

Xiaoming Liu

List of Publications by Year in descending order

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Version: 2024-02-01

43
papers

757
citations

623574

14
h-index

552653

26
g-index

44
all docs

44
docs citations

44
times ranked

658
citing authors

#	ARTICLE	IF	CITATIONS
1	Grain size effect on the hardness of nanocrystal measured by the nanosize indenter. <i>Applied Surface Science</i> , 2013, 279, 159-166.	3.1	83
2	Modeling of dynamic crack branching by enhanced extended finite element method. <i>Computational Mechanics</i> , 2014, 54, 489-502.	2.2	66
3	A phase-field model of thermo-elastic coupled brittle fracture with explicit time integration. <i>Computational Mechanics</i> , 2020, 65, 1305-1321.	2.2	60
4	Statistical model of rough surface contact accounting for size-dependent plasticity and asperity interaction. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 106, 1-14.	2.3	59
5	A dislocation dynamics based higher-order crystal plasticity model and applications on confined thin-film plasticity. <i>International Journal of Plasticity</i> , 2011, 27, 201-216.	4.1	56
6	Strain gradient plasticity analysis of elasto-plastic contact between rough surfaces. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 96, 18-28.	2.3	39
7	Atomistic simulations of tensile deformation in a CrCoNi medium-entropy alloy with heterogeneous grain structures. <i>Materialia</i> , 2020, 9, 100565.	1.3	36
8	A thermo-elastic-plastic phase-field model for simulating the evolution and transition of adiabatic shear band. Part I. Theory and model calibration. <i>Engineering Fracture Mechanics</i> , 2020, 232, 107028.	2.0	35
9	Atypical three-stage-hardening mechanical behavior of Cu single-crystal micropillars. <i>Scripta Materialia</i> , 2009, 60, 594-597.	2.6	33
10	A thermo-elastic-plastic phase-field model for simulating the evolution and transition of adiabatic shear band. Part II. Dynamic collapse of thick-walled cylinder. <i>Engineering Fracture Mechanics</i> , 2020, 231, 107027.	2.0	25
11	Nanoscale Friction Behavior of the Ni-Film/Substrate System Under Scratching Using MD Simulation. <i>Tribology Letters</i> , 2012, 46, 167-178.	1.2	23
12	Finite element modelling of the instability in rapid fracture of graphene. <i>Engineering Fracture Mechanics</i> , 2015, 141, 111-119.	2.0	19
13	Multiscale study of the dynamic friction coefficient due to asperity plowing. <i>Friction</i> , 2021, 9, 822-839.	3.4	19
14	Response of an infinite beam resting on the tensionless Winkler foundation subjected to an axial and a transverse concentrated loads. <i>European Journal of Mechanics, A/Solids</i> , 2019, 77, 103819.	2.1	15
15	Predicting the flow stress and dominant yielding mechanisms: analytical models based on discrete dislocation plasticity. <i>Scientific Reports</i> , 2019, 9, 20422.	1.6	15
16	Investigation of grain boundary and orientation effects in polycrystalline metals by a dislocation-based crystal plasticity model. <i>Computational Materials Science</i> , 2019, 159, 86-94.	1.4	15
17	Breakdown of Archard law due to transition of wear mechanism from plasticity to fracture. <i>Tribology International</i> , 2022, 173, 107660.	3.0	14
18	Effect of plasticity on dynamic impact in a journal-bearing system: A planar case. <i>Mechanism and Machine Theory</i> , 2020, 154, 104034.	2.7	13

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19	Discrete Greenwood-Williamson Modeling of Rough Surface Contact Accounting for Three-Dimensional Sinusoidal Asperities and Asperity Interaction. <i>Journal of Tribology</i> , 2019, 141, .	1.0	12
20	Ploughing friction and nanohardness dependent on the tip tilt in nano-scratch test for single crystal gold. <i>Computational Materials Science</i> , 2015, 110, 54-61.	1.4	11
21	Response of an infinite beam on a bilinear elastic foundation: Bridging the gap between the Winkler and tensionless foundation models. <i>European Journal of Mechanics, A/Solids</i> , 2018, 71, 394-403.	2.1	11
22	Interference effect on friction behavior of asperities on single crystal copper. <i>Tribology International</i> , 2015, 81, 169-178.	3.0	9
23	An elasto-plastic contact model for conformal contacts between cylinders. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2020, 234, 1837-1845.	1.0	9
24	Effect of plasticity and adhesion on the stick-slip transition at nanoscale friction. <i>Tribology International</i> , 2021, 164, 107230.	3.0	9
25	The study of grain boundary density effect on multi-grain thin film under tension. <i>Computational Materials Science</i> , 2012, 53, 175-186.	1.4	7
26	Yielding behavior of copper nanowire in the presence of vacancies. <i>Science China: Physics, Mechanics and Astronomy</i> , 2012, 55, 1010-1017.	2.0	7
27	The effects of initial void and dislocation on the onset of plasticity in copper single crystals. <i>Journal of Applied Physics</i> , 2019, 126, 165104.	1.1	7
28	Experimental Studies on Strengthening and Failure Mechanism for the Metal/Silicone Rubber/Metal Bonding System. <i>International Journal of Applied Mechanics</i> , 2018, 10, 1850029.	1.3	6
29	Effect of plasticity on nanoscale wear of third-body particles. <i>Tribology International</i> , 2021, 155, 106739.	3.0	6
30	Bauschinger and size effects in thin-film plasticity due to defect-energy of geometrical necessary dislocations. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2011, 27, 266-276.	1.5	5
31	Plastic Effect on the Sliding Inception Between a Cylinder and a Rigid Flat. <i>Acta Mechanica Solida Sinica</i> , 2019, 32, 1-16.	1.0	5
32	Semi-analytical model of the vertical impact of a 316 stainless steel rod. <i>International Journal of Impact Engineering</i> , 2020, 146, 103694.	2.4	4
33	Wedge indentation of a thin film on a substrate based on micromorphic plasticity. <i>Acta Mechanica</i> , 2011, 221, 133-145.	1.1	3
34	Full-scale finite element analysis of deformation and contact of a wire-wrapped fuel bundle subject to realistic thermal and irradiation conditions. <i>Nuclear Engineering and Design</i> , 2020, 364, 110676.	0.8	3
35	Effect of plasticity on the coefficient of restitution of an elastoplastic sphere impacting an elastic plate. <i>International Journal of Solids and Structures</i> , 2021, 222-223, 111036.	1.3	3
36	Revisiting the interaction of highly nonlinear solitary wave with wall: From infinite to finite thickness. <i>International Journal of Solids and Structures</i> , 2022, 241, 111509.	1.3	3

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37	A numerical study on dynamic shear rupture along frictional faults. International Journal of Damage Mechanics, 2016, 25, 69-86.	2.4	2
38	Influences of Morphology Parameters on the Contact Behavior of a Steel Interface. International Journal of Applied Mechanics, 2020, 12, 2050009.	1.3	2
39	Dynamic Impact of High-Density Aluminum Foam. Acta Mechanica Solida Sinica, 2022, 35, 198-214.	1.0	2
40	Effect of tool size on the cutting of aluminum film with micrometer-level thickness. International Journal of Solids and Structures, 2022, 241, 111514.	1.3	2
41	Boundary effect on the dynamic response of a 7-hexagon fuel ducts submerged in fluid. Nuclear Engineering and Design, 2020, 370, 110870.	0.8	1
42	Nanoindentation Size Effect Interpreted by the Dislocation Nucleation Mechanism. Journal of Computational and Theoretical Nanoscience, 2013, 10, 714-718.	0.4	0
43	Frictional Detachment Between Slender Whisker and Round Obstacle. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	1.1	0