diffraction contrast tomography. <i>Scripta Materialia</i> , 2018 , 157, 72-75	5.6	10
52	Importance of Non-uniform Boundary Migration for Recrystallization Kinetics. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 5246-5258	2.3	13
51	Three-dimensional grain growth in pure iron. Part I. statistics on the grain level. <i>Acta Materialia</i> , 2018 , 156, 76-85	8.4	32
50	In-situ investigation of the evolution of annealing twins in high purity aluminium. <i>Scripta Materialia</i> , 2018 , 153, 68-72	5.6	18
49	Direct observation of nucleation in the bulk of an opaque sample. <i>Scientific Reports</i> , 2017 , 7, 42508	4.9	19
48	A method to characterize the roughness of 2-D line features: recrystallization boundaries. <i>Journal of Microscopy</i> , 2017 , 265, 313-321	1.9	1
47	The influence of multiscale heterogeneity on recrystallization in nickel processed by accumulative roll bonding. <i>Journal of Materials Science</i> , 2017 , 52, 2730-2745	4.3	19
46	Stored energy and recrystallized microstructures in nickel processed by accumulative roll bonding to different strains. <i>Materials Characterization</i> , 2017 , 129, 323-328	3.9	7
45	Ultra-low-angle boundary networks within recrystallizing grains. <i>Scripta Materialia</i> , 2017 , 139, 87-91	5.6	25
44	Quantification of deformation microstructure at ultra-low tensile strain in pure Al prepared by spark plasma sintering. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 219, 012050	0.4	1
43	Boundary migration in a 3D deformed microstructure inside an opaque sample. <i>Scientific Reports</i> , 2017 , 7, 4423	4.9	16
42	An electron microscopy study of microstructural evolution during in-situ annealing of heavily deformed nickel. <i>Materials Letters</i> , 2017 , 186, 102-104	3.3	6

41	Roughness of grain boundaries in partly recrystallized aluminum. <i>Scripta Materialia</i> , 2017 , 126, 45-49	5.6	4
40	Recrystallization texture in nickel heavily deformed by accumulative roll bonding. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 219, 012034	0.4	2
39	4D Study of Grain Growth in Armco Iron Using Laboratory X-ray Diffraction Contrast Tomography. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 219, 012039	0.4	8
38	Synchrotron measurements of local microstructure and residual strains in ductile cast iron. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 219, 012054	0.4	2
37	Effects of spark plasma sintering conditions on the anisotropic thermoelectric properties of bismuth antimony telluride. <i>RSC Advances</i> , 2016 , 6, 59565-59573	3.7	30
36	Laboratory diffraction contrast tomography - applications and future directions 2016 , 37-38		
35	Microstructural Analysis of Orientation-Dependent Recovery and Recrystallization in a Modified 9Cr-1Mo Steel Deformed by Compression at a High Strain Rate. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 4682-4693	2.3	16
34	Three-dimensional local residual stress and orientation gradients near graphite nodules in ductile cast iron. <i>Acta Materialia</i> , 2016 , 121, 173-180	8.4	26
33	Crystallographic Analysis of Nucleation at Hardness Indentations in High-Purity Aluminum. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 5863-5870	2.3	6
32	Supercube grains leading to a strong cube texture and a broad grain size distribution after recrystallization. <i>Philosophical Magazine</i> , 2015 , 95, 2427-2449	1.6	10
31	Boundary migration during recrystallization: experimental observations. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 89, 012015	0.4	3
30	Effects of structural heterogeneity of nanostructured copper on the evolution of the sizes of recrystallized grains during annealing. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 89, 012033	0.4	0
29	Dark field X-ray microscopy for studies of recrystallization. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 89, 012016	0.4	2
28	Orientations of recrystallization nuclei developed in columnar-grained Ni at triple junctions. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 82, 012044	0.4	
27	Nucleation at hardness indentations in cold rolled Al. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 89, 012054	0.4	
26	Boundary Fractal Analysis of Two Cube-oriented Grains in Partly Recrystallized Copper. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 82, 012006	0.4	4
25	Local strain distributions in partially recrystallized copper determined by in situ tensile investigation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 82, 012103	0.4	1
24	A phase-field simulation study of irregular grain boundary migration during recrystallization. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 89, 012037	0.4	8

23	Characterization of boundary roughness of two cube grains in partly recrystallized copper. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 89, 012044	0.4	1
22	Structural coarsening during annealing of an aluminum plate heavily deformed using ECAE. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 89, 012035	0.4	1
21	In-Situ Investigation of Local Boundary Migration During Recrystallization. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 2899-2905	2.3	21
20	A method to correct coordinate distortion in EBSD maps. <i>Materials Characterization</i> , 2014 , 96, 158-165	3.9	24
19	Oriented growth during recrystallization revisited in three dimensions. <i>Scripta Materialia</i> , 2014 , 72-73, 9-12	5.6	37
18	Effects of heterogeneity on recrystallization kinetics of nanocrystalline copper prepared by dynamic plastic deformation. <i>Acta Materialia</i> , 2014 , 72, 252-261	8.4	38
17	Direct Observation of Grain Boundary Migration during Recrystallization within the Bulk of a Moderately Deformed Aluminium Single Crystal. <i>Materials Transactions</i> , 2014 , 55, 128-136	1.3	20
16	Analysis of through-thickness heterogeneities of microstructure and texture in nickel after accumulative roll bonding. <i>Journal of Materials Science</i> , 2014 , 49, 287-293	4.3	18
15	Phase-field simulation study of the migration of recrystallization boundaries. <i>Physical Review B</i> , 2013 , 88,	3.3	48
14	Observations of orientation dependence of surface morphology in tungsten implanted by low energy and high flux D plasma. <i>Journal of Nuclear Materials</i> , 2013 , 443, 452-457	3.3	46
13	Microstructure and mechanical properties of nickel processed by accumulative roll bonding. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 576, 160-166	5.3	31
12	Annealing behaviour of a nanostructured Cu ₄₅ at.%Ni alloy. <i>Journal of Materials Science</i> , 2013 , 48, 4183-4190	4.3	34
11	Importance of Local Structural Variations on Recrystallization. <i>Materials Science Forum</i> , 2013 , 753, 37-41	0.4	11
10	Kinetics of Thermal Grooving during Low Temperature Recrystallization of Pure Aluminum. <i>Materials Science Forum</i> , 2013 , 753, 117-120	0.4	5
9	Microstructural characterization of nickel subjected to dynamic plastic deformation. <i>Scripta Materialia</i> , 2012 , 66, 335-338	5.6	23
8	Three-dimensional investigation of recrystallization nucleation in a particle-containing Al alloy. <i>Scripta Materialia</i> , 2012 , 67, 320-323	5.6	40
7	Extension twin variant selection during uniaxial compression of a magnesium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 550, 138-145	5.3	53
6	3D Characterization of Recrystallization Boundaries 2012 , 31-36		1

- 5 Advancement in Characterization and Modeling of Boundary Migration during Recrystallization
2011, 19-26
- 4 Local boundary migration during recrystallization in pure aluminium. *Scripta Materialia*, **2011**, 64, 331-334.6 39
- 3 Investigation of boundary migration during grain growth in fully recrystallised high purity nickel.
Materials Science and Technology, **2010**, 26, 197-202 1.5 6
- 2 Analysis of the growth of individual grains during recrystallization in pure nickel. *Acta Materialia*,
2009, 57, 2631-2639 8.4 50
- 1 3D Characterization of Recrystallization Boundaries31-36