

# Xiang Guo

## List of Publications by Year in Descending Order

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

51  
papers

804  
citations

18  
h-index

26  
g-index

52  
ext. papers

902  
ext. citations

4  
avg, IF

4.27  
L-index

#	Paper	IF	Citations
51	Tuning the strength-ductility synergy of nanograined Cu through nanotwin volume fraction. <i>Computational Materials Science</i> , <b>2022</b> , 203, 111073	3.2	0
50	Simulation of ductile fracture of zirconium alloys based on triaxiality dependent cohesive zone model. <i>Acta Mechanica</i> , <b>2021</b> , 232, 3723-3736	2.1	0
49	Biaxial fatigue crack growth in proton exchange membrane of fuel cells based on cyclic cohesive finite element method. <i>International Journal of Mechanical Sciences</i> , <b>2021</b> , 189, 105946	5.5	3
48	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
47	Microstructure-Property Relations in the Tensile Behavior of Bimodal Nanostructured Metals. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2000097	3.5	4
46	Fatigue crack propagation behavior of fuel cell membranes after chemical degradation. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 27653-27664	6.7	14
45	Effect of surface mechanical attrition treatment on corrosion fatigue behavior of AZ31B magnesium alloy. <i>International Journal of Fatigue</i> , <b>2019</b> , 127, 461-469	5	22
44	Effect of hydride precipitation on the fatigue cracking behavior in a zirconium alloy cladding tube. <i>International Journal of Fatigue</i> , <b>2019</b> , 129, 105230	5	6
43	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
42	Axial-torsional high-cycle fatigue of both coarse-grained and nanostructured metals: A 3D cohesive finite element model with uncertainty characteristics. <i>Engineering Fracture Mechanics</i> , <b>2018</b> , 195, 30-43	4.2	5
41	Computational Investigation of Effects of Grain Size on Ballistic Performance of Copper. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , <b>2018</b> , 19, 1-10	0.7	5
40	Ballistic Performance of Nanostructured Metals Toughened by Elliptical Coarse-Grained Inclusions: A Finite Element Study with Failure Analysis. <i>Materials</i> , <b>2018</b> , 11,	3.5	2
39	Local Monte Carlo Method for Fatigue Analysis of Coarse-Grained Metals with a Nanograined Surface Layer. <i>Metals</i> , <b>2018</b> , 8, 479	2.3	
38	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
37	Interface effects on the strength and ductility of bimodal nanostructured metals. <i>Acta Mechanica</i> , <b>2018</b> , 229, 3475-3487	2.1	6
36	Ballistic Performance of Bimodal Nanostructured and Nanotwin-Strengthened Metals <b>2018</b> , 205-224		
35	Effects of strain rate on the low cycle fatigue behavior of AZ31B magnesium alloy processed by SMAT. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 735, 536-546	5.7	36

34	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
33	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
32	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
31	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
30	Influences of nanotwin volume fraction on the ballistic performance of coarse-grained metals. <i>Theoretical and Applied Mechanics Letters</i> , <b>2017</b> , 7, 265-268	1.8	3
29	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
28	3D microstructure-based simulations of strength and ductility of bimodal nanostructured metals. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 677, 76-88	5.3	15
27	The saturation state of strength and ductility of bimodal nanostructured metals. <i>Materials Letters</i> , <b>2016</b> , 175, 131-134	3.3	14
26	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
25	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
24	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
23	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
22	Mechanism for buckling of shield tunnel linings under hydrostatic pressure. <i>Tunnelling and Underground Space Technology</i> , <b>2015</b> , 49, 144-155	5.7	13
21	3D cohesive modeling of nanostructured metallic alloys with a Weibull random field in torsional fatigue. <i>International Journal of Mechanical Sciences</i> , <b>2015</b> , 101-102, 227-240	5.5	7
20	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
19	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
18	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
17	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

16	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
15	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
14	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
13	Determination of fracture toughness of AZ31 Mg alloy using the cohesive finite element method. <i>Engineering Fracture Mechanics</i> , <b>2012</b> , 96, 401-415	4.2	36
12	Ductility enhancement of layered stainless steel with nanograined interface layers. <i>Computational Materials Science</i> , <b>2012</b> , 55, 350-355	3.2	24
11	Numerical Investigation of the Bilinear Softening Law in the Cohesive Crack Model for Normal-Strength and High-Strength Concrete. <i>Advances in Structural Engineering</i> , <b>2012</b> , 15, 373-387	1.9	9
10	Investigation of non-local cracking in layered stainless steel with nanostructured interface. <i>Scripta Materialia</i> , <b>2010</b> , 63, 403-406	5.6	27
9	Mechanism for the Pseudoelastic Behavior of FCC Shape Memory Nanowires. <i>Experimental Mechanics</i> , <b>2009</b> , 49, 183-190	2.6	8
8	Bending buckling of single-walled carbon nanotubes by atomic-scale finite element. <i>Composites Part B: Engineering</i> , <b>2008</b> , 39, 202-208	10	35
7	Torsional Buckling of Single-Walled Carbon Nanotubes. <i>Computational Methods in Applied Sciences (Springer)</i> , <b>2008</b> , 1-8	0.4	1
6	Critical Strain of Carbon Nanotubes: An Atomic-Scale Finite Element Study. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2007</b> , 74, 347-351	2.7	19
5	Postbuckling of carbon nanotubes by atomic-scale finite element. <i>Journal of Applied Physics</i> , <b>2006</b> , 99, 124308	2.5	37
4	A continuum model for zigzag single-walled carbon nanotubes. <i>Applied Physics Letters</i> , <b>2005</b> , 86, 083110	3.4	26
3	Comment on "relevant length scale of barchan dunes". <i>Physical Review Letters</i> , <b>2004</b> , 93, 039401	7.4	9
2	Research on the Theoretical Prediction of the Electric Field Generated by Wind-Blown Sand. <i>Key Engineering Materials</i> , <b>2003</b> , 243-244, 583-588	0.4	
1	Experimental measurement of wind-sand flux and sand transport for naturally mixed sands. <i>Physical Review E</i> , <b>2002</b> , 66, 021305	2.4	48