

# Linli Zhu

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/4874970/linli-zhu-publications-by-year.pdf>

**Version:** 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	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> , <b>2021</b> , 34, 27-39	2	0
73	Constitutive modeling of size-dependent deformation behavior in nano-dual-phase glass-crystal alloys. <i>International Journal of Plasticity</i> , <b>2021</b> , 137, 102918	7.6	3
72	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> , <b>2021</b> , 414, 127638	2.3	1
71	Data-Driven Design of Nanopore Graphene for Water Desalination. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 27685-27692	3.8	2
70	Microstructure-Property Relations in the Tensile Behavior of Bimodal Nanostructured Metals. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2000097	3.5	4
69	Bio-Inspired High Sensitivity of Moisture-Mechanical GO Films with Period-Gradient Structures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 33104-33112	9.5	9
68	High-pressure strengthening in ultrafine-grained metals. <i>Nature</i> , <b>2020</b> , 579, 67-72	50.4	52
67	Modeling the strain rate-dependent constitutive behavior in nanotwinned polycrystalline metals. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2020</b> , 384, 126206	2.3	
66	Size-dependent formation and thermal stability of high-order twins in hierarchical nanotwinned metals. <i>International Journal of Plasticity</i> , <b>2020</b> , 128, 102685	7.6	12
65	Near-ideal strength and large compressive deformability of a nano-dual-phase glass-crystal alloy in sub-micron. <i>Scripta Materialia</i> , <b>2020</b> , 188, 290-295	5.6	3
64	Numerical and experimental comparison of two nano-structuring processing techniques on making stronger stainless steels. <i>Materials Today Communications</i> , <b>2020</b> , 24, 100419	2.5	
63	Theory of designing the gradient microstructured metals for overcoming strength-ductility trade-off. <i>Scripta Materialia</i> , <b>2020</b> , 184, 41-45	5.6	24
62	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> , <b>2019</b> , 125, 1	2.6	6
61	Modeling phonon thermal conductivity in spatially confined GaN nanofilms under stress fields and phonon surface scattering. <i>AIP Advances</i> , <b>2019</b> , 9, 015024	1.5	6
60	Scale law of complex deformation transitions of nanotwins in stainless steel. <i>Nature Communications</i> , <b>2019</b> , 10, 1403	17.4	15
59	Effects of surface charges on phonon properties and thermal conductivity in GaN nanofilms. <i>Chinese Physics B</i> , <b>2019</b> , 28, 086501	1.2	2
58	Anomalous sudden drop of temperature-dependent Young's modulus of a plastically deformed duplex stainless steel. <i>Materials and Design</i> , <b>2019</b> , 181, 108071	8.1	3

57	Grain Rotation in Plastic Deformation. <i>Quantum Beam Science</i> , <b>2019</b> , 3, 17	1.6	4
56	Grain growth-induced strain softening in nanocrystalline magnesium: experiments and modelling. <i>Materials Research Express</i> , <b>2019</b> , 6, 108002	1.7	2
55	Static and dynamic mechanical behaviors of gradient-nanotwinned stainless steel with a composite structure: Experiments and modeling. <i>International Journal of Plasticity</i> , <b>2019</b> , 114, 272-288	7.6	20
54	Simulating stress-tunable phonon and thermal properties in heterostructured AlN/GaN/AlN-nanofilms. <i>Materials Research Express</i> , <b>2019</b> , 6, 015018	1.7	4
53	High-order hierarchical nanotwins with superior strength and ductility. <i>Acta Materialia</i> , <b>2018</b> , 149, 397-406	4.4	45
52	Effects of heterogeneity and prestress field on phonon properties of semiconductor nanofilms. <i>Computational Materials Science</i> , <b>2018</b> , 145, 14-23	3.2	5
51	Nature-Inspired Hierarchical Steels. <i>Scientific Reports</i> , <b>2018</b> , 8, 5088	4.9	30
50	The limit velocity and limit displacement of nanotwin-strengthened metals under ballistic impact. <i>Acta Mechanica</i> , <b>2018</b> , 229, 1741-1757	2.1	4
49	Light-weight isometric-phase steels with superior strength-hardness-ductility combination. <i>Scripta Materialia</i> , <b>2018</b> , 154, 230-235	5.6	7
48	Tensile Failure Modes in Nanograined Metals with Nanotwinned Regions. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2018</b> , 49, 5001-5014	2.3	5
47	Microstructures-based constitutive analysis for mechanical properties of gradient-nanostructured 304 stainless steels. <i>Acta Materialia</i> , <b>2017</b> , 128, 375-390	8.4	60
46	A study of dynamic plasticity in austenite stainless steels with a gradient distribution of nanoscale twins. <i>Scripta Materialia</i> , <b>2017</b> , 133, 49-53	5.6	10
45	Dual-phase nanostructuring as a route to high-strength magnesium alloys. <i>Nature</i> , <b>2017</b> , 545, 80-83	50.4	308
44	Micromechanical modeling for mechanical properties of gradient-nanotwinned metals with a composite microstructure. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 703, 180-186	5.3	9
43	Micromechanical simulation on strength and ductility of two kinds of Al-based nanostructural materials. <i>Acta Mechanica Solida Sinica</i> , <b>2017</b> , 30, 404-415	2	3
42	Simulation of ballistic performance of a two-layered structure of nanostructured metal and ceramic. <i>Composite Structures</i> , <b>2016</b> , 157, 163-173	5.3	23
41	Influence of surface scattering on the thermal properties of spatially confined GaN nanofilm. <i>Chinese Physics B</i> , <b>2016</b> , 25, 086502	1.2	3
40	High strength and high ductility copper obtained by topologically controlled planar heterogeneous structures. <i>Scripta Materialia</i> , <b>2016</b> , 124, 103-107	5.6	26

39	Phonon properties and thermal conductivity of GaN nanofilm under prestress and surface/interface stress. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 685, 619-625	5.7	7
38	Simulating Size and Volume Fraction-Dependent Strength and Ductility of Nanotwinned Composite Copper. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2016</b> , 83,	2.7	9
37	On the role of piezoelectricity in phonon properties and thermal conductivity of GaN nanofilms. <i>Theoretical and Applied Mechanics Letters</i> , <b>2016</b> , 6, 277-281	1.8	10
36	Prediction of mechanical properties in bimodal nanotwinned metals with a composite structure. <i>Composites Science and Technology</i> , <b>2016</b> , 123, 222-231	8.6	15
35	The direct and indirect effects of nanotwin volume fraction on the strength and ductility of coarse-grained metals. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 657, 234-243	5.3	18
34	Numerical simulation of ballistic performance of bimodal nanostructured metals. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 630, 13-26	5.3	18
33	Simulation of ballistic performance of coarse-grained metals strengthened by nanotwinned regions. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2015</b> , 23, 085009	2	18
32	Effects of Surface Stress on the Phonon Properties in GaN Nanofilms. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2015</b> , 82,	2.7	6
31	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> , <b>2015</b> , 76, 162-179	5	59
30	Effects of pre-stress and surface stress on phonon thermal conductivity of rectangular Si nanowires. <i>Applied Physics A: Materials Science and Processing</i> , <b>2015</b> , 119, 253-263	2.6	6
29	Electron-acoustic phonon interaction and mobility in stressed rectangular silicon nanowires. <i>Chinese Physics B</i> , <b>2015</b> , 24, 016201	1.2	2
28	Numerical investigation of fracture behavior of nanostructured Cu with bimodal grain size distribution. <i>Acta Mechanica</i> , <b>2014</b> , 225, 1093-1106	2.1	18
27	Bifunctional magnetic nanoparticles for analysis of aldehyde metabolites in exhaled breath of lung cancer patients. <i>Journal of Chromatography A</i> , <b>2014</b> , 1324, 29-35	4.5	20
26	Magnetic graphene oxide as adsorbent for the determination of polycyclic aromatic hydrocarbon metabolites in human urine. <i>Journal of Separation Science</i> , <b>2014</b> , 37, 2591-8	3.4	27
25	Micromechanical simulation of fracture behavior of bimodal nanostructured metals. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 618, 479-489	5.3	38
24	Computer simulation of strength and ductility of nanotwin-strengthened coarse-grained metals. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2014</b> , 22, 075014	2	18
23	Surface Stress Effects on the Yield Strength in Nanotwinned Polycrystal Face-Centered-Cubic Metallic Nanowires. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2014</b> , 81,	2.7	5
22	Influence of Prestress Fields on the Phonon Thermal Conductivity of GaN Nanostructures. <i>Journal of Heat Transfer</i> , <b>2014</b> , 136,	1.8	12

21	Two softening stages in nanotwinned Cu. <i>Philosophical Magazine</i> , <b>2014</b> , 94, 4037-4052	1.6	16
20	Mesh dependence of transverse cracking in laminated metals with nanograined interface layers. <i>Engineering Fracture Mechanics</i> , <b>2013</b> , 105, 211-220	4.2	20
19	Modelling the plastic deformation of nanostructured metals with bimodal grain size distribution. <i>International Journal of Plasticity</i> , <b>2012</b> , 30-31, 166-184	7.6	122
18	A statistical model for predicting the mechanical properties of nanostructured metals with bimodal grain size distribution. <i>Acta Materialia</i> , <b>2012</b> , 60, 5762-5772	8.4	42
17	Achieving high strength and high ductility in nanostructured metals: Experiment and modelling. <i>Theoretical and Applied Mechanics Letters</i> , <b>2012</b> , 2, 021001	1.8	1
16	On the role of hierarchical twins for achieving maximum yield strength in nanotwinned metals. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 081906	3.4	35
15	Effect of grain sizes and shapes on phonon thermal conductivity of bulk thermoelectric materials. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 024312	2.5	15
14	Modeling grain size dependent optimal twin spacing for achieving ultimate high strength and related high ductility in nanotwinned metals. <i>Acta Materialia</i> , <b>2011</b> , 59, 5544-5557	8.4	159
13	Influence of interface energy and grain boundary on the elastic modulus of nanocrystalline materials. <i>Acta Mechanica</i> , <b>2010</b> , 213, 223-234	2.1	25
12	Impact of grain size on the Seebeck coefficient of bulk polycrystalline thermoelectric materials. <i>Science Bulletin</i> , <b>2010</b> , 55, 16-21		38
11	Modification of the elastic properties of nanostructures with surface charges in applied electric fields. <i>European Journal of Mechanics, A/Solids</i> , <b>2010</b> , 29, 337-347	3.7	9
10	Modification of the phonon thermal conductivity in spatially confined semiconductor nanofilms under stress fields. <i>Europhysics Letters</i> , <b>2009</b> , 88, 36003	1.6	17
9	Grain Size Effect on Electrical Conductivity and Giant Magnetoresistance of Bulk Magnetic Polycrystals. <i>Chinese Physics Letters</i> , <b>2009</b> , 26, 117502	1.8	13
8	Transverse surface mechanical behavior and modified elastic modulus for charged nanostructures. <i>Europhysics Letters</i> , <b>2008</b> , 83, 66007	1.6	8
7	Molecular dynamics simulation of the elastic properties of metal nanowires in a transverse electric field. <i>Nanotechnology</i> , <b>2007</b> , 18, 385703	3.4	10
6	Effect of quantum transport on the resistivity of metal nanocrystalline materials in an electric field. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 103108	3.4	6
5	A Theory for Electromagnetic Heat Conduction and a Numerical Model Based on Boltzmann Equation. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , <b>2006</b> , 7,	1.8	5
4	Theoretical analysis of electric field effect on Young's modulus of nanowires. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 153110	3.4	19

3	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> , <b>2006</b> , 19, 203-211	2	4
2	Impact of grain sizes on phonon thermal conductivity of bulk thermoelectric materials. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 242101	3-4	39
1	Electromagnetic-Thermo-Mechanical Coupling Behavior of Cu/Si Layered Thin Plate Under Pulsed Magnetic Field. <i>Acta Mechanica Solida Sinica</i> , 1	2	