Jun Jiang

List of Publications by Year in Descending Order

83 papers	1,750 citations	25 h-index	40 g-index
85 ext. papers	2,278 ext. citations	4.7 avg, IF	5.4 L-index

#	Paper	IF	Citations
83	Strain rate effects on mechanical behavior and microstructure evolution with the sequential strains of TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 835, 142673	5.3	5
82	Develop a new strain rate sensitive solid-state pressure bonding model. *Materials and Design*, **2022**, 215, 110436	8.1	0
81	Predicting virtual creep crack growth in a simulated titanium aluminide alloy microstructure containing voids, precipitates, and grain/grain boundary distortions. *Engineering Fracture Mechanics* , **2022**, 262, 108171	4.2	1
80	Revealing geometrically necessary dislocation density from electron backscatter patterns via multi-modal deep learning.. *Ultramicroscopy*, **2022**, 237, 113519	3.1	
79	Microstructure and Texture Evolution during Severe Plastic Deformation at Cryogenic Temperatures in an Al-0.1Mg Alloy. *Metals*, **2021**, 11, 1822	2.3	
78	The study of hot deformation on laser cladding remanufactured 316L stainless steel. *Materials and Design*, **2021**, 212, 110255	8.1	1
77	The Low-Cycle Fatigue Behavior, Failure Mechanism and Prediction of SLM Ti-6Al-4V Alloy with Different Heat Treatment Methods. *Materials*, **2021**, 14,	3.5	1
76	A comparative study of plastic deformation mechanisms in room-temperature and cryogenically deformed magnesium alloy AZ31. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 807, 140821	5.3	6
75	Modeling and Optimization Methods in Forming Processes **2021**, 237-251		
74	The effects of hot forging on the preform additive manufactured 316 stainless steel parts. *Micron*, **2021**, 143, 103026	2.3	2
73	Enhanced plasticity at cryogenic temperature in a magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 811, 141001	5.3	4
72	Quantifying geometrically necessary dislocation density during hot deformation in AA6082 Al alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2021**, 814, 141158	5.3	5
71	Study of the microstructure, bonding evolution and mechanical properties of continuously extruded magnesium AZ31 sheet. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 819, 141456	5.3	1
70	Develop a novel high-strength vacuum brazing technique for TiAl intermetallic. *International Journal of Lightweight Materials and Manufacture*, **2021**, 4, 237-245	2.2	0
69	Dynamic mechanical behaviour induced by adiabatic temperature rise of FeMnAlC steel. *Materials Science and Technology*, **2021**, 37, 280-291	1.5	3
68	Understanding the Strain Path Effect on the Deformed Microstructure of Single Crystal Pure Aluminum. *Metals*, **2021**, 11, 1189	2.3	1
67	The influence of microstructural anisotropy on the hot deformation of wire arc additive manufactured (WAAM) Inconel 718. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 823, 141733	5.3	11

66	A study of solid-state bonding-by-hot-deforming mechanism in Inconel 718. *Journal of Materials Processing Technology*, **2021**, 295, 117191	5.3	4
65	Study of dislocation-twin boundary interaction mechanisms in plastic deformation of TWIP steel by discrete dislocation dynamics and dislocation density-based modeling. *International Journal of Plasticity*, **2021**, 145, 103076	7.6	7
64	How would the deformation bands affect recrystallization in pure aluminium?. *Materials and Design*, **2021**, 209, 109960	8.1	1
63	Evolution of twinning and shear bands in magnesium alloys during rolling at room and cryogenic temperature. *Materials and Design*, **2020**, 193, 108793	8.1	14
62	The study of flow behavior and governing mechanisms of a titanium alloy during superplastic forming. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 788, 139482	5.3	17
61	On the surface integrity of additive manufactured and post-processed AlSi10Mg parts. *Procedia CIRP*, **2020**, 87, 339-344	1.8	5
60	Microstructural effects on central crack formation in hot cross-wedge-rolled high-strength steel parts. *Journal of Materials Science*, **2020**, 55, 9608-9622	4.3	11
59	Design TiZrCuNi filler materials for vacuum brazing TA15 alloy. *Journal of Manufacturing Processes*, **2020**, 53, 328-335	5	5
58	Voltage Hysteresis Model for Silicon Electrodes for Lithium Ion Batteries, Including Multi-Step Phase Transformations, Crystallization and Amorphization. *Journal of the Electrochemical Society*, **2020**, 167, 130533	3.9	14
57	Experimental and crystal plasticity study on deformation bands in single crystal and multi-crystal pure aluminium. *Acta Materialia*, **2020**, 183, 78-92	8.4	14
56	A study of various heating effects on the microstructure and mechanical properties of AA6082 using EBSD and CPFE. *Journal of Alloys and Compounds*, **2020**, 818, 152921	5.7	4
55	A study on central crack formation in cross wedge rolling. *Journal of Materials Processing Technology*, **2020**, 279, 116549	5.3	16
54	Combining microstructural characterization with crystal plasticity and phase-field modelling for the study of static recrystallization in pure aluminium. *Computational Materials Science*, **2020**, 173, 109419	3.2	3
53	Effects of twin-twin interactions and deformation bands on the nucleation of recrystallization in AZ31 magnesium alloy. *Materials and Design*, **2020**, 194, 108936	8.1	8
52	Research on the hydroforming regularity and process optimization control of complex aluminum alloy part with variable cross-section size. *Procedia Manufacturing*, **2020**, 50, 332-336	1.5	2
51	Influence of surface micropatterns on the mode I fracture toughness of adhesively bonded joints. *International Journal of Adhesion and Adhesives*, **2020**, 103, 102718	3.4	7
50	Study of the Effects of Hot Forging on the Additively Manufactured Stainless Steel Preforms. *Journal of Manufacturing Processes*, **2020**, 57, 668-676	5	13
49	Microstructure evolution and mechanical properties of Ti2AlNb/TiAl brazed joint using newly-developed TiNiNbZr filler alloy. *Progress in Natural Science: Materials International*, **2020**, 30, 410-416	3.6	4

48	The study of central cracking mechanism and criterion in cross wedge rolling. *International Journal of Machine Tools and Manufacture*, **2020**, 159, 103647	9.4	3
47	Characterisation of carbonaceous deposits on diesel injector nozzles. *Fuel*, **2020**, 274, 117629	7.1	2
46	Experimental investigation of the viscoplastic behaviours and microstructure evolutions of AZ31B and Elektron 717 Mg-alloys. *Materials and Design*, **2019**, 184, 108160	8.1	5
45	Constitutive modeling for the simulation of the superplastic forming of TA15 titanium alloy. *International Journal of Mechanical Sciences*, **2019**, 164, 105178	5.5	19
44	Experimental investigation of novel fast□ageing treatments for AA6082 in supersaturated solid solution state. *Journal of Alloys and Compounds*, **2019**, 810, 151934	5.7	6
43	The dislocation behaviour and GND development in a nickel based superalloy during creep. *International Journal of Plasticity*, **2019**, 118, 252-268	7.6	67
42	Using transmission Kikuchi diffraction in a scanning electron microscope to quantify geometrically necessary dislocation density at the nanoscale. *Ultramicroscopy*, **2019**, 197, 39-45	3.1	25
41	Microstructural Evolution of Mechanically Deformed Polycrystalline Silicon for Kerfless Photovoltaics. *Physica Status Solidi (A) Applications and Materials Science*, **2019**, 216, 1800578	1.6	2
40	Predicting the hardness and solute distribution during brazing of Ti-6Al-4V with TiZrCuNi filler metals. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 712, 122-126	5.3	8
39	A comparative assessment of iron and cobalt-based hard-facing alloy deformation using HR-EBSD and HR-DIC. *Acta Materialia*, **2018**, 159, 173-186	8.4	25
38	Is stored energy density the primary meso-scale mechanistic driver for fatigue crack nucleation?. *International Journal of Plasticity*, **2018**, 101, 213-229	7.6	81
37	The effects of Zr level in Ti-Zr-Cu-Ni brazing fillers for brazing Ti-6Al-4V. *Journal of Manufacturing Processes*, **2018**, 31, 124-130	5	9
36	Static recrystallization study on pure aluminium using crystal plasticity finite element and phase-field modelling. *Procedia Manufacturing*, **2018**, 15, 1800-1807	1.5	3
35	Feasibility study on direct flame impingement heating applied for the solution heat treatment, forming and cold die quenching technique. *Journal of Manufacturing Processes*, **2018**, 36, 398-404	5	18
34	Develop an effective oxygen removal method for copper powder. *Advanced Powder Technology*, **2018**, 29, 1904-1912	4.6	5
33	Toward Predictive Understanding of Fatigue Crack Nucleation in Ni-Based Superalloys. *Jom*, **2017**, 69, 863-871	2.1	11
32	Microstructurally-sensitive fatigue crack nucleation in Ni-based single and oligo crystals. *Journal of the Mechanics and Physics of Solids*, **2017**, 106, 15-33	5	42
31	The development of high strength brazing technique for Ti-6Al-4V using TiZrCuNi amorphous filler. *Materials Characterization*, **2017**, 131, 526-531	3.9	19

30	Crystal plasticity modelling and HR-DIC measurement of slip activation and strain localization in single and oligo-crystal Ni alloys under fatigue. *International Journal of Plasticity*, **2017**, 88, 70-88	7.6	77
29	An integrated method for net-shape manufacturing components combining 3D additive manufacturing and compressive forming processes. *Procedia Engineering*, **2017**, 207, 1182-1187		17
28	Mechanism-based constitutive equations for superplastic forming of TA15 with equiaxed fine grain structure. *Procedia Engineering*, **2017**, 207, 1874-1879		3
27	A Chemical and Morphological Study of Diesel Injector Nozzle Deposits - Insights into their Formation and Growth Mechanisms. *SAE International Journal of Fuels and Lubricants*, **2017**, 10, 106-114	1.8	9
26	Microstructurally sensitive crack nucleation around inclusions in powder metallurgy nickel-based superalloys. *Acta Materialia*, **2016**, 117, 333-344	8.4	66
25	Mechanistic behaviour and modelling of creep in powder metallurgy FGH96 nickel superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2016**, 676, 441-449	5.3	40
24	An HR-EBSD and computational crystal plasticity investigation of microstructural stress distributions and fatigue hotspots in polycrystalline copper. *Acta Materialia*, **2016**, 115, 45-57	8.4	26
23	Crack nucleation using combined crystal plasticity modelling, high-resolution digital image correlation and high-resolution electron backscatter diffraction in a superalloy containing non-metallic inclusions under fatigue. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2016**, 472, 20150792	2.4	40
22	Tutorial: Crystal orientations and EBSD □Or which way is up?. *Materials Characterization*, **2016**, 117, 113-126	3.9	83
21	Metal-free chemical vapor deposition growth of graphitic tubular structures on engineered perovskite oxide substrates. *Carbon*, **2016**, 99, 591-598	10.4	4
20	Deformation compatibility in a single crystalline Ni superalloy. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2016**, 472, 20150690	2.4	28
19	Microstructure-sensitive fatigue crack nucleation in a polycrystalline Ni superalloy. *International Journal of Fatigue*, **2016**, 90, 181-190	5	37
18	On the mechanistic basis of fatigue crack nucleation in Ni superalloy containing inclusions using high resolution electron backscatter diffraction. *Acta Materialia*, **2015**, 97, 367-379	8.4	51
17	Slip localization and fatigue crack nucleation near a non-metallic inclusion in polycrystalline nickel-based superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 641, 328-339	5.3	48
16	The orientation and strain dependence of dislocation structure evolution in monotonically deformed polycrystalline copper. *International Journal of Plasticity*, **2015**, 69, 102-117	7.6	65
15	The effect of pattern overlap on the accuracy of high resolution electron backscatter diffraction measurements. *Ultramicroscopy*, **2015**, 155, 62-73	3.1	26
14	A study of direct forging process for powder superalloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 621, 68-75	5.3	26
13	Analysis of Dislocation Densities using High Resolution Electron Backscatter Diffraction. *Microscopy and Microanalysis*, **2015**, 21, 1891-1892	0.5	

12	Pattern Overlap and High Resolution Electron Backscatter Diffraction. *Microscopy and Microanalysis* , **2015**, 21, 2045-2046	0.5	
11	Evolution of intragranular stresses and dislocation densities during cyclic deformation of polycrystalline copper. *Acta Materialia*, **2015**, 94, 193-204	8.4	48
10	Measurement of probability distributions for internal stresses in dislocated crystals. *Applied Physics Letters*, **2014**, 105, 181907	3.4	23
9	A review of advances and challenges in EBSD strain mapping. *IOP Conference Series: Materials Science and Engineering*, **2014**, 55, 012020	0.4	26
8	Probing Deformation and Revealing Microstructural Mechanisms with Cross-Correlation-Based, High-Resolution Electron Backscatter Diffraction. *Jom*, **2013**, 65, 1245-1253	2.1	23
7	Assessing the precision of strain measurements using electron backscatter diffraction--part 1: detector assessment. *Ultramicroscopy*, **2013**, 135, 126-35	3.1	35
6	Evolution of dislocation density distributions in copper during tensile deformation. *Acta Materialia*, **2013**, 61, 7227-7239	8.4	149
5	Assessing the precision of strain measurements using electron backscatter diffraction--part 2: experimental demonstration. *Ultramicroscopy*, **2013**, 135, 136-41	3.1	21
4	Measurement of geometrically necessary dislocation density with high resolution electron backscatter diffraction: effects of detector binning and step size. *Ultramicroscopy*, **2013**, 125, 1-9	3.1	166
3	Mapping type III intragranular residual stress distributions in deformed copper polycrystals. *Acta Materialia*, **2013**, 61, 5895-5904	8.4	37
2	Accumulation of geometrically necessary dislocations near grain boundaries in deformed copper. *Philosophical Magazine Letters*, **2012**, 92, 580-588	1	36
1	An Investigation into the Forming of Fiber Metal Laminates with Different Thickness Metal Skins Using Hydromechanical Deep Drawing. *Applied Composite Materials*,1	2	0