

Linli Zhu

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74
papers

1,619
citations

20
h-index

38
g-index

80
ext. papers

1,931
ext. citations

5.2
avg, IF

5.13
L-index

#	Paper	IF	Citations
74	Dual-phase nanostructuring as a route to high-strength magnesium alloys. <i>Nature</i> , 2017 , 545, 80-83	50.4	308
73	Modeling grain size dependent optimal twin spacing for achieving ultimate high strength and related high ductility in nanotwinned metals. <i>Acta Materialia</i> , 2011 , 59, 5544-5557	8.4	159
72	Modelling the plastic deformation of nanostructured metals with bimodal grain size distribution. <i>International Journal of Plasticity</i> , 2012 , 30-31, 166-184	7.6	122
71	Microstructures-based constitutive analysis for mechanical properties of gradient-nanostructured 304 stainless steels. <i>Acta Materialia</i> , 2017 , 128, 375-390	8.4	60
70	Analysis of the twin spacing and grain size effects on mechanical properties in hierarchically nanotwinned face-centered cubic metals based on a mechanism-based plasticity model. <i>Journal of the Mechanics and Physics of Solids</i> , 2015 , 76, 162-179	5	59
69	High-pressure strengthening in ultrafine-grained metals. <i>Nature</i> , 2020 , 579, 67-72	50.4	52
68	High-order hierarchical nanotwins with superior strength and ductility. <i>Acta Materialia</i> , 2018 , 149, 397-406	8.4	45
67	A statistical model for predicting the mechanical properties of nanostructured metals with bimodal grain size distribution. <i>Acta Materialia</i> , 2012 , 60, 5762-5772	8.4	42
66	Impact of grain sizes on phonon thermal conductivity of bulk thermoelectric materials. <i>Applied Physics Letters</i> , 2005 , 87, 242101	3.4	39
65	Micromechanical simulation of fracture behavior of bimodal nanostructured metals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 618, 479-489	5.3	38
64	Impact of grain size on the Seebeck coefficient of bulk polycrystalline thermoelectric materials. <i>Science Bulletin</i> , 2010 , 55, 16-21		38
63	On the role of hierarchical twins for achieving maximum yield strength in nanotwinned metals. <i>Applied Physics Letters</i> , 2012 , 101, 081906	3.4	35
62	Nature-Inspired Hierarchical Steels. <i>Scientific Reports</i> , 2018 , 8, 5088	4.9	30
61	Magnetic graphene oxide as adsorbent for the determination of polycyclic aromatic hydrocarbon metabolites in human urine. <i>Journal of Separation Science</i> , 2014 , 37, 2591-8	3.4	27
60	High strength and high ductility copper obtained by topologically controlled planar heterogeneous structures. <i>Scripta Materialia</i> , 2016 , 124, 103-107	5.6	26
59	Influence of interface energy and grain boundary on the elastic modulus of nanocrystalline materials. <i>Acta Mechanica</i> , 2010 , 213, 223-234	2.1	25
58	Theory of designing the gradient microstructured metals for overcoming strength-ductility trade-off. <i>Scripta Materialia</i> , 2020 , 184, 41-45	5.6	24

57	Simulation of ballistic performance of a two-layered structure of nanostructured metal and ceramic. <i>Composite Structures</i> , 2016 , 157, 163-173	5.3	23
56	Bifunctional magnetic nanoparticles for analysis of aldehyde metabolites in exhaled breath of lung cancer patients. <i>Journal of Chromatography A</i> , 2014 , 1324, 29-35	4.5	20
55	Mesh dependence of transverse cracking in laminated metals with nanograined interface layers. <i>Engineering Fracture Mechanics</i> , 2013 , 105, 211-220	4.2	20
54	Static and dynamic mechanical behaviors of gradient-nanotwinned stainless steel with a composite structure: Experiments and modeling. <i>International Journal of Plasticity</i> , 2019 , 114, 272-288	7.6	20
53	Theoretical analysis of electric field effect on Young's modulus of nanowires. <i>Applied Physics Letters</i> , 2006 , 89, 153110	3.4	19
52	Numerical simulation of ballistic performance of bimodal nanostructured metals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 630, 13-26	5.3	18
51	Numerical investigation of fracture behavior of nanostructured Cu with bimodal grain size distribution. <i>Acta Mechanica</i> , 2014 , 225, 1093-1106	2.1	18
50	Computer simulation of strength and ductility of nanotwin-strengthened coarse-grained metals. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014 , 22, 075014	2	18
49	Simulation of ballistic performance of coarse-grained metals strengthened by nanotwinned regions. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2015 , 23, 085009	2	18
48	The direct and indirect effects of nanotwin volume fraction on the strength and ductility of coarse-grained metals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 657, 234-243	5.3	18
47	Modification of the phonon thermal conductivity in spatially confined semiconductor nanofilms under stress fields. <i>Europhysics Letters</i> , 2009 , 88, 36003	1.6	17
46	Two softening stages in nanotwinned Cu. <i>Philosophical Magazine</i> , 2014 , 94, 4037-4052	1.6	16
45	Scale law of complex deformation transitions of nanotwins in stainless steel. <i>Nature Communications</i> , 2019 , 10, 1403	17.4	15
44	Effect of grain sizes and shapes on phonon thermal conductivity of bulk thermoelectric materials. <i>Journal of Applied Physics</i> , 2011 , 110, 024312	2.5	15
43	Prediction of mechanical properties in bimodal nanotwinned metals with a composite structure. <i>Composites Science and Technology</i> , 2016 , 123, 222-231	8.6	15
42	Grain Size Effect on Electrical Conductivity and Giant Magnetoresistance of Bulk Magnetic Polycrystals. <i>Chinese Physics Letters</i> , 2009 , 26, 117502	1.8	13
41	Influence of Prestress Fields on the Phonon Thermal Conductivity of GaN Nanostructures. <i>Journal of Heat Transfer</i> , 2014 , 136,	1.8	12
40	Size-dependent formation and thermal stability of high-order twins in hierarchical nanotwinned metals. <i>International Journal of Plasticity</i> , 2020 , 128, 102685	7.6	12

39	A study of dynamic plasticity in austenite stainless steels with a gradient distribution of nanoscale twins. <i>Scripta Materialia</i> , 2017 , 133, 49-53	5.6	10
38	Molecular dynamics simulation of the elastic properties of metal nanowires in a transverse electric field. <i>Nanotechnology</i> , 2007 , 18, 385703	3.4	10
37	On the role of piezoelectricity in phonon properties and thermal conductivity of GaN nanofilms. <i>Theoretical and Applied Mechanics Letters</i> , 2016 , 6, 277-281	1.8	10
36	Bio-Inspired High Sensitivity of Moisture-Mechanical GO Films with Period-Gradient Structures. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 33104-33112	9.5	9
35	Micromechanical modeling for mechanical properties of gradient-nanotwinned metals with a composite microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 703, 180-186	5.3	9
34	Modification of the elastic properties of nanostructures with surface charges in applied electric fields. <i>European Journal of Mechanics, A/Solids</i> , 2010 , 29, 337-347	3.7	9
33	Simulating Size and Volume Fraction-Dependent Strength and Ductility of Nanotwinned Composite Copper. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2016 , 83,	2.7	9
32	Transverse surface mechanical behavior and modified elastic modulus for charged nanostructures. <i>Europhysics Letters</i> , 2008 , 83, 66007	1.6	8
31	Phonon properties and thermal conductivity of GaN nanofilm under prestress and surface/interface stress. <i>Journal of Alloys and Compounds</i> , 2016 , 685, 619-625	5.7	7
30	Light-weight isometric-phase steels with superior strength-hardness-ductility combination. <i>Scripta Materialia</i> , 2018 , 154, 230-235	5.6	7
29	Effects of surface/interface stress on phonon properties and thermal conductivity in AlN/GaN/AlN heterostructural nanofilms. <i>Applied Physics A: Materials Science and Processing</i> , 2019 , 125, 1	2.6	6
28	Modeling phonon thermal conductivity in spatially confined GaN nanofilms under stress fields and phonon surface scattering. <i>AIP Advances</i> , 2019 , 9, 015024	1.5	6
27	Effects of Surface Stress on the Phonon Properties in GaN Nanofilms. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015 , 82,	2.7	6
26	Effects of pre-stress and surface stress on phonon thermal conductivity of rectangular Si nanowires. <i>Applied Physics A: Materials Science and Processing</i> , 2015 , 119, 253-263	2.6	6
25	Effect of quantum transport on the resistivity of metal nanocrystalline materials in an electric field. <i>Applied Physics Letters</i> , 2007 , 91, 103108	3.4	6
24	Effects of heterogeneity and prestress field on phonon properties of semiconductor nanofilms. <i>Computational Materials Science</i> , 2018 , 145, 14-23	3.2	5
23	Surface Stress Effects on the Yield Strength in Nanotwinned Polycrystal Face-Centered-Cubic Metallic Nanowires. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014 , 81,	2.7	5
22	A Theory for Electromagnetic Heat Conduction and a Numerical Model Based on Boltzmann Equation. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2006 , 7,	1.8	5

21	Tensile Failure Modes in Nanograined Metals with Nanotwinned Regions. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 5001-5014	2.3	5
20	Microstructure-Property Relations in the Tensile Behavior of Bimodal Nanostructured Metals. <i>Advanced Engineering Materials</i> , 2020 , 22, 2000097	3.5	4
19	The limit velocity and limit displacement of nanotwin-strengthened metals under ballistic impact. <i>Acta Mechanica</i> , 2018 , 229, 1741-1757	2.1	4
18	Grain Rotation in Plastic Deformation. <i>Quantum Beam Science</i> , 2019 , 3, 17	1.6	4
17	Multi-field coupling behavior of simply-supported conductive plate under the condition of a transverse strong impulsive magnetic field. <i>Acta Mechanica Solida Sinica</i> , 2006 , 19, 203-211	2	4
16	Simulating stress-tunable phonon and thermal properties in heterostructured AlN/GaN/AlN-nanofilms. <i>Materials Research Express</i> , 2019 , 6, 015018	1.7	4
15	Influence of surface scattering on the thermal properties of spatially confined GaN nanofilm. <i>Chinese Physics B</i> , 2016 , 25, 086502	1.2	3
14	Anomalous sudden drop of temperature-dependent Young's modulus of a plastically deformed duplex stainless steel. <i>Materials and Design</i> , 2019 , 181, 108071	8.1	3
13	Micromechanical simulation on strength and ductility of two kinds of Al-based nanostructural materials. <i>Acta Mechanica Solida Sinica</i> , 2017 , 30, 404-415	2	3
12	Near-ideal strength and large compressive deformability of a nano-dual-phase glass-crystal alloy in sub-micron. <i>Scripta Materialia</i> , 2020 , 188, 290-295	5.6	3
11	Constitutive modeling of size-dependent deformation behavior in nano-dual-phase glass-crystal alloys. <i>International Journal of Plasticity</i> , 2021 , 137, 102918	7.6	3
10	Effects of surface charges on phonon properties and thermal conductivity in GaN nanofilms. <i>Chinese Physics B</i> , 2019 , 28, 086501	1.2	2
9	Grain growth-induced strain softening in nanocrystalline magnesium: experiments and modelling. <i>Materials Research Express</i> , 2019 , 6, 108002	1.7	2
8	Electron-phonon interaction and mobility in stressed rectangular silicon nanowires. <i>Chinese Physics B</i> , 2015 , 24, 016201	1.2	2
7	Data-Driven Design of Nanopore Graphene for Water Desalination. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 27685-27692	3.8	2
6	Achieving high strength and high ductility in nanostructured metals: Experiment and modelling. <i>Theoretical and Applied Mechanics Letters</i> , 2012 , 2, 021001	1.8	1
5	Theoretical insight of strengthening and hardening behavior in ultrafine-grained metals under high pressure. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021 , 414, 127638	2.3	1
4	Effect of Stress-Dependent Thermal Conductivity on Thermo-Mechanical Coupling Behavior in GaN-Based Nanofilm Under Pulse Heat Source. <i>Acta Mechanica Solida Sinica</i> , 2021 , 34, 27-39	2	0

- 3 Modeling the strain rate-dependent constitutive behavior in nanotwinned polycrystalline metals. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2020**, 384, 126206 2.3
- 2 Electromagnetic-Thermo-Mechanical Coupling Behavior of Cu/Si Layered Thin Plate Under Pulsed Magnetic Field. *Acta Mechanica Sinica*, 1 2
- 1 Numerical and experimental comparison of two nano-structuring processing techniques on making stronger stainless steels. *Materials Today Communications*, **2020**, 24, 100419 2.5