Meizhen Xiang

List of Publications by Year
in descending order

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28	655	567144 15	580701 25
papers	citations	h-index	g-index

28	28	28	322
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Shock responses of nanoporous aluminum by molecular dynamics simulations. International Journal of Plasticity, 2017, 97, 24-45.	4.1	78
2	Molecular dynamics studies of the roles of microstructure and thermal effects in spallation of aluminum. Mechanics of Materials, 2015, 84, 12-27.	1.7	59
3	Molecular dynamics simulations of micro-spallation of single crystal lead. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 055005.	0.8	56
4	Spalling and melting in nanocrystalline Pb under shock loading: Molecular dynamics studies. Journal of Applied Physics, 2013, 113, .	1.1	51
5	Shock response of nanoporous magnesium by molecular dynamics simulations. International Journal of Mechanical Sciences, 2018, 141, 143-156.	3.6	48
6	Shock-induced plasticity in semi-coherent {111} Cu-Ni multilayers. International Journal of Plasticity, 2018, 103, 23-38.	4.1	42
7	Molecular dynamics simulations on shock response and spalling behaviors of semi-coherent {111} Cu-Al multilayers. International Journal of Mechanical Sciences, 2020, 172, 105414.	3.6	35
8	Molecular dynamics studies on energy dissipation and void collapse in graded nanoporous nickel under shock compression. Mechanics of Materials, 2018, 126, 13-25.	1.7	31
9	Shock-induced plasticity and damage in single-crystalline Cu at elevated temperatures by molecular dynamics simulations. International Journal of Heat and Mass Transfer, 2020, 158, 120013.	2.5	31
10	Molecular dynamics study of the micro-spallation of single crystal tin. Computational Materials Science, 2014, 95, 89-98.	1.4	27
11	Phase transition of iron-based single crystals under ramp compressions with extreme strain rates. International Journal of Plasticity, 2017, 96, 56-80.	4.1	27
12	Molecular dynamics simulation of shock induced ejection on fused silica surface. Journal of Applied Physics, 2014, 115, 193508.	1.1	22
13	Spalling behaviors of Pb induced by ramp-wave-loading: Effects of the loading rise time studied by molecular dynamics simulations. Computational Materials Science, 2016, 117, 370-379.	1.4	19
14	Molecular dynamics studies of thermal dissipation during shock induced spalling. Journal of Applied Physics, 2013, 114, 123509.	1.1	18
15	Atom-continuum coupled model for thermo-mechanical behavior of materials in micro-nano scales. Science China: Physics, Mechanics and Astronomy, 2012, 55, 1125-1137.	2.0	17
16	A Study of the Shock Sensitivity of Energetic Single Crystals by Large-Scale Ab Initio Molecular Dynamics Simulations. Nanomaterials, 2019, 9, 1251.	1.9	15
17	Improved embedded-atom model potentials of Pb at high pressure: application to investigations of plasticity and phase transition under extreme conditions. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 015001.	0.8	15
18	Coupling of dynamic ductile damage and melting in shock-induced micro-spalling: Modeling and applications. International Journal of Plasticity, 2021, 136, 102849.	4.1	15

#	Article	IF	Citations
19	A strain gradient brittle fracture model based on two-scale asymptotic analysis. Journal of the Mechanics and Physics of Solids, 2022, 159, 104752.	2.3	9
20	Numerical simulation of ductile fracture based on mean field homogenization method: Modeling and implementation. Engineering Fracture Mechanics, 2016, 152, 147-161.	2.0	8
21	Anisotropic shock responses of nanoporous Al by molecular dynamics simulations. PLoS ONE, 2021, 16, e0247172.	1.1	8
22	Shock induced plasticity and phase transition in single crystal lead by molecular dynamics simulations. Journal of Applied Physics, 2019, 126, .	1.1	6
23	Theoretical investigations on melting/crystallization kinetics in overheated/overcooled aluminum at high pressures. Journal of Applied Physics, 2019, 126, .	1.1	6
24	Coupling of homogeneous and heterogeneous melting kinetics in overheated polycrystalline materials. Computational Materials Science, 2020, 173, 109421.	1.4	4
25	Heterogeneous melting kinetics in polycrystalline aluminum. PLoS ONE, 2020, 15, e0230028.	1.1	3
26	Spalling fracture of Ni/Al nanolaminates influenced by chemical reaction. Journal of Applied Physics, 2021, 130, .	1.1	3
27	Macroscopic damping model for structural dynamics with random polycrystalline configurations. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 493-506.	1.5	2
28	Dynamic Fracture Analysis of Natural Gas Pipelines Based on a Cohesive Zone Model. International Journal of Structural Stability and Dynamics, 0, , .	1.5	0