

Yang Cai

List of Publications by Year in descending order

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26
papers

289
citations

840776

11
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888059

17
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all docs

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docs citations

26
times ranked

259
citing authors

#	ARTICLE	IF	CITATIONS
1	Shock response of single crystal and nanocrystalline pentaerythritol tetranitrate: Implications to hotspot formation in energetic materials. <i>Journal of Chemical Physics</i> , 2013, 139, 164704.	3.0	34
2	Cavitation in a metallic liquid: Homogeneous nucleation and growth of nanovoids. <i>Journal of Chemical Physics</i> , 2014, 140, 214317.	3.0	28
3	Spall strength of liquid copper and accuracy of the acoustic method. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	27
4	Grain boundary orientation effects on deformation of Ta bicrystal nanopillars under high strain-rate compression. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	21
5	Deformation and spallation of shock-loaded graphene: Effects of orientation and grain boundary. <i>Carbon</i> , 2018, 132, 520-528.	10.3	21
6	Second yield via dislocation-induced premelting in copper. <i>Physical Review B</i> , 2016, 93, .	3.2	20
7	Tensile Strength of Liquids: Equivalence of Temporal and Spatial Scales in Cavitation. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 806-810.	4.6	17
8	Homogeneous crystal nucleation in liquid copper under quasi-isentropic compression. <i>Physical Review B</i> , 2015, 92, .	3.2	16
9	A loading-dependent model of critical resolved shear stress. <i>International Journal of Plasticity</i> , 2018, 109, 1-17.	8.8	12
10	Spallation of polycarbonate under plate impact loading. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	12
11	Texture evolution in nanocrystalline Cu under shock compression. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	12
12	High-speed penetration dynamics of polycarbonate. <i>International Journal of Mechanical Sciences</i> , 2022, 223, 107250.	6.7	9
13	Texture of nanocrystalline solids: atomic scale characterization and applications. <i>Journal of Applied Crystallography</i> , 2018, 51, 124-132.	4.5	7
14	Acoustic and double elastic shock waves in single-crystal graphene. <i>Journal of Applied Physics</i> , 2020, 127, 055101.	2.5	7
15	Penetration dynamics of steel spheres into a ballistic gelatin: Experiments, nondimensional analysis, and finite element modeling. <i>International Journal of Impact Engineering</i> , 2022, 162, 104144.	5.0	7
16	Shock-induced twinning and texture in a mild carbon steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 773, 138832.	5.6	6
17	Compression and spallation properties of polyethylene terephthalate under plate impact loading. <i>International Journal of Mechanical Sciences</i> , 2021, 211, 106736.	6.7	6
18	ACAT: A GPU-accelerated parallel code for constructing ultralarge Atomic Configurations with Arbitrary Texture. <i>Computational Materials Science</i> , 2021, 186, 109997.	3.0	4

#	ARTICLE	IF	CITATIONS
19	<i><i>DATAD</i></i> : a Python-based X-ray diffraction simulation code for arbitrary texture and arbitrary deformation. <i>Journal of Applied Crystallography</i> , 2021, 54, 686-696.	4.5	4
20	Impact-induced twinning and phase transition in a medium carbon steel. <i>Journal of Alloys and Compounds</i> , 2021, 881, 160421.	5.5	4
21	Origins of plastic shock waves in single-crystal Cu. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	4
22	Spin transition of ferropiclate under shock compression. <i>AIP Advances</i> , 2018, 8, 075028.	1.3	3
23	Resolving dynamic fragmentation of liquids at the nanoscale with ultrafast small-angle X-ray scattering. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1412-1421.	2.4	3
24	Deducing density and strength of nanocrystalline Ta and diamond under extreme conditions from X-ray diffraction. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 413-421.	2.4	3
25	Texture evolution in nanocrystalline Ta under shock compression. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	2
26	Deformation twinning to dislocation slip transition in single-crystal tantalum under dynamic compression. <i>Journal of Materials Science</i> , 2022, 57, 6026-6038.	3.7	0