Yang Cai

List of Publications by Year
in descending order

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26	289	840585 11	940416 16
papers	citations	h-index	g-index

26	26	26	259
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Shock response of single crystal and nanocrystalline pentaerythritol tetranitrate: Implications to hotspot formation in energetic materials. Journal of Chemical Physics, 2013, 139, 164704.	1.2	34
2	Cavitation in a metallic liquid: Homogeneous nucleation and growth of nanovoids. Journal of Chemical Physics, 2014, 140, 214317.	1.2	28
3	Spall strength of liquid copper and accuracy of the acoustic method. Journal of Applied Physics, 2017, 121, .	1.1	27
4	Grain boundary orientation effects on deformation of Ta bicrystal nanopillars under high strain-rate compression. Journal of Applied Physics, 2014, 115, .	1.1	21
5	Deformation and spallation of shock-loaded graphene: Effects of orientation and grain boundary. Carbon, 2018, 132, 520-528.	5.4	21
6	Second yield via dislocation-induced premelting in copper. Physical Review B, 2016, 93, .	1.1	20
7	Tensile Strength of Liquids: Equivalence of Temporal and Spatial Scales in Cavitation. Journal of Physical Chemistry Letters, 2016, 7, 806-810.	2.1	17
8	Homogeneous crystal nucleation in liquid copper under quasi-isentropic compression. Physical Review B, 2015, 92, .	1.1	16
9	A loading-dependent model of critical resolved shear stress. International Journal of Plasticity, 2018, 109, 1-17.	4.1	12
10	Spallation of polycarbonate under plate impact loading. Journal of Applied Physics, 2019, 126, .	1.1	12
11	Texture evolution in nanocrystalline Cu under shock compression. Journal of Applied Physics, 2020, 127, .	1.1	12
12	High-speed penetration dynamics of polycarbonate. International Journal of Mechanical Sciences, 2022, 223, 107250.	3.6	9
13	Texture of nanocrystalline solids: atomic scale characterization and applications. Journal of Applied Crystallography, 2018, 51, 124-132.	1.9	7
14	Acoustic and double elastic shock waves in single-crystal graphene. Journal of Applied Physics, 2020, 127, 055101.	1.1	7
15	Penetration dynamics of steel spheres into a ballistic gelatin: Experiments, nondimensional analysis, and finite element modeling. International Journal of Impact Engineering, 2022, 162, 104144.	2.4	7
16	Shock-induced twinning and texture in a mild carbon steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138832.	2.6	6
17	Compression and spallation properties of polyethylene terephthalate under plate impact loading. International Journal of Mechanical Sciences, 2021, 211, 106736.	3.6	6
18	ACAT: A GPU-accelerated parallel code for constructing ultralarge Atomic Configurations with Arbitrary Texture. Computational Materials Science, 2021, 186, 109997.	1.4	4

#	Article	IF	Citations
19	DATAD: a Python-based X-ray diffraction simulation code for arbitrary texture and arbitrary deformation. Journal of Applied Crystallography, 2021, 54, 686-696.	1.9	4
20	Impact-induced twinning and phase transition in a medium carbon steel. Journal of Alloys and Compounds, 2021, 881, 160421.	2.8	4
21	Origins of plastic shock waves in single-crystal Cu. Journal of Applied Physics, 2022, 131, .	1.1	4
22	Spin transition of ferropericlase under shock compression. AIP Advances, 2018, 8, 075028.	0.6	3
23	Resolving dynamic fragmentation of liquids at the nanoscale with ultrafast small-angle X-ray scattering. Journal of Synchrotron Radiation, 2019, 26, 1412-1421.	1.0	3
24	Deducing density and strength of nanocrystalline Ta and diamond under extreme conditions from X-ray diffraction. Journal of Synchrotron Radiation, 2019, 26, 413-421.	1.0	3
25	Texture evolution in nanocrystalline Ta under shock compression. Journal of Applied Physics, 2021, 129, .	1.1	2
26	Deformation twinning to dislocation slip transition in single-crystal tantalum under dynamic compression. Journal of Materials Science, 2022, 57, 6026-6038.	1.7	0