

# Marko Knezevic

## List of Publications by Year in descending order

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180  
papers

9,427  
citations

23500

58  
h-index

48187

88  
g-index

183  
all docs

183  
docs citations

183  
times ranked

3094  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deformation twinning in AZ31: Influence on strain hardening and texture evolution. <i>Acta Materialia</i> , 2010, 58, 6230-6242.	3.8	558
2	Strain rate and temperature effects on the selection of primary and secondary slip and twinning systems in HCP Zr. <i>Acta Materialia</i> , 2015, 88, 55-73.	3.8	216
3	Strain rate and temperature sensitive multi-level crystal plasticity model for large plastic deformation behavior: Application to AZ31 magnesium alloy. <i>International Journal of Plasticity</i> , 2016, 83, 90-109.	4.1	177
4	Three dimensional predictions of grain scale plasticity and grain boundaries using crystal plasticity finite element models. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 277, 239-259.	3.4	155
5	Modeling bending of $\alpha$ -titanium with embedded polycrystal plasticity in implicit finite elements. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 564, 116-126.	2.6	153
6	Integration of self-consistent polycrystal plasticity with dislocation density based hardening laws within an implicit finite element framework: Application to low-symmetry metals. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 2034-2046.	2.3	146
7	A dislocation density based crystal plasticity finite element model: Application to a two-phase polycrystalline HCP/BCC composites. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 66, 16-31.	2.3	145
8	A strain-rate and temperature dependent constitutive model for BCC metals incorporating non-Schmid effects: Application to tantalum-tungsten alloys. <i>International Journal of Plasticity</i> , 2014, 62, 93-104.	4.1	143
9	A polycrystal plasticity model for predicting mechanical response and texture evolution during strain-path changes: Application to beryllium. <i>International Journal of Plasticity</i> , 2013, 49, 185-198.	4.1	141
10	Deformation twinning in rolled WE43-T5 rare earth magnesium alloy: Influence on strain hardening and texture evolution. <i>Acta Materialia</i> , 2017, 131, 221-232.	3.8	138
11	A study of microstructure-driven strain localizations in two-phase polycrystalline HCP/BCC composites using a multi-scale model. <i>International Journal of Plasticity</i> , 2015, 74, 35-57.	4.1	137
12	Explicit incorporation of deformation twins into crystal plasticity finite element models. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 295, 396-413.	3.4	133
13	A dislocation density based elasto-plastic self-consistent model for the prediction of cyclic deformation: Application to AA6022-T4. <i>International Journal of Plasticity</i> , 2015, 72, 200-217.	4.1	133
14	Low cycle fatigue behavior of direct metal laser sintered Inconel alloy 718. <i>International Journal of Fatigue</i> , 2016, 93, 156-167.	2.8	132
15	Crystal plasticity simulations using discrete Fourier transforms. <i>Acta Materialia</i> , 2009, 57, 1777-1784.	3.8	131
16	Microstructure and mechanical behavior of direct metal laser sintered Inconel alloy 718. <i>Materials Characterization</i> , 2016, 113, 1-9.	1.9	130
17	A crystal plasticity model incorporating the effects of precipitates in superalloys: Application to tensile, compressive, and cyclic deformation of Inconel 718. <i>International Journal of Plasticity</i> , 2017, 99, 162-185.	4.1	127
18	In situ X-ray diffraction and crystal plasticity modeling of the deformation behavior of extruded Mg-Li (Al) alloys: An uncommon tension-compression asymmetry. <i>Acta Materialia</i> , 2015, 86, 254-268.	3.8	123

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19	Modeling mechanical response and texture evolution of $\hat{\epsilon}$ -uranium as a function of strain rate and temperature using polycrystal plasticity. <i>International Journal of Plasticity</i> , 2013, 43, 70-84.	4.1	118
20	Computationally efficient database and spectral interpolation for fully plastic Taylor-type crystal plasticity calculations of face-centered cubic polycrystals. <i>International Journal of Plasticity</i> , 2008, 24, 1264-1276.	4.1	115
21	Dual-phase steel sheets under cyclic tension-compression to large strains: Experiments and crystal plasticity modeling. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 96, 65-87.	2.3	115
22	Texture evolution in two-phase Zr/Nb lamellar composites during accumulative roll bonding. <i>International Journal of Plasticity</i> , 2014, 57, 16-28.	4.1	112
23	Experimental characterization and crystal plasticity modeling of anisotropy, tension-compression asymmetry, and texture evolution of additively manufactured Inconel 718 at room and elevated temperatures. <i>International Journal of Plasticity</i> , 2020, 125, 63-79.	4.1	111
24	Anisotropic stress-strain response and microstructure evolution of textured $\hat{\epsilon}$ -uranium. <i>Acta Materialia</i> , 2012, 60, 702-715.	3.8	109
25	An elasto-plastic self-consistent model with hardening based on dislocation density, twinning and de-twinning: Application to strain path changes in HCP metals. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 638, 262-274.	2.6	104
26	Fast computation of first-order elastic-plastic closures for polycrystalline cubic-orthorhombic microstructures. <i>Computational Materials Science</i> , 2007, 39, 643-648.	1.4	102
27	Grain size and orientation distributions: Application to yielding of $\hat{\epsilon}$ -titanium. <i>Acta Materialia</i> , 2009, 57, 2339-2348.	3.8	96
28	Effect of dislocation density-twin interactions on twin growth in AZ31 as revealed by explicit crystal plasticity finite element modeling. <i>International Journal of Plasticity</i> , 2017, 99, 81-101.	4.1	96
29	Spectral calibration of crystal plasticity models. <i>Acta Materialia</i> , 2006, 54, 1795-1804.	3.8	95
30	Anomalous Basal Slip Activity in Zirconium under High-strain Deformation. <i>Materials Research Letters</i> , 2013, 1, 133-140.	4.1	93
31	Role of grain structure, grain boundaries, crystallographic texture, precipitates, and porosity on fatigue behavior of Inconel 718 at room and elevated temperatures. <i>Materials Characterization</i> , 2019, 149, 184-197.	1.9	93
32	Coupling elasto-plastic self-consistent crystal plasticity and implicit finite elements: Applications to compression, cyclic tension-compression, and bending to large strains. <i>International Journal of Plasticity</i> , 2017, 93, 187-211.	4.1	92
33	Mechanical response, twinning, and texture evolution of WE43 magnesium-rare earth alloy as a function of strain rate: Experiments and multi-level crystal plasticity modeling. <i>International Journal of Plasticity</i> , 2019, 120, 180-204.	4.1	88
34	Deformation behavior of the cobalt-based superalloy Haynes 25: Experimental characterization and crystal plasticity modeling. <i>Acta Materialia</i> , 2014, 63, 162-168.	3.8	86
35	Elastic-plastic property closures for hexagonal close-packed polycrystalline metals using first-order bounding theories. <i>Acta Materialia</i> , 2007, 55, 2729-2737.	3.8	81
36	A high-performance computational framework for fast crystal plasticity simulations. <i>Computational Materials Science</i> , 2014, 83, 101-106.	1.4	81

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37	Application of microstructure sensitive design to structural components produced from hexagonal polycrystalline metals. <i>Computational Materials Science</i> , 2008, 43, 374-383.	1.4	80
38	Building texture evolution networks for deformation processing of polycrystalline fcc metals using spectral approaches: Applications to process design for targeted performance. <i>International Journal of Plasticity</i> , 2010, 26, 1183-1194.	4.1	79
39	Bulk texture evolution of nanolamellar Zr-Nb composites processed via accumulative roll bonding. <i>Acta Materialia</i> , 2015, 92, 97-108.	3.8	79
40	Delineation of first-order closures for plastic properties requiring explicit consideration of strain hardening and crystallographic texture evolution. <i>International Journal of Plasticity</i> , 2008, 24, 327-342.	4.1	78
41	Effect of age hardening on the deformation behavior of an Mg-Y-Nd alloy: In-situ X-ray diffraction and crystal plasticity modeling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 628, 396-409.	2.6	76
42	Compressive, shear, and fracture behavior of CNT reinforced Al matrix composites manufactured by severe plastic deformation. <i>Materials and Design</i> , 2016, 106, 112-119.	3.3	75
43	Anisotropic modeling of structural components using embedded crystal plasticity constructive laws within finite elements. <i>International Journal of Mechanical Sciences</i> , 2016, 105, 227-238.	3.6	74
44	Determining volume fractions of $\beta$ , $\beta_2$ , $\beta_3$ , and MC-carbide phases in Inconel 718 as a function of its processing history using an advanced neutron diffraction procedure. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 781, 139228.	2.6	74
45	A new implementation of the spectral crystal plasticity framework in implicit finite elements. <i>Mechanics of Materials</i> , 2015, 84, 114-126.	1.7	72
46	Latent hardening within the elasto-plastic self-consistent polycrystal homogenization to enable the prediction of anisotropy of AA6022-T4 sheets. <i>International Journal of Plasticity</i> , 2018, 105, 141-163.	4.1	68
47	Texture evolution and enhanced grain refinement under high-pressure-double-torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 611, 29-36.	2.6	67
48	Procedures for reducing large datasets of crystal orientations using generalized spherical harmonics. <i>Mechanics of Materials</i> , 2015, 88, 73-86.	1.7	67
49	A numerical procedure enabling accurate descriptions of strain rate-sensitive flow of polycrystals within crystal visco-plasticity theory. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 308, 468-482.	3.4	67
50	Material-based design of the extrusion of bimetallic tubes. <i>Computational Materials Science</i> , 2014, 95, 63-73.	1.4	66
51	Texture formation in orthorhombic alpha-uranium under simple compression and rolling to high strains. <i>Journal of Nuclear Materials</i> , 2016, 473, 143-156.	1.3	66
52	Deep drawing simulations using the finite element method embedding a multi-level crystal plasticity constitutive law: Experimental verification and sensitivity analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 354, 245-270.	3.4	65
53	Explicit modeling of double twinning in AZ31 using crystal plasticity finite elements for predicting the mechanical fields for twin variant selection and fracture analyses. <i>Acta Materialia</i> , 2018, 157, 339-354.	3.8	64
54	Spectral database solutions to elasto-viscoplasticity within finite elements: Application to a cobalt-based FCC superalloy. <i>International Journal of Plasticity</i> , 2015, 70, 151-165.	4.1	62

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55	Activity of pyramidal I and II & slip in Mg alloys as revealed by texture development. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 111, 290-307.	2.3	61
56	The plasticity of highly oriented nano-layered Zr/Nb composites. <i>Acta Materialia</i> , 2016, 115, 189-203.	3.8	60
57	Average intragranular misorientation trends in polycrystalline materials predicted by a viscoplastic self-consistent approach. <i>Acta Materialia</i> , 2016, 104, 228-236.	3.8	60
58	Deformation and fracture mechanisms in WE43 magnesium-rare earth alloy fabricated by direct-chill casting and rolling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 726, 194-207.	2.6	60
59	Representation of the orientation distribution function and computation of first-order elastic properties closures using discrete Fourier transforms. <i>Acta Materialia</i> , 2009, 57, 3916-3923.	3.8	59
60	High-Pressure Double Torsion as a Severe Plastic Deformation Process: Experimental Procedure and Finite Element Modeling. <i>Journal of Materials Engineering and Performance</i> , 2015, 24, 1471-1482.	1.2	59
61	An implicit formulation of the elasto-plastic self-consistent polycrystal plasticity model and its implementation in implicit finite elements. <i>Mechanics of Materials</i> , 2019, 136, 103065.	1.7	59
62	Microstructure and mechanical properties of carbon nanotubes reinforced aluminum matrix composites synthesized via equal-channel angular pressing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 670, 205-216.	2.6	58
63	Modelling recrystallization textures driven by intragranular fluctuations implemented in the viscoplastic self-consistent formulation. <i>Acta Materialia</i> , 2019, 164, 530-546.	3.8	57
64	A crystallographic extension to the Olson-Cohen model for predicting strain path dependence of martensitic transformation. <i>Acta Materialia</i> , 2019, 166, 386-401.	3.8	56
65	Effects of build orientation and heat treatment on the evolution of microstructure and mechanical properties of alloy Mar-M-509 fabricated via laser powder bed fusion. <i>International Journal of Plasticity</i> , 2019, 121, 116-133.	4.1	54
66	A new visco-plastic self-consistent formulation implicit in dislocation-based hardening within implicit finite elements: Application to high strain rate and impact deformation of tantalum. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 341, 888-916.	3.4	53
67	Modeling discrete twin lamellae in a microstructural framework. <i>Scripta Materialia</i> , 2016, 121, 84-88.	2.6	52
68	Enhancement of orientation gradients during simple shear deformation by application of simple compression. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	51
69	Enhanced microstructural homogeneity in metal-matrix composites developed under high-pressure-double-torsion. <i>Materials Characterization</i> , 2015, 104, 92-100.	1.9	50
70	Microstructure and texture evolution in Mg/Nb layered materials made by accumulative roll bonding. <i>International Journal of Plasticity</i> , 2020, 125, 1-26.	4.1	50
71	Modeling of the thermo-mechanical response and texture evolution of WE43 Mg alloy in the dynamic recrystallization regime using a viscoplastic self-consistent formulation. <i>International Journal of Plasticity</i> , 2020, 130, 102705.	4.1	50
72	Modeling of Sheet Metal Forming Based on Implicit Embedding of the Elasto-Plastic Self-Consistent Formulation in Shell Elements: Application to Cup Drawing of AA6022-T4. <i>Jom</i> , 2017, 69, 922-929.	0.9	48

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73	Transitioning rate sensitivities across multiple length scales: Microstructure-property relationships in the Taylor cylinder impact test on zirconium. <i>International Journal of Plasticity</i> , 2016, 84, 138-159.	4.1	47
74	Modeling of intragranular misorientation and grain fragmentation in polycrystalline materials using the viscoplastic self-consistent formulation. <i>International Journal of Plasticity</i> , 2018, 109, 193-211.	4.1	46
75	Residual Ductility and Microstructural Evolution in Continuous-Bending-under-Tension of AA-6022-T4. <i>Materials</i> , 2016, 9, 130.	1.3	45
76	Origin of texture development in orthorhombic uranium. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 665, 108-124.	2.6	44
77	Multiscale Modeling of Microstructure-Property Relationships of Polycrystalline Metals during Thermo-Mechanical Deformation. <i>Advanced Engineering Materials</i> , 2018, 20, 1700956.	1.6	44
78	Predicting intragranular misorientation distributions in polycrystalline metals using the viscoplastic self-consistent formulation. <i>Acta Materialia</i> , 2017, 140, 398-410.	3.8	43
79	Rate and temperature dependent deformation behavior of as-cast WE43 magnesium-rare earth alloy manufactured by direct-chill casting. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 712, 50-64.	2.6	43
80	Room temperature deformation mechanisms of Mg/Nb nanolayered composites. <i>Journal of Materials Research</i> , 2018, 33, 1311-1332.	1.2	43
81	Effect of hot working and aging heat treatments on monotonic, cyclic, and fatigue behavior of WE43 magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 747, 27-41.	2.6	43
82	Computer implementations of iterative and non-iterative crystal plasticity solvers on high performance graphics hardware. <i>Computational Mechanics</i> , 2015, 56, 677-690.	2.2	41
83	Compact reconstruction of orientation distributions using generalized spherical harmonics to advance large-scale crystal plasticity modeling: Verification using cubic, hexagonal, and orthorhombic polycrystals. <i>Acta Materialia</i> , 2018, 155, 418-432.	3.8	41
84	Predicting elastic anisotropy of dual-phase steels based on crystal mechanics and microstructure. <i>International Journal of Mechanical Sciences</i> , 2019, 151, 639-649.	3.6	40
85	High-performance full-field crystal plasticity with dislocation-based hardening and slip system back-stress laws: Application to modeling deformation of dual-phase steels. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 134, 103750.	2.3	40
86	Stress-assisted ( $\sigma$ ) and strain-induced ( $\mu$ ) phase transformation kinetics laws implemented in a crystal plasticity model for predicting strain path sensitive deformation of austenitic steels. <i>International Journal of Plasticity</i> , 2021, 136, 102807.	4.1	40
87	Characterization of Crystallographic Texture and Intra-Grain Morphology in Cross-Rolled Tantalum. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 1085-1096.	1.1	39
88	Coupled texture and non-Schmid effects on yield surfaces of body-centered cubic polycrystals predicted by a crystal plasticity finite element approach. <i>International Journal of Solids and Structures</i> , 2017, 109, 22-32.	1.3	39
89	Elevated Temperature Effects on the Plastic Anisotropy of an Extruded Mg-4 Wt Pct Li Alloy: Experiments and Polycrystal Modeling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 446-458.	1.1	39
90	OpenMP and MPI implementations of an elasto-viscoplastic fast Fourier transform-based micromechanical solver for fast crystal plasticity modeling. <i>Advances in Engineering Software</i> , 2018, 126, 46-60.	1.8	39

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91	Origins of high ductility exhibited by an extruded magnesium alloy Mg-1.8Zn-0.2Ca: Experiments and crystal plasticity modeling. <i>Journal of Materials Science and Technology</i> , 2021, 84, 27-42.	5.6	39
92	Over five-times improved elongation-to-fracture of dual-phase 1180 steel by continuous-bending-under-tension. <i>Materials and Design</i> , 2019, 161, 95-105.	3.3	38
93	Polycrystal plasticity modeling for load reversals in commercially pure titanium. <i>International Journal of Plasticity</i> , 2020, 125, 294-313.	4.1	37
94	Modelling the temperature and texture effects on the deformation mechanisms of magnesium alloy AZ31. <i>International Journal of Mechanical Sciences</i> , 2020, 182, 105727.	3.6	36
95	Three orders of magnitude improved efficiency with high-performance spectral crystal plasticity on GPU platforms. <i>International Journal for Numerical Methods in Engineering</i> , 2014, 97, 785-798.	1.5	35
96	Low-cycle fatigue behavior of rolled WE43-T5 magnesium alloy. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2019, 42, 1357-1372.	1.7	35
97	A crystal plasticity finite element model embedding strain-rate sensitivities inherent to deformation mechanisms: Application to alloy AZ31. <i>International Journal of Plasticity</i> , 2021, 143, 103031.	4.1	35
98	Effect of microstructure induced anisotropy on fatigue behaviour of functionally graded Inconel 718 fabricated by additive manufacturing. <i>Materials Characterization</i> , 2021, 179, 111350.	1.9	35
99	An automated procedure for geometry creation and finite element mesh generation: Application to explicit grain structure models and machining distortion. <i>Computational Materials Science</i> , 2018, 141, 269-281.	1.4	34
100	A comparative study between elasto-plastic self-consistent crystal plasticity and anisotropic yield function with distortional hardening formulations for sheet metal forming. <i>Mechanics of Materials</i> , 2020, 148, 103422.	1.7	34
101	Predicting deformation behavior of $\delta$ -uranium during tension, compression, load reversal, rolling, and sheet forming using elasto-plastic, multi-level crystal plasticity coupled with finite elements. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 138, 103924.	2.3	34
102	Predicting Texture Evolution in Ta and Ta-10W Alloys Using Polycrystal Plasticity. <i>Jom</i> , 2015, 67, 2670-2674.	0.9	33
103	Microstructure effects on the recrystallization of low-symmetry alpha-uranium. <i>Journal of Nuclear Materials</i> , 2015, 465, 189-195.	1.3	33
104	Identification of crystal plasticity model parameters by multi-objective optimization integrating microstructural evolution and mechanical data. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 379, 113747.	3.4	31
105	Spectral database constitutive representation within a spectral micromechanical solver for computationally efficient polycrystal plasticity modelling. <i>Computational Mechanics</i> , 2018, 61, 89-104.	2.2	31
106	Delineation of First-Order Elastic Property Closures for Hexagonal Metals Using Fast Fourier Transforms. <i>Materials</i> , 2015, 8, 6326-6345.	1.3	30
107	A multi-GPU implementation of a full-field crystal plasticity solver for efficient modeling of high-resolution microstructures. <i>Computer Physics Communications</i> , 2020, 254, 107231.	3.0	30
108	Origin of plastic anisotropy in (ultra)-fine-grained Mg-Zn-Zr alloy processed by isothermal multi-step forging and rolling: Experiments and modeling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 713, 81-93.	2.6	29

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109	Review of microstructure and micromechanism-based constitutive modeling of polycrystals with a low-symmetry crystal structure. <i>Journal of Materials Research</i> , 2018, 33, 3711-3738.	1.2	29
110	Effects of heat treatment and build orientation on the evolution of $\beta$ and $\epsilon$ martensite and strength during compressive loading of additively manufactured 304L stainless steel. <i>Acta Materialia</i> , 2020, 195, 59-70.	3.8	29
111	A numerical study into element type and mesh resolution for crystal plasticity finite element modeling of explicit grain structures. <i>Computational Mechanics</i> , 2021, 67, 33-55.	2.2	29
112	Modelling dynamic recrystallisation in magnesium alloy AZ31. <i>International Journal of Plasticity</i> , 2021, 142, 102995.	4.1	29
113	A generalized spherical harmonics-based procedure for the interpolation of partial datasets of orientation distributions to enable crystal mechanics-based simulations. <i>Materialia</i> , 2019, 6, 100328.	1.3	28
114	Non-acid, alcohol-based electropolishing enables high-quality electron backscatter diffraction characterization of titanium and its alloys: Application to pure Ti and Ti-6Al-4V. <i>Materials Characterization</i> , 2020, 166, 110406.	1.9	28
115	Modeling the role of local crystallographic correlations in microstructures of Ti-6Al-4V using a correlated structure visco-plastic self-consistent polycrystal plasticity formulation. <i>Acta Materialia</i> , 2021, 203, 116502.	3.8	28
116	A full-field crystal plasticity model including the effects of precipitates: Application to monotonic, load reversal, and low-cycle fatigue behavior of Inconel 718. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140478.	2.6	27
117	Experimental characterization and crystal plasticity modeling for predicting load reversals in AA6016-T4 and AA7021-T79. <i>International Journal of Plasticity</i> , 2022, 153, 103292.	4.1	27
118	Modeling of trans-grain twin transmission in AZ31 via a neighborhood-based viscoplastic self-consistent model. <i>International Journal of Plasticity</i> , 2019, 117, 21-32.	4.1	26
119	Experimental study of continuous-bending-under-tension of AA6022-T4. <i>Journal of Materials Processing Technology</i> , 2019, 266, 707-714.	3.1	24
120	Fabrication of a low alloy ultra-high strength (>1500 MPa yield) steel using powder bed fusion additive manufacturing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 770, 138512.	2.6	23
121	Additive manufacturing of functionally graded inconel 718: Effect of heat treatment and building orientation on microstructure and fatigue behaviour. <i>Journal of Materials Processing Technology</i> , 2022, 306, 117573.	3.1	23
122	Crystal plasticity modeling of strain-induced martensitic transformations to predict strain rate and temperature sensitive behavior of 304L steels: Applications to tension, compression, torsion, and impact. <i>International Journal of Plasticity</i> , 2022, 156, 103367.	4.1	23
123	Strengthening of alloy AA6022-T4 by continuous bending under tension. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 758, 47-55.	2.6	22
124	Modeling material behavior during continuous bending under tension for inferring the post-necking strain hardening response of ductile sheet metals: Application to DP 780 steel. <i>International Journal of Mechanical Sciences</i> , 2020, 174, 105508.	3.6	22
125	Characterization of microstructure in Nb rods processed by rolling: Effect of grooved rolling die geometry on texture uniformity. <i>International Journal of Refractory Metals and Hard Materials</i> , 2017, 66, 44-51.	1.7	20
126	Microstructure metrics for quantitative assessment of particle size and dispersion: Application to metal-matrix composites. <i>Powder Technology</i> , 2017, 311, 226-238.	2.1	20



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127	Thermo-hydrogen refinement of microstructure to improve mechanical properties of Ti-6Al-4V fabricated via laser powder bed fusion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 809, 140980.	2.6	20
128	Mechanical behavior and texture evolution of WE43 magnesium-rare earth alloy in Split-Hopkinson Pressure Bar and Taylor Impact Cylinder Testing. <i>International Journal of Impact Engineering</i> , 2020, 143, 103589.	2.4	19
129	In-situ high-energy X-ray diffraction and crystal plasticity modeling to predict the evolution of texture, twinning, lattice strains and strength during loading and reloading of beryllium. <i>International Journal of Plasticity</i> , 2022, 150, 103217.	4.1	19
130	Experimental studies into the role of cyclic bending during stretching of dual-phase steel sheets. <i>International Journal of Material Forming</i> , 2020, 13, 393-408.	0.9	18
131	Elastic constants of pure body-centered cubic Mg in nanolaminates. <i>Computational Materials Science</i> , 2020, 174, 109501.	1.4	18
132	Effects of environmental temperature and sample pre-straining on high cycle fatigue strength of WE43-T5 magnesium alloy. <i>International Journal of Fatigue</i> , 2020, 141, 105903.	2.8	18
133	Plasticity and structure evolution of ferrite and martensite in DP 1180 during tension and cyclic bending under tension to large strains. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 820, 141536.	2.6	18
134	Experimental characterization and crystal plasticity modeling of dual-phase steels subjected to strain path reversals. <i>Mechanics of Materials</i> , 2022, 168, 104293.	1.7	18
135	Crystal Plasticity Modeling of Microstructure Evolution and Mechanical Fields During Processing of Metals Using Spectral Databases. <i>Jom</i> , 2017, 69, 830-838.	0.9	17
136	Inferring Post-Necking Strain Hardening Behavior of Sheets by a Combination of Continuous Bending Under Tension Testing and Finite Element Modeling. <i>Experimental Mechanics</i> , 2020, 60, 459-473.	1.1	17
137	Validation of recent analytical dilatational models for porous polycrystals using crystal plasticity finite element models with Schmid and non-Schmid activation laws. <i>Mechanics of Materials</i> , 2018, 126, 148-162.	1.7	16
138	Rare-earth- and aluminum-free, high strength dilute magnesium alloy for Biomedical Applications. <i>Scientific Reports</i> , 2020, 10, 15839.	1.6	16
139	Graphics processing unit accelerated phase field dislocation dynamics: Application to bi-metallic interfaces. <i>Advances in Engineering Software</i> , 2018, 115, 248-267.	1.8	15
140	Effects of Pressure and Number of Turns on Microstructural Homogeneity Developed in High-Pressure Double Torsion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 1249-1263.	1.1	14
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