Yanfei Gao

List of Publications by Year
in descending order

177 papers	8,887 citations	50170 46 h-index	46693 89 g-index
180 all docs	180 docs citations	180 times ranked	7215 citing authors

#	Article	IF	Citations
1	Tuning element distribution, structure and properties by composition in high-entropy alloys. Nature, 2019, 574, 223-227.	13.7	874
2	Prediction of intrinsic two-dimensional ferroelectrics in In2Se3 and other III2-VI3 van der Waals materials. Nature Communications, 2017, 8, 14956.	5.8	830
3	The Indentation Size Effect: A Critical Examination of Experimental Observations and Mechanistic Interpretations. Annual Review of Materials Research, 2010, 40, 271-292.	4.3	546
4	Enhanced strengthâ€"ductility synergy in ultrafine-grained eutectic high-entropy alloys by inheriting microstructural lamellae. Nature Communications, 2019, 10, 489.	5.8	505
5	Mechanical behavior of high-entropy alloys. Progress in Materials Science, 2021, 118, 100777.	16.0	492
6	A simple technique for avoiding convergence problems in finite element simulations of crack nucleation and growth on cohesive interfaces. Modelling and Simulation in Materials Science and Engineering, 2004, 12, 453-463.	0.8	257
7	Thermal activation mechanisms and Labusch-type strengthening analysis for a family of high-entropy and equiatomic solid-solution alloys. Acta Materialia, 2016, 120, 108-119.	3.8	243
8	Strength differences arising from homogeneous versus heterogeneous dislocation nucleation. Physical Review B, 2008, 77, .	1.1	166
9	Fracture resistance of high entropy alloys: A review. Intermetallics, 2018, 99, 69-83.	1.8	149
10	Strain-Driven Oxygen Deficiency in Self-Assembled, Nanostructured, Composite Oxide Films. ACS Nano, 2011, 5, 4783-4789.	7.3	122
11	An implicit finite element method for simulating inhomogeneous deformation and shear bands of amorphous alloys based on the free-volume model. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 1329-1345.	0.8	119
12	Cohesive interface simulations of indentation cracking as a fracture toughness measurement method for brittle materials. Acta Materialia, 2012, 60, 5448-5467.	3.8	110
13	Indentation Schmid factor and orientation dependence of nanoindentation pop-in behavior of NiAl single crystals. Journal of the Mechanics and Physics of Solids, 2011, 59, 1147-1162.	2.3	106
14	Effect of residual stresses on the hardness of bulk metallic glasses. Acta Materialia, 2011, 59, 2858-2864.	3.8	105
15	Fatigue and fracture behavior of bulk metallic glasses and their composites. Progress in Materials Science, 2018, 98, 168-248.	16.0	89
16	The behavior of an elasticâ€"perfectly plastic sinusoidal surface under contact loading. Wear, 2006, 261, 145-154.	1.5	86
17	Elasticâ€"plastic contact of a rough surface with Weierstrass profile. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 319-348.	1.0	84
18	Internal short circuit and failure mechanisms of lithium-ion pouch cells under mechanical indentation abuse conditionsï¼šAn experimental study. Journal of Power Sources, 2020, 455, 227939.	4.0	84

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19	Incipient plasticity and deformation mechanisms in single-crystal Mg during spherical nanoindentation. Acta Materialia, 2013, 61, 2953-2965.	3.8	83
20	Ferritic Alloys with Extreme Creep Resistance via Coherent Hierarchical Precipitates. Scientific Reports, 2015, 5, 16327.	1.6	80
21	Thin-film metallic glasses for substrate fatigue-property improvements. Thin Solid Films, 2014, 561, 2-27.	0.8	79
22	Strength statistics of single crystals and metallic glasses under small stressed volumes. Progress in Materials Science, 2016, 82, 118-150.	16.0	77
23	Structural heterogeneity induced plasticity in bulk metallic glasses: From well-relaxed fragile glass to metal-like behavior. Applied Physics Letters, 2013, 103, .	1.5	74
24	On the correlation between microscopic structural heterogeneity and embrittlement behavior in metallic glasses. Scientific Reports, 2015, 5, 14786.	1.6	70
25	A Zr-based bulk metallic glass for future stent applications: Materials properties, finite element modeling, and in vitro human vascular cell response. Acta Biomaterialia, 2015, 25, 356-368.	4.1	69
26	Characterization of deformation anisotropies in an Î±-Ti alloy by nanoindentation and electron microscopy. Acta Materialia, 2013, 61, 4743-4756.	3.8	67
27	Phase stability, physical properties and strengthening mechanisms of concentrated solid solution alloys. Current Opinion in Solid State and Materials Science, 2017, 21, 267-284.	5.6	66
28	Single crystal plastic behavior of a single-phase, face-center-cubic-structured, equiatomic FeNiCrCo alloy. Scripta Materialia, 2015, 109, 108-112.	2.6	65
29	Thermomechanical instability analysis of inhomogeneous deformation in amorphous alloys. Acta Materialia, 2007, 55, 2319-2327.	3.8	64
30	Deformation mechanisms in a precipitation-strengthened ferritic superalloy revealed by in situ neutron diffraction studies at elevated temperatures. Acta Materialia, 2015, 83, 137-148.	3.8	64
31	A novel face-centered-cubic high-entropy alloy strengthened by nanoscale precipitates. Scripta Materialia, 2019, 172, 51-55.	2.6	64
32	Micro-scratch study of a magnetron-sputtered Zr-based metallic-glass film. Surface and Coatings Technology, 2009, 203, 3480-3484.	2.2	62
33	On the shear-band direction in metallic glasses. Acta Materialia, 2011, 59, 4159-4167.	3.8	62
34	Microstructural evolution of single Ni2TiAl or hierarchical NiAl/Ni2TiAl precipitates in Fe-Ni-Al-Cr-Ti ferritic alloys during thermal treatment for elevated-temperature applications. Acta Materialia, 2017, 127, 1-16.	3.8	62
35	Delamination mechanism maps for a strong elastic coating on an elasticâ€"plastic substrate subjected to contact loading. International Journal of Solids and Structures, 2007, 44, 3685-3699.	1.3	60
36	Twinningâ€"detwinning behavior during fatigue-crack propagation in a wrought magnesium alloy AZ31B. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 278-286.	2.6	58

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37	Effective elastic modulus of film-on-substrate systems under normal and tangential contact. Journal of the Mechanics and Physics of Solids, 2008, 56, 402-416.	2.3	54
38	Twinning-mediated work hardening and texture evolution in CrCoFeMnNi high entropy alloys at cryogenic temperature. Materials and Design, 2017, 131, 419-427.	3.3	54
39	Formation mechanism of abnormally large grains in a polycrystalline nickel-based superalloy during heat treatment processing. Acta Materialia, 2019, 168, 287-298.	3.8	54
40	Multidimensional contact moduli of elastically anisotropic solids. Scripta Materialia, 2007, 57, 13-16.	2.6	53
41	Determining the activation energies and slip systems for dislocation nucleation in body-centered cubic Mo and face-centered cubic Ni single crystals. Scripta Materialia, 2011, 65, 179-182.	2.6	53
42	Stacking Principle and Magic Sizes of Transition Metal Nanoclusters Based on Generalized Wulff Construction. Physical Review Letters, 2013, 111, 115501.	2.9	53
43	Enhanced strength and ductility of a tungsten-doped CoCrNi medium-entropy alloy. Journal of Materials Research, 2018, 33, 3301-3309.	1.2	51
44	Selfâ€Assembly of Nanostructured, Complex, Multication Films via Spontaneous Phase Separation and Strainâ€Driven Ordering. Advanced Functional Materials, 2013, 23, 1912-1918.	7.8	49
45	Deformation-induced spatiotemporal fluctuation, evolution and localization of strain fields in a bulk metallic glass. International Journal of Plasticity, 2015, 71, 136-145.	4.1	49
46	An oxidized magnetic Au single atom on doped TiO₂(110) becomes a high performance CO oxidation catalyst due to the charge effect. Journal of Materials Chemistry A, 2017, 5, 19316-19322.	5.2	49
47	An as-cast high-entropy alloy with remarkable mechanical properties strengthened by nanometer precipitates. Nanoscale, 2020, 12, 3965-3976.	2.8	49
48	Intrinsic properties and strengthening mechanism of monocrystalline Ni-containing ternary concentrated solid solutions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 695, 74-79.	2.6	47
49	Intragranular twinning, detwinning, and twinning-like lattice reorientation in magnesium alloys. Acta Materialia, 2016, 121, 15-23.	3.8	46
50	Novel NiAl-strengthened high entropy alloys with balanced tensile strength and ductility. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 742, 636-647.	2.6	44
51	Strengthening in Al-, Mo- or Ti-doped CoCrFeNi high entropy alloys: A parallel comparison. Journal of Materials Science and Technology, 2021, 94, 264-274.	5.6	44
52	Intergranular strain evolution near fatigue crack tips in polycrystalline metals. Journal of the Mechanics and Physics of Solids, 2011, 59, 2307-2322.	2.3	41
53	Fatigue-resistance enhancements by glass-forming metallic films. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 468-470, 246-252.	2.6	40
54	Indentation Schmid factor and incipient plasticity by nanoindentation pop-in tests in hexagonal close-packed single crystals. Acta Materialia, 2017, 134, 53-65.	3.8	39

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55	Spatial ordering and anisotropy in surface stress domains and nanostructural evolution. Jom, 2008, 60, 54-58.	0.9	38
56	Tool-workpiece stick-slip conditions and their effects on torque and heat generation rate in the friction stir welding. Acta Materialia, 2021, 213, 116969.	3.8	38
57	Synthesis, characterization, and nanoindentation response of single crystal Feâ€“Crâ€“Ni alloys with FCC and BCC structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 611, 177-187.	2.6	37
58	Is the compression of tapered micro- and nanopillar samples a legitimate technique for the identification of deformation mode change in metallic glasses?. Scripta Materialia, 2012, 66, 817-820.	2.6	36
59	In Situ Neutron-Diffraction Studies on the Creep Behavior of a Ferritic Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1497-1508.	1.1	36
60	A mesophase transition in a binary monolayer on a solid surface. Acta Materialia, 2002, 50, 2297-2308.	3.8	35
61	Scale effects in convoluted thermal/spatial statistics of plasticity initiation in small stressed volumes during nanoindentation. Materials Science and Technology, 2012, 28, 1055-1059.	0.8	34
62	Lattice Rotation Patterns and Strain Gradient Effects in Face-Centered-Cubic Single Crystals Under Spherical Indentation. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.1	34
63	Rate-Dependent Deformation Behavior of Zr-Based Metallic-Glass Coatings Examined by Nanoindentation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 1862-1867.	1.1	33
64	Atomistic mechanisms for bilayer growth of graphene on metal substrates. Physical Review B, 2015, 91, .	1.1	33
65	Origin of serrated flow in bulk metallic glasses. Journal of the Mechanics and Physics of Solids, 2019, 124, 634-642.	2.3	33
66	Failure analysis of pinchâ€“torsion tests as a thermal runaway risk evaluation method of Li-ion cells. Journal of Power Sources, 2014, 265, 356-362.	4.0	32
67	The orientation of the self-assembled monolayer stripes on a crystalline substrate. Journal of the Mechanics and Physics of Solids, 2003, 51, 147-167.	2.3	31
68	Nanoscale incipient asperity sliding and interface micro-slip assessed by the measurement of tangential contact stiffness. Scripta Materialia, 2006, 55, 653-656.	2.6	31
69	A Peierls perspective on mechanisms of atomicfriction. Journal of the Mechanics and Physics of Solids, 2010, 58, 2023-2032.	2.3	31
70	A tale of two mechanisms: Strain-softening versus strain-hardening in single crystals under small stressed volumes. Scripta Materialia, 2016, 110, 48-52.	2.6	31
71	Extraction of Anisotropic Mechanical Properties From Nanoindentation of SiC-6H Single Crystals. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	1.1	30
72	Effects of geometric factors and shear band patterns on notch sensitivity in bulk metallic glasses. Intermetallics, 2016, 79, 12-19.	1.8	30

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73	Diffusion-coupled cohesive interface simulations of stress corrosion intergranular cracking in polycrystalline materials. Acta Materialia, 2017, 136, 21-31.	3.8	30
74	An evaluation of the advantages and limitations in simulating indentation cracking with cohesive zone finite elements. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 015011.	0.8	29
75	Lattice rotation caused by wedge indentation of a single crystal: Dislocation dynamics compared to crystal plasticity simulations. Journal of the Mechanics and Physics of Solids, 2014, 68, 267-279.	2.3	29
76	Guided self-assembly of molecular dipoles on a substrate surface. Journal of Applied Physics, 2003, 93, 4276-4282.	1.1	28
77	Pair distribution function study and mechanical behavior of as-cast and structurally relaxed Zr-based bulk metallic glasses. Applied Physics Letters, 2006, 89, 231920.	1.5	26
78	Effects of machine stiffness on the loadingâ€"displacement curve during spherical nano-indentation. Journal of Materials Research, 2013, 28, 1903-1911.	1.2	26
79	Substrate co-doping modulates electronic metalâ€"support interactions and significantly enhances single-atom catalysis. Nanoscale, 2016, 8, 19256-19262.	2.8	26
80	Mechanical behavior of a Zr-based bulk metallic glass and its composite at cryogenic temperatures. Journal of Materials Research, 2007, 22, 445-452.	1.2	25
81	Micro-plasticity of surface steps under adhesive contact: Part Iâ€"Surface yielding controlled by single-dislocation nucleation. Journal of the Mechanics and Physics of Solids, 2007, 55, 489-516.	2.3	25
82	Metallic glasses: Gaining plasticity for microsystems. Jom, 2010, 62, 93-98.	0.9	25
83	Quantifying early stage irradiation damage from nanoindentation pop-in tests. Scripta Materialia, 2018, 157, 49-53.	2.6	24
84	Nano-twin-induced exceptionally superior cryogenic mechanical properties of a Ni-based GH3536 (Hastelloy X) superalloy. Materials Today Nano, 2021, 14, 100110.	2.3	24
85	Effect of residual stresses on the onset of yielding in a Zr-based metallic glass. Acta Materialia, 2011, 59, 7627-7633.	3.8	23
86	Insights from the Lattice-Strain Evolution on Deformation Mechanisms in Metallic-Glass-Matrix Composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2431-2442.	1.1	23
87	Influence of thin-film metallic glass coating on fatigue behavior of bulk metallic glass: Experiments and finite element modeling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 692, 146-155.	2.6	23
88	Tensile creep behavior of an equiatomic CoCrNi medium entropy alloy. Intermetallics, 2020, 121, 106775.	1.8	23
89	Micromechanics modeling of creep fracture of zirconium diborideâ€"silicon carbide composites at 1400â€"1700Â°C. Journal of the European Ceramic Society, 2014, 34, 4145-4155.	2.8	22
90	High Temperature Deformation Mechanism in Hierarchical and Single Precipitate Strengthened Ferritic Alloys by In Situ Neutron Diffraction Studies. Scientific Reports, 2017, 7, 45965.	1.6	22

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91	Domain Dynamics in a Ferroelastic Epilayer on a Paraelastic Substrate. Journal of Applied Mechanics, Transactions ASME, 2002, 69, 419-424.	1.1	21
92	Displacement fields and self-energies of circular and polygonal dislocation loops in homogeneous and layered anisotropic solids. Journal of the Mechanics and Physics of Solids, 2015, 83, 104-128.	2.3	21
93	Instability Analysis and Free Volume Simulations of Shear Band Directions and Arrangements in Notched Metallic Glasses. Scientific Reports, 2016, 6, 34878.	1.6	21
94	Processing, Microstructures and Mechanical Properties of a Ni-Based Single Crystal Superalloy. Crystals, 2020, 10, 572.	1.0	21
95	Neutron and X-ray diffraction studies and cohesive interface model of the fatigue crack deformation behavior. Philosophical Magazine Letters, 2008, 88, 553-565.	0.5	20
96	Crystal Plasticity Analysis of Stress Partitioning Mechanisms and Their Microstructural Dependence in Advanced Steels. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.1	20
97	Interplay between the spin-selection rule and frontier orbital theory in O₂ activation and CO oxidation by single-atom-sized catalysts on TiO₂(110). Physical Chemistry Chemical Physics, 2016, 18, 24872-24879.	1.3	20
98	Interface strength in NiAlâ€"Mo composites from 3-D X-ray microdiffraction. Scripta Materialia, 2011, 64, 900-903.	2.6	19
99	Interface Constraints on Shear Band Patterns in Bonded Metallic Glass Films Under Microindentation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2729-2741.	1.1	19
100	3D x-ray microprobe investigation of local dislocation densities and elastic strain gradients in a NiAl-Mo composite and exposed Mo micropillars as a function of prestrain. Journal of Materials Research, 2010, 25, 199-206.	1.2	18
101	Characterization of dislocation structures and deformation mechanisms in as-grown and deformed directionally solidified NiAlâ€"Mo composites. Acta Materialia, 2015, 89, 315-326.	3.8	17
102	Ductility limit diagrams for superplasticity and forging of high temperature polycrystalline materials. Acta Materialia, 2020, 194, 378-386.	3.8	17
103	Investigation on capacity loss mechanisms of lithium-ion pouch cells under mechanical indentation conditions. Journal of Power Sources, 2020, 465, 228314.	4.0	17
104	Passing stiffness anisotropy in multilayers and its effects on nanoscale surface self-organization. International Journal of Solids and Structures, 2003, 40, 6429-6444.	1.3	15
105	Indentation-induced localized deformation and elastic strain partitioning in composites at submicron length scale. Acta Materialia, 2010, 58, 6784-6789.	3.8	15
106	Effects of grain boundary heterogeneities on creep fracture studied by rate-dependent cohesive model. Engineering Fracture Mechanics, 2012, 93, 48-64.	2.0	15
107	Single versus successive pop-in modes in nanoindentation tests of single crystals. Journal of Materials Research, 2016, 31, 2065-2075.	1.2	15
108	Micromechanical origin of the enhanced ductility in twinless duplex Mgâ€"Li alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 815, 141305.	2.6	15

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109	Nanoscale Domain Stability in Organic Monolayers on Metals. Journal of Applied Mechanics, Transactions ASME, 2004, 71, 24-31.	1.1	14
110	AN APPROXIMATE FORMULATION OF THE EFFECTIVE INDENTATION MODULUS OF ELASTICALLY ANISOTROPIC FILM-ON-SUBSTRATE SYSTEMS. International Journal of Applied Mechanics, 2009, 01, 515-525.	1.3	14
111	Nanocrystallization in a Cu-doped Fe-based metallic glass. Journal of Alloys and Compounds, 2016, 688, 822-827.	2.8	14
112	Type IV failure in weldment of creep resistant ferritic alloys: I. Micromechanical origin of creep strain localization in the heat affected zone. Journal of the Mechanics and Physics of Solids, 2020, 134, 103774.	2.3	14
113	Plastic instability in amorphous selenium near its glass transition temperature. Journal of Materials Research, 2010, 25, 1015-1019.	1.2	12
114	Grain orientation dependence of lattice strains and intergranular damage rates in polycrystals under cyclic loading. Scripta Materialia, 2013, 68, 265-268.	2.6	12
115	Revealing the influential mechanism of strain ranges on cyclic-life saturation during creep-fatigue in Nickel-based superalloy DZ445. International Journal of Plasticity, 2022, 155, 103320.	4.1	12
116	Kinetic Monte Carlo simulations of nanocolumn formation in two-component epitaxial growth. Applied Physics Letters, 2010, 96, 071913.	1.5	11
117	A micromechanics study of competing mechanisms for creep fracture of zirconium diboride polycrystals. Journal of the European Ceramic Society, 2013, 33, 1625-1637.	2.8	11
118	Stiffness of frictional contact of dissimilar elastic solids. Journal of the Mechanics and Physics of Solids, 2018, 112, 318-333.	2.3	11
119	Mysterious failure in load-free superalloys under repeated thermal shocks. Acta Materialia, 2020, 194, 276-282.	3.8	11
120	On the solid-state-bonding mechanism in friction stir welding. Extreme Mechanics Letters, 2020, 37, 100727.	2.0	11
121	In situ monitoring of dislocation, twinning, and detwinning modes in an extruded magnesium alloy under cyclic loading conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 806, 140860.	2.6	11
122	Synchrotron x-ray diffraction and crystal plasticity modeling study of martensitic transformation, texture development, and stress partitioning in deep-drawn TRIP steels. Materialia, 2021, 18, 101162.	1.3	11
123	Micromechanical investigation of the role of percolation on ductility enhancement in metallic glass composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 769, 138531.	2.6	10
124	Two-scale porosity effects on cohesive crack growth in a ductile media. International Journal of Solids and Structures, 2020, 200-201, 188-197.	1.3	10
125	The oxidation effect on the cracking behavior of a Co-based alloy under thermal shocks. Corrosion Science, 2020, 173, 108828.	3.0	10
126	Load partitioning between the bcc-iron matrix and NiAl-type precipitates in a ferritic alloy on multiple length scales. Scientific Reports, 2016, 6, 23137.	1.6	10

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127	Non-uniform breaking of molecular bonds, peripheral morphology and releasable adhesion by elastic anisotropy in bio-adhesive contacts. Journal of the Royal Society Interface, 2015, 12, 20141042.	1.5	9
128	Scale dependence of interface dislocation storage governing the frictional sliding of single asperities. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 065010.	0.8	9
129	Why do receptorâ€"ligand bonds in cell adhesion cluster into discrete focal-adhesion sites?. Journal of the Mechanics and Physics of Solids, 2016, 95, 557-574.	2.3	9
130	Micro-plasticity of surface steps under adhesive contact: Part IIâ€"Multiple-dislocation mediated contact hardening. Journal of the Mechanics and Physics of Solids, 2008, 56, 2759-2772.	2.3	8
131	A Comparison of Coulomb Friction and Friction Stress Models Based on Multidimensional Nanocontact Experiments. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	1.1	8
132	Geometric effects on dislocation nucleation in strained electronics. Applied Physics Letters, 2009, 94, .	1.5	8
133	Effects of similar-element-substitution on the glass-forming ability and mechanical behaviors of Ti-Cu-Zr-Pd bulk metallic glasses. Journal of Materials Research and Technology, 2018, 7, 261-269.	2.6	8
134	Plastic anisotropy and twin distributions near the fatigue crack tip of textured Mg alloys from in situ synchrotron X-ray diffraction measurements and multiscale mechanics modeling. Journal of the Mechanics and Physics of Solids, 2022, 165, 104936.	2.3	8
135	In situ neutron diffraction study on tensile deformation behavior of carbon-strengthened CoCrFeMnNi high-entropy alloys at room and elevated temperatures. Journal of Materials Research, 2018, 33, 3192-3203.	1.2	7
136	Corrections to the stiffness relationship in 3-sided and conical indentation problems. International Journal of Solids and Structures, 2019, 166, 154-166.	1.3	7
137	Evolution of the mechanical properties of a cobalt-based alloy under thermal shocks. Materials and Design, 2020, 188, 108425.	3.3	7
138	Type IV failure in weldment of creep resistant ferritic alloys: II. Creep fracture and lifetime prediction. Journal of the Mechanics and Physics of Solids, 2020, 134, 103775.	2.3	7
139	Concomitant oxidation-diffusion-creep processes for stress generation and suppression of oxide-alloy interfacial instabilities. Journal of the Mechanics and Physics of Solids, 2021, 146, 104218.	2.3	7
140	Compositional effects on stacking fault energies in Ni-based alloys using first-principles and atomistic simulations. Computational Materials Science, 2021, 197, 110618.	1.4	7
141	Mixed-mode singularity and temperature effects on dislocation nucleation in strained interconnects. International Journal of Solids and Structures, 2011, 48, 1180-1190.	1.3	6
142	Mesoscale friction anisotropy revealed by slidingless tests. Journal of Materials Research, 2011, 26, 2373-2378.	1.2	6
143	Effective Poissonâ€™s ratio from combined normal and lateral contacts of single crystals. Journal of Materials Research, 2012, 27, 182-191.	1.2	6
144	Yield strength dependence on strain rate of molybdenum-alloy nanofibers. Applied Physics Letters, 2014, 104, 251909.	1.5	6

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145	Direct synchrotron x-ray measurements of local strain fields in elastically and plastically bent metallic glasses. Intermetallics, 2015, 67, 132-137.	1.8	6
146	Indirectly probing the structural change in ion-irradiated Zr-Based metallic glasses from small scale mechanical tests. Intermetallics, 2020, 121, 106794.	1.8	6
147	Flow-coupled cohesive interface framework for simulating heterogeneous crack morphology and resolving numerical divergence in hydraulic fracture. Extreme Mechanics Letters, 2021, 45, 101281.	2.0	6
148	CAN MUSHROOM-SHAPED FIBERS ENHANCE THE BIO-ADHESIVE PERFORMANCE?. Journal of Mechanics in Medicine and Biology, 2015, 15, 1550068.	0.3	5
149	Seeing the unseen: uncover the bulk heterogeneous deformation processes in metallic glasses through surface temperature decoding. Materials Today, 2017, 20, 9-15.	8.3	5
150	Probing elastically or plastically induced structural heterogeneities in bulk metallic glasses by nanoindentation pop-in tests. AIP Advances, 2017, 7, .	0.6	5
151	A mechanistic interpretation of the strength-ductility trade-off and synergy in lamellar microstructures. Materials Today Advances, 2020, 8, 100103.	2.5	5
152	What really governs the upper bound of uniform ductility in gradient or layered materials?. Extreme Mechanics Letters, 2021, 48, 101413.	2.0	5
153	Saturation effect of creep-fatigue cyclic-life for Nickel-based superalloy DZ445 under long-term tensile dwell periods at 900ÂÂ°C. Journal of Materials Research and Technology, 2022, 19, 3216-3230.	2.6	5
154	Mapping strain gradients in the FIB-structured InGaN/GaN multilayered films with 3D X-ray microbeam. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 52-57.	2.6	4
155	3-D x-ray strain microscopy in two-phase composites at submicron length scales. Jom, 2011, 63, 30-34.	0.9	4
156	Intriguing structures and magic sizes of heavy noble metal nanoclusters around size 55 governed by relativistic effect and covalent bonding. Journal of Chemical Physics, 2015, 143, 174302.	1.2	4
157	Generation and the role of dislocations in single-crystalline phase-change In₂Se₃nanowires under electrical pulses. Nanotechnology, 2016, 27, 335704.	1.3	4
158	Deformation fields near a steady fatigue crack with anisotropic plasticity. Extreme Mechanics Letters, 2016, 6, 45-51.	2.0	4
159	Failure mode maps of lap joints under the tensile shear testing condition. Extreme Mechanics Letters, 2020, 37, 100728.	2.0	4
160	Determination of the friction stir welding window from the solidâ€state-bonding mechanics under severe thermomechanical conditions. Materialia, 2022, 21, 101350.	1.3	4
161	Long-term tensile creep behavior of a family of FCC-structured multi-component equiatomic solid solution alloys. Scripta Materialia, 2022, 212, 114556.	2.6	4
162	Dislocation Nucleation and Pileup under a Wedge Contact at Nanoscale. Journal of Nanomaterials, 2008, 2008, 1-5.	1.5	3

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163	ALIGNMENT OF CELLULAR FOCAL CONTACTS AND THEIR SHAPES BY SUBSTRATE ANISOTROPY. Journal of Mechanics in Medicine and Biology, 2015, 15, 1550067.	0.3	3
164	Integration of contact size dependence and thermal activation in atomic friction. Extreme Mechanics Letters, 2015, 2, 60-64.	2.0	2
165	Triaxial Constraint and Tensile Strength Enhancement in Brazed Joints. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5587-5596.	1.1	2
166	Comparison of the creep-fatigue cyclic life saturation effect for three different superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 842, 143086.	2.6	2
167	Synergistic effects of microstructural inhomogeneity and phase-transformation-induced plasticity for ductility improvements in metallic glass composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 849, 143491.	2.6	2
168	On the Manipulation of Nanoscale Self-Assembly by Elastic Field. Materials Research Society Symposia Proceedings, 2003, 794, 265.	0.1	1
169	Similarity Relationships in Creep Contacts and Applications in Nanoindentation Tests. Materials Research Society Symposia Proceedings, 2009, 1224, 1.	0.1	1
170	Finite Element Studies of Homogeneous and Heterogeneous Dislocation Nucleation based on the Rice-Peierls Framework. Materials Research Society Symposia Proceedings, 2011, 1363, 1.	0.1	1
171	Competing Grain Boundary and Interior Deformation Mechanisms with Varying Sizes. , 2018, , 1-16.		1
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