Mao Liu

List of Publications by Year
in descending order

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33 papers	561 citations	623188 14 h-index	642321 23 g-index
34 all docs	34 docs citations	34 times ranked	666 citing authors

#	Article	IF	Citations
1	Deformation-activated recrystallization twin: New twinning path in pure aluminum enabled by cryogenic and rapid compression. IScience, 2022, 25, 104248.	1.9	1
2	Investigation of work hardening behavior in multilayered steels architected by twinning induced plasticity steel and martensitic steel during uniaxial tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 811, 140996.	2.6	3
3	Molecular dynamics simulation and machine learning of mechanical response in non-equiatomic FeCrNiCoMn high-entropy alloy. Journal of Materials Research and Technology, 2021, 13, 2043-2054.	2.6	32
4	Mechanical response and plastic deformation of coherent twin boundary with perfect and defective structures. Mechanics of Materials, 2020, 141, 103266.	1.7	10
5	Study of deformation behaviors of martensitic steel quenched at ultralow temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 785, 139399.	2.6	2
6	On the Influence of Grain Boundary Misorientation on the Severe Plastic Deformation of Aluminum Bicrystals: A Three-Dimensional Crystal Plasticity Finite Element Method Study. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 2399-2412.	1.1	4
7	Grain boundary induced deformation mechanisms in nanocrystalline Al by molecular dynamics simulation: From interatomic potential perspective. Computational Materials Science, 2019, 156, 421-433.	1.4	42
8	Three-dimensional quantification of texture heterogeneity in single-crystal aluminium subjected to equal channel angular pressing. Philosophical Magazine, 2017, 97, 799-819.	0.7	5
9	Modification of the contact surfaces for improving the puncture resistance of laminar structures. Scientific Reports, 2017, 7, 6615.	1.6	3
10	Microstructures and mechanical properties of Al-Li 2198-T8 alloys processed by two different severe plastic deformation methods: A comparative study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 681, 65-73.	2.6	41
11	Progress in Indentation Study of Materials via Both Experimental and Numerical Methods. Crystals, 2017, 7, 258.	1.0	30
12	Effect of Cd-phosphonate complex on the self-assembly structure of colloidal nanorods. Materials Letters, 2016, 180, 85-88.	1.3	14
13	A combined experimental and modelling study of indentation damage test on thin-film stacked structures. Thin Solid Films, 2016, 615, 74-83.	0.8	8
14	Investigation of the size effect for photonic crystals. Nanotechnology, 2016, 27, 405703.	1.3	7
15	Enhanced rare earth photoluminescence in inverse opal photonic crystals and its application for pH sensing. Nanotechnology, 2016, 27, 405202.	1.3	9
16	Investigation of the Anisotropic Mechanical Behaviors of Copper Single Crystals Through Nanoindentation Modeling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2717-2725.	1.1	6
17	Indentation analysis of mechanical behaviour of torsion-processed single-crystal copper by crystal plasticity finite-element method modelling. Philosophical Magazine, 2016, 96, 261-273.	0.7	7
18	Controlled size and morphology, and phase transition of YF₃:Yb³⁺,Er³⁺ and YOF:Yb³⁺,Er³⁺ nanocrystals for fine color tuning. Journal of Materials Chemistry C, 2016, 4, 331-339.	2.7	37

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19	Crystal plasticity FEM study of nanoindentation behaviors of Cu bicrystals and Cuâ€“Al bicrystals. Journal of Materials Research, 2015, 30, 2485-2499.	1.2	14
20	Indentation damage evaluation on metal-coated thin-films stacked structure. Journal of Materials Research, 2015, 30, 3071-3083.	1.2	9
21	A combined experimental-numerical approach for determining mechanical properties of aluminum subjects to nanoindentation. Scientific Reports, 2015, 5, 15072.	1.6	43
22	A new insight into ductile fracture of ultrafine-grained Al-Mg alloys. Scientific Reports, 2015, 5, 9568.	1.6	24
23	The Determination of Self Hardening Parameters of Twinning Induced Plasticity Steel via Crystal Plasticity Modeling. Journal of Computational and Theoretical Nanoscience, 2015, 12, 2523-2530.	0.4	2
24	Explore the anisotropic indentation pile-up patterns of single-crystal coppers by crystal plasticity finite element modelling. Materials Letters, 2015, 161, 227-230.	1.3	13
25	Observation of upconversion white light and ultrabroad infrared emission in YbAG:Ln³⁺ (Ln = Nd, Sm, Tb, Er). Applied Physics Express, 2015, 8, 072602.	1.1	21
26	Crystal plasticity finite element method modelling of indentation size effect. International Journal of Solids and Structures, 2015, 54, 42-49.	1.3	31
27	A crystal plasticity study of the effect of friction on the evolution of texture and mechanical behaviour in the nano-indentation of an aluminium single crystal. Computational Materials Science, 2014, 81, 30-38.	1.4	19
28	Influence of outer corner angle (OCA) on the plastic deformation and texture evolution in equal channel angular pressing. Computational Materials Science, 2014, 81, 79-88.	1.4	20
29	Numerical comparison between Berkovich and conical nano-indentations: Mechanical behaviour and micro-texture evolution. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 619, 57-65.	2.6	26
30	Influence of cold rolling reduction on the deformation behaviour and crystallographic orientation development. Computational Materials Science, 2014, 81, 2-9.	1.4	30
31	Fabrication of ultra-thin nanostructured bimetallic foils by Accumulative Roll Bonding and Asymmetric Rolling. Scientific Reports, 2013, 3, 2373.	1.6	40
32	Crystal Plasticity Study of the Effect of the Initial Orientation on the Indentation Surface Profile Patterns and Microâ€<scp>T</scp>extures of Aluminum Single Crystal. Steel Research International, 2013, 84, 1196-1202.	1.0	3
33	On the Influence of Mesh Size during Finite Element Simulation of Equal Channel Angular Pressing. Materials Science Forum, 0, 773-774, 160-165.	0.3	0