

Yi-Nan Cui

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

1,282
citations

361413

20
h-index

361022

35
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53
all docs

53
docs citations

53
times ranked

782
citing authors

#	ARTICLE	IF	CITATIONS
1	A phenomenological dislocation mobility law for bcc metals. <i>Acta Materialia</i> , 2016, 119, 123-135.	7.9	163
2	Theoretical and numerical investigations of single arm dislocation source controlled plastic flow in FCC micropillars. <i>International Journal of Plasticity</i> , 2014, 55, 279-292.	8.8	88
3	Enhanced strengthening and hardening via self-stabilized dislocation network in additively manufactured metals. <i>Materials Today</i> , 2021, 50, 79-88.	14.2	82
4	Avalanches and plastic flow in crystal plasticity: an overview. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2018, 26, 013001.	2.0	75
5	Hot-wire arc additive manufacturing of aluminum alloy with reduced porosity and high deposition rate. <i>Materials and Design</i> , 2021, 199, 109370.	7.0	70
6	A coupled dislocation dynamics-continuum barrier field model with application to irradiated materials. <i>International Journal of Plasticity</i> , 2018, 104, 54-67.	8.8	65
7	Temperature insensitivity of the flow stress in body-centered cubic micropillar crystals. <i>Acta Materialia</i> , 2016, 108, 128-137.	7.9	60
8	Controlling Strain Bursts and Avalanches at the Nano- to Micrometer Scale. <i>Physical Review Letters</i> , 2016, 117, 155502.	7.8	49
9	Does irradiation enhance or inhibit strain bursts at the submicron scale?. <i>Acta Materialia</i> , 2017, 132, 285-297.	7.9	48
10	Quantitative investigations on dislocation based discrete-continuous model of crystal plasticity at submicron scale. <i>International Journal of Plasticity</i> , 2015, 69, 54-72.	8.8	47
11	Cyclic deformation leads to defect healing and strengthening of small-volume metal crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 13502-13507.	7.1	40
12	Size-Tuned Plastic Flow Localization in Irradiated Materials at the Submicron Scale. <i>Physical Review Letters</i> , 2018, 120, 215501.	7.8	34
13	Influence of loading control on strain bursts and dislocation avalanches at the nanometer and micrometer scale. <i>Physical Review B</i> , 2017, 95, .	3.2	33
14	Additive manufacturing of tungsten, tungsten-based alloys, and tungsten matrix composites. <i>Tungsten</i> , 2023, 5, 1-31.	4.8	32
15	Characterization of Microstructure and Mechanical Properties of Stellite 6 Part Fabricated by Wire Arc Additive Manufacturing. <i>Metals</i> , 2019, 9, 474.	2.3	31
16	Theoretical and numerical investigations on confined plasticity in micropillars. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 76, 127-143.	4.8	28
17	The role of slow screw dislocations in controlling fast strain avalanche dynamics in body-centered cubic metals. <i>International Journal of Plasticity</i> , 2020, 124, 117-132.	8.8	27
18	A stochastic crystal plasticity model with size-dependent and intermittent strain bursts characteristics at micron scale. <i>International Journal of Solids and Structures</i> , 2015, 69-70, 267-276.	2.7	24

#	ARTICLE	IF	CITATIONS
19	Discrete stochastic model of point defect-dislocation interaction for simulating dislocation climb. International Journal of Plasticity, 2021, 136, 102848.	8.8	24
20	In-situ fabrication of Ti2AlNb-based alloy through double-wire arc additive manufacturing. Journal of Alloys and Compounds, 2021, 876, 160021.	5.5	21
21	Temperature dependent deformation localization in irradiated tungsten. International Journal of Plasticity, 2021, 146, 103077.	8.8	21
22	Mechanical annealing under low-amplitude cyclic loading in micropillars. Journal of the Mechanics and Physics of Solids, 2016, 89, 1-15.	4.8	20
23	Interpreting strain burst in micropillar compression through instability of loading system. International Journal of Plasticity, 2018, 107, 150-163.	8.8	20
24	Computational 3-dimensional dislocation elastodynamics. Journal of the Mechanics and Physics of Solids, 2019, 126, 20-51.	4.8	20
25	Understanding internal defects in Mo fabricated by wire arc additive manufacturing through 3D computed tomography. Journal of Alloys and Compounds, 2020, 840, 155753.	5.5	17
26	Suppression of Localized Plastic Flow in Irradiated Materials. Scripta Materialia, 2018, 154, 34-39.	5.2	15
27	The influence of nano/micro sample size on the strain-rate sensitivity of plastic flow in tungsten. International Journal of Plasticity, 2021, 136, 102854.	8.8	13
28	A coupled crystal-plasticity and phase-field model for understanding fracture behaviors of single crystal tungsten. International Journal of Plasticity, 2022, 157, 103375.	8.8	12
29	Eliminating microstructure and mechanical anisotropy of Ti-6.5Al-2Zr-1Mo-1V manufactured by hot-wire arc additive manufacturing through boron addition. Journal of Materials Science, 2021, 56, 12438-12454.	3.7	11
30	Plasticity of irradiated materials at the nano and micro-scales. Journal of Nuclear Materials, 2021, 546, 152746.	2.7	10
31	A statistical model of irradiation hardening induced by non-periodic irradiation defects. Scripta Materialia, 2021, 201, 113959.	5.2	9
32	An investigation into Ti-22Al-25Nb in-situ fabricated by electron beam freeform fabrication with an innovative twin-wire parallel feeding method. Additive Manufacturing, 2022, 50, 102552.	3.0	8
33	A discrete-continuous model of three-dimensional dislocation elastodynamics. International Journal of Plasticity, 2022, 152, 103221.	8.8	8
34	Dislocation Multiplication by Single Cross Slip for FCC at Submicron Scales. Chinese Physics Letters, 2013, 30, 046103.	3.3	7
35	Revisiting the Power Law Characteristics of the Plastic Shock Front under Shock Loading. Physical Review Letters, 2021, 126, 085503.	7.8	7
36	Effect of twin-wire feeding methods on the in-situ synthesis of electron beam fabricated Ti-Al-Nb intermetallics. Materials and Design, 2022, 215, 110509.	7.0	7

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37	Microstructure and mechanical properties of unalloyed molybdenum fabricated via wire arc additive manufacturing. International Journal of Refractory Metals and Hard Materials, 2022, 107, 105886.	3.8	7
38	A concurrent irradiation-mechanics multiscale coupling model. Journal of the Mechanics and Physics of Solids, 2022, 167, 105005.	4.8	7
39	Influence of Size on the Fractal Dimension of Dislocation Microstructure. Metals, 2019, 9, 478.	2.3	4
40	Dislocation evolution during additive manufacturing of tungsten. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 024001.	2.0	4
41	Spatio-temporal plastic instabilities at the nano/micro scale. Journal of Micromechanics and Molecular Physics, 2018, 03, 1840006.	1.2	3
42	Dislocation Dynamics Simulations of Defects in Irradiated Materials. , 2020, , 689-716.		3
43	Achieving high strength-ductility of Al-Zn-Mg-Cu alloys via hot-wire arc additive manufacturing enabled by strengthening precipitates. Additive Manufacturing, 2022, 58, 103042.	3.0	3
44	A New View of Incipient Plastic Instability during Nanoindentation. Chinese Physics Letters, 2017, 34, 046101.	3.3	2
45	Microstructure-specific hardening of ferritic-martensitic steels pre and post 15 dpa neutron irradiation at 330Å°C: A dislocation dynamics study. Nuclear Materials and Energy, 2021, 26, 100814.	1.3	1
46	Elastic interaction-induced anisotropic growth of dislocation loop arrays. Journal of Materials Research, 2021, 36, 3426.	2.6	1
47	New insights into spatio-temporal dynamics of irradiation defects rafting. Journal of Nuclear Materials, 2022, 568, 153840.	2.7	1
48	The Investigation of Plastic Behavior by Discrete Dislocation Dynamics for Single Crystal Pillar at Submicron Scale. Springer Theses, 2017, , .	0.1	0
49	Discrete-Continuous Model of Crystal Plasticity. Springer Theses, 2017, , 21-55.	0.1	0
50	Mechanical Annealing Under Low Amplitude Cyclic Loading in Micropillars. Springer Theses, 2017, , 107-127.	0.1	0
51	Confined Plasticity in Micropillars. Springer Theses, 2017, , 79-106.	0.1	0
52	Elastodynamics Field of Non-Uniformly Moving Dislocation: From 3D to 2D. Crystals, 2022, 12, 363.	2.2	0