

Xiang Guo

List of Publications by Year in descending order

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52
papers

1,029
citations

393982

19
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454577

30
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52
all docs

52
docs citations

52
times ranked

723
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructures-based constitutive analysis for mechanical properties of gradient-nanostructured 304 stainless steels. <i>Acta Materialia</i> , 2017, 128, 375-390.	3.8	86
2	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.	2.3	74
3	Experimental measurement of wind-sand flux and sand transport for naturally mixed sands. <i>Physical Review E</i> , 2002, 66, 021305.	0.8	50
4	Effects of strain rate on the low cycle fatigue behavior of AZ31B magnesium alloy processed by SMAT. <i>Journal of Alloys and Compounds</i> , 2018, 735, 536-546.	2.8	48
5	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.	2.6	45
6	Postbuckling of carbon nanotubes by atomic-scale finite element. <i>Journal of Applied Physics</i> , 2006, 99, 124308.	1.1	40
7	Bending buckling of single-walled carbon nanotubes by atomic-scale finite element. <i>Composites Part B: Engineering</i> , 2008, 39, 202-208.	5.9	40
8	Determination of fracture toughness of AZ31 Mg alloy using the cohesive finite element method. <i>Engineering Fracture Mechanics</i> , 2012, 96, 401-415.	2.0	40
9	Effect of surface mechanical attrition treatment on corrosion fatigue behavior of AZ31B magnesium alloy. <i>International Journal of Fatigue</i> , 2019, 127, 461-469.	2.8	40
10	Simulation of ballistic performance of a two-layered structure of nanostructured metal and ceramic. <i>Composite Structures</i> , 2016, 157, 163-173.	3.1	32
11	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.	4.1	30
12	Investigation of non-local cracking in layered stainless steel with nanostructured interface. <i>Scripta Materialia</i> , 2010, 63, 403-406.	2.6	29
13	Fatigue crack propagation behavior of fuel cell membranes after chemical degradation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27653-27664.	3.8	29
14	A continuum model for zigzag single-walled carbon nanotubes. <i>Applied Physics Letters</i> , 2005, 86, 083110.	1.5	28
15	Ductility enhancement of layered stainless steel with nanograined interface layers. <i>Computational Materials Science</i> , 2012, 55, 350-355.	1.4	26
16	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.	0.8	23
17	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.	2.6	22
18	Numerical investigation of fracture behavior of nanostructured Cu with bimodal grain size distribution. <i>Acta Mechanica</i> , 2014, 225, 1093-1106.	1.1	21

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19	Simulation of ballistic performance of coarse-grained metals strengthened by nanotwinned regions. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 085009.	0.8	21
20	Critical Strain of Carbon Nanotubes: An Atomic-Scale Finite Element Study. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 347-351.	1.1	20
21	Mesh dependence of transverse cracking in laminated metals with nanograined interface layers. Engineering Fracture Mechanics, 2013, 105, 211-220.	2.0	20
22	Mechanism for buckling of shield tunnel linings under hydrostatic pressure. Tunnelling and Underground Space Technology, 2015, 49, 144-155.	3.0	20
23	The direct and indirect effects of nanotwin volume fraction on the strength and ductility of coarse-grained metals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 657, 234-243.	2.6	20
24	Prediction of mechanical properties in bimodal nanotwinned metals with a composite structure. Composites Science and Technology, 2016, 123, 222-231.	3.8	19
25	3D microstructure-based simulations of strength and ductility of bimodal nanostructured metals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 677, 76-88.	2.6	18
26	The saturation state of strength and ductility of bimodal nanostructured metals. Materials Letters, 2016, 175, 131-134.	1.3	18
27	Effect of hydride precipitation on the fatigue cracking behavior in a zirconium alloy cladding tube. International Journal of Fatigue, 2019, 129, 105230.	2.8	15
28	A study of dynamic plasticity in austenite stainless steels with a gradient distribution of nanoscale twins. Scripta Materialia, 2017, 133, 49-53.	2.6	13
29	Simulating Size and Volume Fraction-Dependent Strength and Ductility of Nanotwinned Composite Copper. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	1.1	11
30	Micromechanical modeling for mechanical properties of gradient-nanotwinned metals with a composite microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 703, 180-186.	2.6	11
31	Mechanism for the Pseudoelastic Behavior of FCC Shape Memory Nanowires. Experimental Mechanics, 2009, 49, 183-190.	1.1	10
32	Constitutive modeling of size-dependent deformation behavior in nano-dual-phase glass-crystal alloys. International Journal of Plasticity, 2021, 137, 102918.	4.1	10
33	Comment on "Relevant Length Scale of Barchan Dunes". Physical Review Letters, 2004, 93, 039401.	2.9	9
34	Numerical Investigation of the Bilinear Softening Law in the Cohesive Crack Model for Normal-Strength and High-Strength Concrete. Advances in Structural Engineering, 2012, 15, 373-387.	1.2	9
35	Axial-torsional high-cycle fatigue of both coarse-grained and nanostructured metals: A 3D cohesive finite element model with uncertainty characteristics. Engineering Fracture Mechanics, 2018, 195, 30-43.	2.0	9
36	Biaxial fatigue crack growth in proton exchange membrane of fuel cells based on cyclic cohesive finite element method. International Journal of Mechanical Sciences, 2021, 189, 105946.	3.6	9

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37	Computational Investigation of Effects of Grain Size on Ballistic Performance of Copper. International Journal for Computational Methods in Engineering Science and Mechanics, 2018, 19, 1-10.	1.4	8
38	Interface effects on the strength and ductility of bimodal nanostructured metals. Acta Mechanica, 2018, 229, 3475-3487.	1.1	8
39	Simulation of ductile fracture of zirconium alloys based on triaxiality dependent cohesive zone model. Acta Mechanica, 2021, 232, 3723-3736.	1.1	8
40	3D cohesive modeling of nanostructured metallic alloys with a Weibull random field in torsional fatigue. International Journal of Mechanical Sciences, 2015, 101-102, 227-240.	3.6	7
41	Microstructureâ€Property Relations in the Tensile Behavior of Bimodal Nanostructured Metals. Advanced Engineering Materials, 2020, 22, 2000097.	1.6	6
42	Surface Stress Effects on the Yield Strength in Nanotwinned Polycrystal Face-Centered-Cubic Metallic Nanowires. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	1.1	5
43	Tensile Failure Modes in Nanograined Metals with Nanotwinned Regions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5001-5014.	1.1	5
44	The limit velocity and limit displacement of nanotwin-strengthened metals under ballistic impact. Acta Mechanica, 2018, 229, 1741-1757.	1.1	5
45	Influences of nanotwin volume fraction on the ballistic performance of coarse-grained metals. Theoretical and Applied Mechanics Letters, 2017, 7, 265-268.	1.3	4
46	Ballistic Performance of Nanostructured Metals Toughened by Elliptical Coarse-Grained Inclusions: A Finite Element Study with Failure Analysis. Materials, 2018, 11, 977.	1.3	2
47	Tuning the strength-ductility synergy of nanograined Cu through nanotwin volume fraction. Computational Materials Science, 2022, 203, 111073.	1.4	2
48	Constitutive modeling of mechanical behaviors in gradient nanostructured alloys with hierarchical dual-phased microstructures. Acta Mechanica, 2022, 233, 3197-3212.	1.1	2
49	Local Monte Carlo Method for Fatigue Analysis of Coarse-Grained Metals with a Nanograined Surface Layer. Metals, 2018, 8, 479.	1.0	1
50	Torsional Buckling of Single-Walled Carbon Nanotubes. Computational Methods in Applied Sciences (Springer), 2008, , 1-8.	0.1	1
51	Research on the Theoretical Prediction of the Electric Field Generated by Wind-Blown Sand. Key Engineering Materials, 2003, 243-244, 583-588.	0.4	0
52	Ballistic Performance of Bimodal Nanostructured and Nanotwin-Strengthened Metals. , 2018, , 205-224.		0