

Huajian Gao

List of Publications by Year in descending order

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560
papers

53,012
citations

1097

112
h-index

1751

212
g-index

569
all docs

569
docs citations

569
times ranked

35500
citing authors

#	ARTICLE	IF	CITATIONS
1	A gradient Eshelby force on twinning partial dislocations and associated detwinning mechanism in gradient nanotwinned metals. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 159, 104746.	2.3	8
2	Nacre's brick-mortar structure suppresses the adverse effect of microstructural randomness. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 159, 104769.	2.3	24
3	Unraveling the origin of extra strengthening in gradient nanotwinned metals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	36
4	Thermally induced continuous water flow in long nanotube channels. <i>Carbon</i> , 2022, 191, 175-182.	5.4	8
5	Chemical affinity can govern notch-tip brittle-to-ductile transition in metallic glasses. <i>Extreme Mechanics Letters</i> , 2022, 52, 101651.	2.0	5
6	A general solution to the maximum detachment force in thin film peeling. <i>International Journal of Solids and Structures</i> , 2022, 242, 111546.	1.3	7
7	Stretchable and ultrasensitive strain sensor based on a bilayer wrinkle-microcracking mechanism. <i>Chemical Engineering Journal</i> , 2022, 437, 135399.	6.6	42
8	Thermal-fluctuation gradient induced tangential entropic forces in layered two-dimensional materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 163, 104871.	2.3	10
9	Antimicrobial activity of the membrane-active compound nTZDpa is enhanced at low pH. <i>Biomedicine and Pharmacotherapy</i> , 2022, 150, 112977.	2.5	6
10	Frequency-dependent transition in power-law rheological behavior of living cells. <i>Science Advances</i> , 2022, 8, eabn6093.	4.7	22
11	Heterostructured materials: superior properties from hetero-zone interaction. <i>Materials Research Letters</i> , 2021, 9, 1-31.	4.1	505
12	Shear failure in supported two-dimensional nanosheet van der Waals thin films. <i>Carbon</i> , 2021, 173, 410-418.	5.4	10
13	Dynamic recrystallization-induced temperature insensitivity of yield stress in single-crystal Al _{1.2} CrFeCoNi micropillars. <i>Science China Technological Sciences</i> , 2021, 64, 11-22.	2.0	18
14	Machine Learning for High-Entropy Alloys. <i>Springer Series in Materials Science</i> , 2021, , 21-58.	0.4	4
15	Optimum Particle Size in Silicon Electrodes Dictated by Chemomechanical Deformation of the SEI. <i>Advanced Functional Materials</i> , 2021, 31, 2010640.	7.8	10
16	Breaking two-dimensional polymeric crystals. <i>Matter</i> , 2021, 4, 763-765.	5.0	2
17	Effect of shear stress on adhesive contact with a generalized Maugis-Dugdale cohesive zone model. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 148, 104275.	2.3	25
18	Rapid fabrication of complex nanostructures using room-temperature ultrasonic nanoimprinting. <i>Nature Communications</i> , 2021, 12, 3146.	5.8	20

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19	Quantitative in-situ study of strength-governed interfacial failure between h-BN and polymer-derived ceramic. <i>Acta Materialia</i> , 2021, 210, 116832.	3.8	2
20	Knowledge extraction and transfer in data-driven fracture mechanics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	21
21	A perturbation force based approach to creasing instability in soft materials under general loading conditions. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 151, 104401.	2.3	12
22	Intrinsic toughening and stable crack propagation in hexagonal boron nitride. <i>Nature</i> , 2021, 594, 57-61.	13.7	105
23	Mechanomaterials: A Rational Deployment of Forces and Geometries in Programming Functional Materials. <i>Advanced Materials</i> , 2021, 33, e2007977.	11.1	34
24	Mechanistic Investigation of Electrostatic Field-Enhanced Water Evaporation. <i>Advanced Science</i> , 2021, 8, e2100875.	5.6	21
25	A generalized Maugis-Dugdale solution for adhesion of power-law graded elastic materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 154, 104509.	2.3	21
26	Boron Nitride Nanosheets Can Induce Water Channels Across Lipid Bilayers Leading to Lysosomal Permeabilization. <i>Advanced Materials</i> , 2021, 33, e2103137.	11.1	15
27	Domain Aggregation and Associated Pore Growth in Lipid Membranes. <i>ACS Nano</i> , 2021, 15, 604-613.	7.3	3
28	A deep learning approach to the inverse problem of modulus identification in elasticity. <i>MRS Bulletin</i> , 2021, 46, 19-25.	1.7	33
29	A deep learning approach to the inverse problem of modulus identification in elasticity. <i>MRS Bulletin</i> , 2021, 46, 1-7.	1.7	6
30	A hierarchical cellular structural model to unravel the universal power-law rheological behavior of living cells. <i>Nature Communications</i> , 2021, 12, 6067.	5.8	32
31	Stress evolution in lithium metal electrodes. <i>Energy Storage Materials</i> , 2020, 24, 281-290.	9.5	37
32	Failure progression in the solid electrolyte interphase (SEI) on silicon electrodes. <i>Nano Energy</i> , 2020, 68, 104257.	8.2	70
33	Mesoscopic dynamic model of epithelial cell division with cell-cell junction effects. <i>Physical Review E</i> , 2020, 102, 012405.	0.8	8
34	Intrinsic size dependent plasticity in BCC micro-pillars under uniaxial tension and pure torsion. <i>Extreme Mechanics Letters</i> , 2020, 40, 100901.	2.0	11
35	Concentration dependent properties and plastic deformation facilitate instability of the solid-electrolyte interphase in Li-ion batteries. <i>International Journal of Solids and Structures</i> , 2020, 198, 99-109.	1.3	18
36	Towards understanding the structure-property relationships of heterogeneous-structured materials. <i>Scripta Materialia</i> , 2020, 186, 304-311.	2.6	78

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37	Metallic nanocrystals with low angle grain boundary for controllable plastic reversibility. <i>Nature Communications</i> , 2020, 11, 3100.	5.8	53
38	EML webinar overview: Simulation-assisted discovery of membrane targeting nanomedicine. <i>Extreme Mechanics Letters</i> , 2020, 39, 100817.	2.0	4
39	Fundamental Characteristics of Neuron Adhesion Revealed by Forced Peeling and Time-Dependent Healing. <i>Biophysical Journal</i> , 2020, 118, 1811-1819.	0.2	10
40	Tuning crack-inclusion interaction with an applied σ -stress. <i>International Journal of Fracture</i> , 2020, 222, 13-23.	1.1	4
41	A machine learning approach to fracture mechanics problems. <i>Acta Materialia</i> , 2020, 190, 105-112.	3.8	146
42	Harness the Power of Fracture: Controlled Fragmentation of Graphene via Substrate Necking. <i>Matter</i> , 2020, 2, 521-524.	5.0	2
43	The Neutrally Charged Diarylurea Compound PQ401 Kills Antibiotic-Resistant and Antibiotic-Tolerant <i>Staphylococcus aureus</i> . <i>MBio</i> , 2020, 11, .	1.8	23
44	Mechanical properties and deformation mechanisms of gradient nanostructured metals and alloys. <i>Nature Reviews Materials</i> , 2020, 5, 706-723.	23.3	345
45	In-situ TEM study of dislocation interaction with twin boundary and retraction in twinned metallic nanowires. <i>Acta Materialia</i> , 2020, 196, 304-312.	3.8	25
46	Nanoscale precipitates as sustainable dislocation sources for enhanced ductility and high strength. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 5204-5209.	3.3	87
47	Intrinsic-to-extrinsic transition in fracture toughness through structural design: A lesson from nature. <i>Extreme Mechanics Letters</i> , 2020, 37, 100685.	2.0	7
48	Atomistic simulations of the tensile behavior of graphene fibers. <i>Extreme Mechanics Letters</i> , 2020, 37, 100699.	2.0	9
49	Nanoparticle elasticity regulates phagocytosis and cancer cell uptake. <i>Science Advances</i> , 2020, 6, eaaz4316.	4.7	143
50	Competition between shear localization and tensile detwinning in twinned nanowires. <i>Physical Review Materials</i> , 2020, 4, .	0.9	7
51	Fatigue of Metallic Glasses. <i>Applied Mechanics Reviews</i> , 2020, 72, .	4.5	23
52	Engineer Energy Dissipation in 3D Graphene Nanolattice Via Reversible Snap-Through Instability. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2020, 87, .	1.1	4
53	Atomistic Simulations of Fracture and Fatigue in Nanotwinned and Amorphous Materials. , 2020, , 1845-1868.		2
54	Wrinkling and ratcheting of a thin film on cyclically deforming plastic substrate: Mechanical instability of the solid-electrolyte interphase in Li-ion batteries. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 123, 103-118.	2.3	32

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55	A selective membrane-targeting repurposed antibiotic with activity against persistent methicillin-resistant <i>Staphylococcus aureus</i> . Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16529-16534.	3.3	117
56	Transition of Deformation Mechanisms in Single-Crystalline Metallic Nanowires. ACS Nano, 2019, 13, 9082-9090.	7.3	33
57	Theoretical strength and rubber-like behaviour in micro-sized pyrolytic carbon. Nature Nanotechnology, 2019, 14, 762-769.	15.6	80
58	Role of Nanoparticle Mechanical Properties in Cancer Drug Delivery. ACS Nano, 2019, 13, 7410-7424.	7.3	243
59	Mosquito bite prevention through graphene barrier layers. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18304-18309.	3.3	14
60	Energy-Ratio-Based Measure of Elastic Anisotropy. Physical Review Letters, 2019, 122, 045502.	2.9	15
61	Asymmetric cyclic response of tensile pre-deformed Cu with highly oriented nanoscale twins. Acta Materialia, 2019, 175, 477-486.	3.8	13
62	On the robustness of spider capture silk's adhesion. Extreme Mechanics Letters, 2019, 29, 100477.	2.0	5
63	Hydrogen embrittlement in metallic nanowires. Nature Communications, 2019, 10, 2004.	5.8	37
64	A viscoelastic adhesive epicardial patch for treating myocardial infarction. Nature Biomedical Engineering, 2019, 3, 632-643.	11.6	156
65	Lightweight, flaw-tolerant, and ultrastrong nanoarchitected carbon. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6665-6672.	3.3	158
66	Epicardial prestrained confinement and residual stresses: a newly observed heart ventricle confinement interface. Journal of the Royal Society Interface, 2019, 16, 20190028.	1.5	10
67	Temperature- and rigidity-mediated rapid transport of lipid nanovesicles in hydrogels. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5362-5369.	3.3	81
68	An independent derivation and verification of the voids nucleation failure mechanism: significance for materials failure. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180755.	1.0	7
69	Notch strengthening in nanoscale metallic glasses. Acta Materialia, 2019, 169, 147-154.	3.8	39
70	Model of nanoindentation size effect incorporating the role of elastic deformation. Journal of the Mechanics and Physics of Solids, 2019, 126, 245-255.	2.3	36
71	Transition from source- to stress-controlled plasticity in nanotwinned materials below a softening temperature. Npj Computational Materials, 2019, 5, .	3.5	17
72	Concentration dependent properties lead to plastic ratcheting in thin island electrodes on substrate under cyclic charging and discharging. Acta Materialia, 2019, 164, 261-271.	3.8	15

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73	Synergistic adhesion mechanisms of spider capture silk. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170894.	1.5	18
74	Packing of flexible 2D materials in vesicles. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 224001.	1.3	3
75	Anisotropy governs strain stiffening in nanotwinned-materials. <i>Nature Communications</i> , 2018, 9, 1586.	5.8	5
76	Wrinkling patterns in soft shells. <i>Soft Matter</i> , 2018, 14, 1681-1688.	1.2	12
77	Orientations of Cells on Compliant Substrates under Biaxial Stretches: A Theoretical Study. <i>Biophysical Journal</i> , 2018, 114, 701-710.	0.2	35
78	Phase field crystal modeling of grain boundary structures and growth in polycrystalline graphene. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 120, 36-48.	2.3	26
79	Test sample geometry for fracture toughness measurements of bulk metallic glasses. <i>Acta Materialia</i> , 2018, 145, 477-487.	3.8	43
80	Diffusion of rod-like nanoparticles in non-adhesive and adhesive porous polymeric gels. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 112, 431-457.	2.3	39
81	Interface affected zone for optimal strength and ductility in heterogeneous laminate. <i>Materials Today</i> , 2018, 21, 713-719.	8.3	357
82	A new class of synthetic retinoid antibiotics effective against bacterial persisters. <i>Nature</i> , 2018, 556, 103-107.	13.7	307
83	Pop-Up Delamination of Electrodes in Solid-State Batteries. <i>Journal of the Electrochemical Society</i> , 2018, 165, A618-A625.	1.3	12
84	Contact stiffness of regularly patterned multi-asperity interfaces. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 111, 277-289.	2.3	30
85	Cryogenic temperature toughening and strengthening due to gradient phase structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 712, 358-364.	2.6	12
86	Packing of flexible nanofibers in vesicles. <i>Extreme Mechanics Letters</i> , 2018, 19, 20-26.	2.0	15
87	Edge orientations of mechanically exfoliated anisotropic two-dimensional materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 112, 157-168.	2.3	22
88	Notch Strengthening in Nanoscale Metallic Glasses. <i>SSRN Electronic Journal</i> , 2018, , .	0.4	0
89	An evaluation of the failure modes transition and the Christensen ductile/brittle failure theory using molecular dynamics. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20180361.	1.0	10
90	Anomalous Tensile Detwinning in Twinned Metallic Nanowires. <i>Microscopy and Microanalysis</i> , 2018, 24, 1824-1825.	0.2	0

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91	Atomistic Simulations of Fracture and Fatigue in Nanotwinned and Amorphous Materials. , 2018, , 1-24.		1
92	Extra strengthening and work hardening in gradient nanotwinned metals. Science, 2018, 362, .	6.0	465
93	Functional gradient effects on the energy absorption of spider orb webs. Applied Physics Letters, 2018, 113, .	1.5	21
94	Regain Strain-Hardening in High-Strength Metals by Nanofiller Incorporation at Grain Boundaries. Nano Letters, 2018, 18, 6255-6264.	4.5	74
95	Mechanics of cellular packing of nanorods with finite and non-uniform diameters. Nanoscale, 2018, 10, 14090-14099.	2.8	8
96	The asbestos-carbon nanotube analogy: An update. Toxicology and Applied Pharmacology, 2018, 361, 68-80.	1.3	70
97	Departing from the mutual exclusiveness of strength and ductility in nanocrystalline metals with vacancy induced plasticity. Scripta Materialia, 2018, 157, 39-43.	2.6	6
98	Toughening Graphene by Integrating Carbon Nanotubes. ACS Nano, 2018, 12, 7901-7910.	7.3	52
99	Discovery and Optimization of nTZDpa as an Antibiotic Effective Against Bacterial Persisters. ACS Infectious Diseases, 2018, 4, 1540-1545.	1.8	33
100	Atomistic simulations of superplasticity and amorphization of nanocrystalline anatase TiO ₂ . Extreme Mechanics Letters, 2018, 22, 131-137.	2.0	7
101	Three-Dimensional High-Entropy Alloy-Polymer Composite Nanolattices That Overcome the Strength-Recoverability Trade-off. Nano Letters, 2018, 18, 4247-4256.	4.5	108
102	Rapid transport of deformation-tuned nanoparticles across biological hydrogels and cellular barriers. Nature Communications, 2018, 9, 2607.	5.8	186
103	Thermally assisted peeling of an elastic strip in adhesion with a substrate via molecular bonds. Journal of the Mechanics and Physics of Solids, 2017, 101, 197-208.	2.3	36
104	A review on mechanics and mechanical properties of 2D materials-Graphene and beyond. Extreme Mechanics Letters, 2017, 13, 42-77.	2.0	920
105	A Catalytic Etching-Wetting-Dewetting Mechanism in the Formation of Hollow Graphitic Carbon Fiber. Chem, 2017, 2, 299-310.	5.8	44
106	Hardening and toughening mechanisms in nanotwinned ceramics. Scripta Materialia, 2017, 133, 105-112.	2.6	38
107	Budding of an Adhesive Elastic Particle out of a Lipid Vesicle. ACS Biomaterials Science and Engineering, 2017, 3, 2954-2961.	2.6	10
108	A non-equilibrium thermodynamic model for tumor extracellular matrix with enzymatic degradation. Journal of the Mechanics and Physics of Solids, 2017, 104, 32-56.	2.3	32

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109	Atomistic origin of size effects in fatigue behavior of metallic glasses. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 104, 84-95.	2.3	68
110	Bioinspired Mechano-sensitive Macroporous Ceramic Sponge for Logical Drug and Cell Delivery. <i>Advanced Science</i> , 2017, 4, 1600410.	5.6	21
111	Size and strain rate effects in tensile strength of penta-twinned Ag nanowires. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2017, 33, 792-800.	1.5	17
112	Stress effects on lithiation in silicon. <i>Nano Energy</i> , 2017, 38, 486-493.	8.2	50
113	Scalable Synthesis of 2D Si Nanosheets. <i>Advanced Materials</i> , 2017, 29, 1701777.	11.1	77
114	Ultralight, scalable, and high-temperature-resilient ceramic nanofiber sponges. <i>Science Advances</i> , 2017, 3, e1603170.	4.7	207
115	Remarkable enhancement in failure stress and strain of penta-graphene via chemical functionalization. <i>Nano Research</i> , 2017, 10, 3865-3874.	5.8	24
116	Lithiation-enhanced charge transfer and sliding strength at the silicon-graphene interface: A first-principles study. <i>Acta Mechanica Solida Sinica</i> , 2017, 30, 254-262.	1.0	9
117	Kinetics of receptor-mediated endocytosis of elastic nanoparticles. <i>Nanoscale</i> , 2017, 9, 454-463.	2.8	111
118	Processing effects on fracture toughness of metallic glasses. <i>Scripta Materialia</i> , 2017, 130, 152-156.	2.6	38
119	History-independent cyclic response of nanotwinned metals. <i>Nature</i> , 2017, 551, 214-217.	13.7	195
120	Multiscale crack initiator promoted super-low ice adhesion surfaces. <i>Soft Matter</i> , 2017, 13, 6562-6568.	1.2	150
121	Gas-like adhesion of two-dimensional materials onto solid surfaces. <i>Scientific Reports</i> , 2017, 7, 159.	1.6	15
122	Determining the Gaussian Modulus and Edge Properties of 2D Materials: From Graphene to Lipid Bilayers. <i>Physical Review Letters</i> , 2017, 119, 068002.	2.9	29
123	Metallic glass-based chiral nanolattice: Light weight, auxeticity, and superior mechanical properties. <i>Materials Today</i> , 2017, 20, 569-576.	8.3	72
124	Deformation and Chemomechanical Degradation at Solid Electrolyte-Electrode Interfaces. <i>ACS Energy Letters</i> , 2017, 2, 1729-1733.	8.8	22
125	Atomistic simulation for deforming complex alloys with application toward TWIP steel and associated physical insights. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 98, 290-308.	2.3	46
126	Anomalous Tensile Detwinning in Twinned Nanowires. <i>Physical Review Letters</i> , 2017, 119, 256101.	2.9	47

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127	Wrinkling micropatterns regulated by a hard skin layer with a periodic stiffness distribution on a soft material. <i>Applied Physics Letters</i> , 2016, 108, 021903.	1.5	34
128	Gradient plasticity in gradient nano-grained metals. <i>Extreme Mechanics Letters</i> , 2016, 8, 213-219.	2.0	176
129	Fracture, fatigue, and creep of nanotwinned metals. <i>MRS Bulletin</i> , 2016, 41, 298-304.	1.7	46
130	Rotation-Facilitated Rapid Transport of Nanorods in Mucosal Tissues. <i>Nano Letters</i> , 2016, 16, 7176-7182.	4.5	140
131	Cycling of a Lithium-Ion Battery with a Silicon Anode Drives Large Mechanical Actuation. <i>Advanced Materials</i> , 2016, 28, 10236-10243.	11.1	40
132	A Tensegrity Model of Cell Reorientation on Cyclically Stretched Substrates. <i>Biophysical Journal</i> , 2016, 111, 1478-1486.	0.2	65
133	Incorporation of Soft Particles into Lipid Vesicles: Effects of Particle Size and Elasticity. <i>Langmuir</i> , 2016, 32, 13252-13260.	1.6	36
134	Strength gradient enhances fatigue resistance of steels. <i>Scientific Reports</i> , 2016, 6, 22156.	1.6	43
135	Negative Thermophoresis in Concentric Carbon Nanotube Nanodevices. <i>Nano Letters</i> , 2016, 16, 6396-6402.	4.5	31
136	Tension-compression asymmetry in the binding affinity of membrane-anchored receptors and ligands. <i>Physical Review E</i> , 2016, 93, 032411.	0.8	4
137	Nanomechanical mechanism for lipid bilayer damage induced by carbon nanotubes confined in intracellular vesicles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12374-12379.	3.3	109
138	Biochemomechanical poroelastic theory of avascular tumor growth. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 94, 409-432.	2.3	61
139	Anisotropic Size-Dependent Plasticity in Face-Centered Cubic Micropillars Under Torsion. <i>Jom</i> , 2016, 68, 253-260.	0.9	15
140	Self-generated concentration and modulus gradient coating design to protect Si nano-wire electrodes during lithiation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3706-3715.	1.3	42
141	Three-Dimensional Graphene-Based Microbarriers for Controlling Release and Reactivity in Colloidal Liquid Phases. <i>ACS Nano</i> , 2016, 10, 2268-2276.	7.3	26
142	Snapping instability in prismatic tensegrities under torsion. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2016, 37, 275-288.	1.9	16
143	Smaller and stronger. <i>Nature Materials</i> , 2016, 15, 373-374.	13.3	106
144	Nanotwin-governed toughening mechanism in hierarchically structured biological materials. <i>Nature Communications</i> , 2016, 7, 10772.	5.8	127

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145	Biological and environmental interactions of emerging two-dimensional nanomaterials. <i>Chemical Society Reviews</i> , 2016, 45, 1750-1780.	18.7	216
146	Frequency-Preserved Acoustic Diode Model with High Forward-Power-Transmission Rate. <i>Physical Review Applied</i> , 2015, 3, .	1.5	63
147	Stochastic behaviors in plastic deformation of face-centered cubic micropillars governed by surface nucleation and truncated source operation. <i>Acta Materialia</i> , 2015, 95, 176-183.	3.8	51
148	Atomistic modelling of deformation and failure mechanisms in nanostructured materials. <i>National Science Review</i> , 2015, 2, 133-136.	4.6	10
149	Edge Forces in Contacting Graphene Layers. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	1.1	20
150	Nanoscale Directional Motion towards Regions of Stiffness. <i>Physical Review Letters</i> , 2015, 114, 015504.	2.9	72
151	Cell interaction with graphene microsheets: near-orthogonal cutting versus parallel attachment. <i>Nanoscale</i> , 2015, 7, 5457-5467.	2.8	60
152	Regulated Breathing Effect of Silicon Negative Electrode for Dramatically Enhanced Performance of Li-ion Battery. <i>Advanced Functional Materials</i> , 2015, 25, 1426-1433.	7.8	149
153	Recoverable plasticity in penta-twinned metallic nanowires governed by dislocation nucleation and retraction. <i>Nature Communications</i> , 2015, 6, 5983.	5.8	135
154	Biomechanical tactics of chiral growth in emergent aquatic macrophytes. <i>Scientific Reports</i> , 2015, 5, 12610.	1.6	25
155	Torsional Detwinning Domino in Nanotwinned One-Dimensional Nanostructures. <i>Nano Letters</i> , 2015, 15, 6082-6087.	4.5	18
156	Physical Principles of Nanoparticle Cellular Endocytosis. <i>ACS Nano</i> , 2015, 9, 8655-8671.	7.3	852
157	Kinetics and fracture resistance of lithiated silicon nanostructure pairs controlled by their mechanical interaction. <i>Nature Communications</i> , 2015, 6, 7533.	5.8	107
158	Effect of lateral dimension on the surface wrinkling of a thin film on compliant substrate induced by differential growth/swelling. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 83, 129-145.	2.3	29
159	Modeling Active Mechanosensing in Cell-Matrix Interactions. <i>Annual Review of Biophysics</i> , 2015, 44, 1-32.	4.5	77
160	Large anelasticity and associated energy dissipation in single-crystalline nanowires. <i>Nature Nanotechnology</i> , 2015, 10, 687-691.	15.6	70
161	Origin of anomalous inverse notch effect in bulk metallic glasses. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 84, 85-94.	2.3	67
162	Dynamics of Cellular Reorientation on a Substrate under Biaxial Cyclic Stretches. <i>Nano Letters</i> , 2015, 15, 5525-5529.	4.5	18

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163	Toughening Graphene With Topological Defects: A Perspective. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	1.1	45
164	A Plastic Deformation Mechanism by Necklace Dislocations Near Crack-like Defects in Nanotwinned Metals. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	1.1	16
165	A finite element method to compute three-dimensional equilibrium configurations of fluid membranes: Optimal parameterization, variational formulation and applications. <i>Journal of Computational Physics</i> , 2015, 297, 266-294.	1.9	18
166	Cell membrane wrapping of a spherical thin elastic shell. <i>Soft Matter</i> , 2015, 11, 1107-1115.	1.2	74
167	Cyclic Deformation in Metallic Glasses. <i>Nano Letters</i> , 2015, 15, 7010-7015.	4.5	89
168	Brittle versus ductile fracture mechanism transition in amorphous lithiated silicon: From intrinsic nanoscale cavitation to shear banding. <i>Nano Energy</i> , 2015, 18, 89-96.	8.2	49
169	Fracture of graphene: a review. <i>International Journal of Fracture</i> , 2015, 196, 1-31.	1.1	144
170	The primary bilayer ruga-phase diagram I: Localizations in ruga evolution. <i>Extreme Mechanics Letters</i> , 2015, 4, 76-82.	2.0	49
171	Employing nanoscale surface morphologies to improve interfacial adhesion between solid electrolytes and Li ion battery cathodes. <i>Acta Materialia</i> , 2015, 98, 175-181.	3.8	17
172	Designing graphene structures with controlled distributions of topological defects: A case study of toughness enhancement in graphene ruga. <i>Extreme Mechanics Letters</i> , 2014, 1, 3-8.	2.0	101
173	Tunable Mechanical Behavior of Carbon Nanoscroll Crystals Under Uniaxial Lateral Compression. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014, 81, .	1.1	12
174	Biomimetic study of rolling transport through smooth muscle contraction. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014, 123, 49-52.	2.5	10
175	Phase diagrams and morphological evolution in wrapping of rod-shaped elastic nanoparticles by cell membrane: A two-dimensional study. <i>Physical Review E</i> , 2014, 89, 062712.	0.8	56
176	Defects controlled wrinkling and topological design in graphene. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 67, 2-13.	2.3	130
177	Evading the strengthâ€“ductility trade-off dilemma in steel through gradient hierarchical nanotwins. <i>Nature Communications</i> , 2014, 5, 3580.	5.8	739
178	Probing mechanical principles of cellâ€“nanomaterial interactions. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 62, 312-339.	2.3	61
179	A Universal Law for Cell Uptake of One-Dimensional Nanomaterials. <i>Nano Letters</i> , 2014, 14, 1049-1055.	4.5	110
180	An accordion model integrating self-cleaning, strong attachment and easy detachment functionalities of gecko adhesion. <i>Journal of Adhesion Science and Technology</i> , 2014, 28, 226-239.	1.4	13

#	ARTICLE	IF	CITATIONS
181	Cytotoxicity of graphene: recent advances and future perspective. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2014, 6, 452-474.	3.3	101
182	Volumetric Deformation of Live Cells Induced by Pressure-Activated Cross-Membrane Ion Transport. Physical Review Letters, 2014, 113, 118101.	2.9	47
183	Ultra-strong collagen-mimic carbon nanotube bundles. Carbon, 2014, 77, 1040-1053.	5.4	30
184	Pressure Sensitive Adhesion of an Elastomeric Protein Complex Extracted From Squid Ring Teeth. Advanced Functional Materials, 2014, 24, 6227-6233.	7.8	38
185	A Jogged Dislocation Governed Strengthening Mechanism in Nanotwinned Metals. Nano Letters, 2014, 14, 5075-5080.	4.5	92
186	Microscopic model for fracture of crystalline Si nanopillars during lithiation. Journal of Power Sources, 2014, 255, 274-282.	4.0	71
187	USNCTAM perspectives on mechanics in medicine. Journal of the Royal Society Interface, 2014, 11, 20140301.	1.5	35
188	Some basic questions on mechanosensing in cell-substrate interaction. Journal of the Mechanics and Physics of Solids, 2014, 70, 116-135.	2.3	97
189	Tuning Molecular Adhesion via Material Anisotropy. Advanced Functional Materials, 2013, 23, 4729-4738.	7.8	11
190	Role of Nanoparticle Geometry in Endocytosis: Laying Down to Stand Up. Nano Letters, 2013, 13, 4546-4550.	4.5	221
191	Cellular entry of graphene nanosheets: the role of thickness, oxidation and surface adsorption. RSC Advances, 2013, 3, 15776.	1.7	118
192	On the notch sensitivity of CuZr metallic glasses. Applied Physics Letters, 2013, 103, .	1.5	68
193	Adhesive contact on power-law graded elastic solids: The JKR-DMT transition using a double-Hertz model. Journal of the Mechanics and Physics of Solids, 2013, 61, 2473-2492.	2.3	47
194	Strengthening Brittle Semiconductor Nanowires through Stacking Faults: Insights from in Situ Mechanical Testing. Nano Letters, 2013, 13, 4369-4373.	4.5	45
195	Graphene microsheets enter cells through spontaneous membrane penetration at edge asperities and corner sites. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12295-12300.	3.3	665
196	Critical film thickness for fracture in thin-film electrodes on substrates in the presence of interfacial sliding. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 074008.	0.8	24
197	Plastic anisotropy and associated deformation mechanisms in nanotwinned metals. Acta Materialia, 2013, 61, 217-227.	3.8	272
198	Cavitation in materials with distributed weak zones: Implications on the origin of brittle fracture in metallic glasses. Journal of the Mechanics and Physics of Solids, 2013, 61, 1047-1064.	2.3	39

#	ARTICLE	IF	CITATIONS
199	Shear bands mediate cavitation in brittle metallic glasses. <i>Scripta Materialia</i> , 2013, 68, 567-570.	2.6	38
200	Transformation induced toughening and flaw tolerance in pure nanocrystalline aluminum. <i>International Journal of Plasticity</i> , 2013, 44, 121-128.	4.1	10
201	Cracks fail to intensify stress in nacreous composites. <i>Composites Science and Technology</i> , 2013, 81, 24-29.	3.8	66
202	Mechanical properties and scaling laws of nanoporous gold. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	171
203	Li Segregation Induces Structure and Strength Changes at the Amorphous Si/Cu Interface. <i>Nano Letters</i> , 2013, 13, 4759-4768.	4.5	75
204	Interior and Edge Elastic Waves in Graphene. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	1.1	2
205	Surface Energy-Controlled Self-Collapse of Carbon Nanotube Bundles With Large and Reversible Volumetric Deformation. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	1.1	6
206	Flaw Tolerance in a Viscoelastic Strip. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	1.1	3
207	Elastic Bounds of Bioinspired Nanocomposites. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	1.1	26
208	A Numerical Method for Simulating Nonlinear Mechanical Responses of Tensegrity Structures Under Large Deformations. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	1.1	27
209	<i>Ruga</i> mechanics of creasing: from instantaneous to setback creases. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013, 469, 20120753.	1.0	52
210	A Mechanochemical Model of Cell Reorientation on Substrates under Cyclic Stretch. <i>PLoS ONE</i> , 2013, 8, e65864.	1.1	37
211	Mechanics of Self-Similar Hierarchical Adhesive Structures Inspired by Gecko Feet. , 2013, , 201-226.		1
212	Sliding-induced non-uniform pre-tension governs robust and reversible adhesion: a revisit of adhesion mechanisms of geckos. <i>Journal of the Royal Society Interface</i> , 2012, 9, 283-291.	1.5	34
213	Effect of loading conditions on the dissociation behaviour of catch bond clusters. <i>Journal of the Royal Society Interface</i> , 2012, 9, 928-937.	1.5	23
214	Specific adhesion of a soft elastic body on a wavy surface. <i>Theoretical and Applied Mechanics Letters</i> , 2012, 2, 014002.	1.3	9
215	Ratcheting of silicon island electrodes on substrate due to cyclic intercalation. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	43
216	Stretch-induced softening of bending rigidity in graphene. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	31

#	ARTICLE	IF	CITATIONS
217	Self-equilibrium and super-stability of truncated regular polyhedral tensegrity structures: a unified analytical solution. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012, 468, 3323-3347.	1.0	40
218	Axisymmetric Adhesive Contact under Equibiaxial Stretching. <i>Journal of Adhesion</i> , 2012, 88, 134-144.	1.8	15
219	Modified Stoney Equation for Patterned Thin Film Electrodes on Substrates in the Presence of Interfacial Sliding. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012, 79, .	1.1	28
220	Special Issue Honoring Professor James R. Rice. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012, 79, .	1.1	1
221	Compressed wormlike chain moving out of confined space: A model of DNA ejection from bacteriophage. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2012, 28, 1219-1226.	1.5	8
222	Self-healing of fractured one-dimensional brittle nanostructures. <i>Europhysics Letters</i> , 2012, 98, 16010.	0.7	3
223	Controlled Release and Assembly of Drug Nanoparticles via pH-Responsive Polymeric Micelles: A Theoretical Study. <i>Journal of Physical Chemistry B</i> , 2012, 116, 6003-6009.	1.2	18
224	Direct influence of residual stress on the bending stiffness of cantilever beams. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012, 468, 2595-2613.	1.0	14
225	Discontinuous crack-bridging model for fracture toughness analysis of nacre. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 1400-1419.	2.3	233
226	Mechanics of thermophoretic and thermally induced edge forces in carbon nanotube nanodevices. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 1676-1687.	2.3	55
227	On the mechanics of integrin clustering during cell-substrate adhesion. <i>Acta Mechanica Solida Sinica</i> , 2012, 25, 467-472.	1.0	6
228	Self-healing in fractured GaAs nanowires. <i>Acta Materialia</i> , 2012, 60, 5593-5600.	3.8	9
229	Anomalous Flexural Behaviors of Microtubules. <i>Biophysical Journal</i> , 2012, 102, 1793-1803.	0.2	14
230	Competing elastic and adhesive interactions govern deformation behaviors of aligned carbon nanotube arrays. <i>Applied Physics Letters</i> , 2012, 101, 053105.	1.5	11
231	Strain-Controlled Switching of Hierarchically Wrinkled Surfaces between Superhydrophobicity and Superhydrophilicity. <i>Langmuir</i> , 2012, 28, 2753-2760.	1.6	41
232	Influence of microstructures on mechanical behaviours of SiC nanowires: a molecular dynamics study. <i>Nanotechnology</i> , 2012, 23, 025703.	1.3	47
233	Flaw Insensitive Fracture in Nanocrystalline Graphene. <i>Nano Letters</i> , 2012, 12, 4605-4610.	4.5	221
234	Cyclic Stretch Induces Cell Reorientation on Substrates by Destabilizing Catch Bonds in Focal Adhesions. <i>PLoS ONE</i> , 2012, 7, e48346.	1.1	46

#	ARTICLE	IF	CITATIONS
235	Deformation mechanisms in nanotwinned metal nanopillars. <i>Nature Nanotechnology</i> , 2012, 7, 594-601.	15.6	385
236	On the characteristic length scales associated with plastic deformation in metallic glasses. <i>Applied Physics Letters</i> , 2012, 100, 201901.	1.5	25
237	Mechanics of morphological instabilities and surface wrinkling in soft materials: a review. <i>Soft Matter</i> , 2012, 8, 5728.	1.2	620
238	Nanowire Failure: Long = Brittle and Short = Ductile. <i>Nano Letters</i> , 2012, 12, 910-914.	4.5	104
239	Surface-structure-regulated penetration of nanoparticles across a cell membrane. <i>Nanoscale</i> , 2012, 4, 3768.	2.8	172
240	Effects of functionally graded materials on dynamics of molecular bond clusters. <i>Science China: Physics, Mechanics and Astronomy</i> , 2012, 55, 980-988.	2.0	8
241	In situ observations of crack arrest and bridging by nanoscale twins in copper thin films. <i>Acta Materialia</i> , 2012, 60, 2959-2972.	3.8	77
242	Plastic deformation mechanism in nanotwinned metals: An insight from molecular dynamics and mechanistic modeling. <i>Scripta Materialia</i> , 2012, 66, 843-848.	2.6	205
243	Method to deduce the critical size for interfacial delamination of patterned electrode structures and application to lithiation of thin-film silicon islands. <i>Journal of Power Sources</i> , 2012, 206, 357-366.	4.0	98
244	Substrate-supported carbon nanoscroll oscillator. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 955-959.	1.3	20
245	Simulating fracture propagation in rock and concrete by an augmented virtual internal bond method. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012, 36, 459-482.	1.7	32
246	Ab Initio Study on the Size and Chirality Effects on the Encapsulation of Tetrafluorotetracyano-quinodimethane inside Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5280-5285.	1.5	4
247	Stress Mitigation during the Lithiation of Patterned Amorphous Si Islands. <i>Journal of the Electrochemical Society</i> , 2011, 159, A38-A43.	1.3	119
248	Is Stress Concentration Relevant for Nanocrystalline Metals?. <i>Nano Letters</i> , 2011, 11, 2510-2516.	4.5	69
249	Surface Wrinkling Patterns on a Core-Shell Soft Sphere. <i>Physical Review Letters</i> , 2011, 106, 234301.	2.9	207
250	Motor Force Homeostasis in Skeletal Muscle Contraction. <i>Biophysical Journal</i> , 2011, 101, 396-403.	0.2	23
251	Effects of H-, N-, and (H, N)-Doping on the Photocatalytic Activity of TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2011, 115, 12224-12231.	1.5	144
252	Ab Initio Study on a Novel Photocatalyst: Functionalized Graphitic Carbon Nitride Nanotube. <i>ACS Catalysis</i> , 2011, 1, 99-104.	5.5	118

#	ARTICLE	IF	CITATIONS
253	On optimal hierarchy of load-bearing biological materials. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 519-525.	1.2	183
254	Cell entry of one-dimensional nanomaterials occurs by tip recognition and rotation. Nature Nanotechnology, 2011, 6, 714-719.	15.6	416
255	Effects of contact surface shape on lifetime of cellular focal adhesion. Journal of Mechanics of Materials and Structures, 2011, 6, 495-510.	0.4	7
256	Modeling grain size dependent optimal twin spacing for achieving ultimate high strength and related high ductility in nanotwinned metals. Acta Materialia, 2011, 59, 5544-5557.	3.8	193
257	Constitutive behavior of pressurized carbon nanoscrolls. International Journal of Fracture, 2011, 171, 163-168.	1.1	22
258	Continuum and atomistic models of strongly coupled diffusion, stress, and solute concentration. Journal of Power Sources, 2011, 196, 361-370.	4.0	173
259	Mechanics of non-slipping adhesive contact on a power-law graded elastic half-space. International Journal of Solids and Structures, 2011, 48, 2565-2575.	1.3	37
260	Modeling frequency- and temperature-invariant dissipative behaviors of randomly entangled carbon nanotube networks under cyclic loading. Nano Research, 2011, 4, 1191-1198.	5.8	47
261	Metal-functionalized single-walled graphitic carbon nitride nanotubes: a first-principles study on magnetic property. Nanoscale Research Letters, 2011, 6, 97.	3.1	18
262	Interface Engineering of Layer-by-Layer Stacked Graphene Anodes for High-Performance Organic Solar Cells. Advanced Materials, 2011, 23, 1514-1518.	11.1	489
263	Cohesive modeling of crack nucleation in a cylindrical electrode under axisymmetric diffusion induced stresses. International Journal of Solids and Structures, 2011, 48, 2304-2309.	1.3	85
264	Brownian dynamics simulations of charged semiflexible polymers confined to curved surfaces. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 174-179.	1.5	9
265	Surface wrinkling of mucosa induced by volumetric growth: Theory, simulation and experiment. Journal of the Mechanics and Physics of Solids, 2011, 59, 758-774.	2.3	196
266	Improved cycling stability of silicon thin film electrodes through patterning for high energy density lithium batteries. Journal of Power Sources, 2011, 196, 1409-1416.	4.0	207
267	A nonlinear characteristic regime of biomembrane force probe. Journal of Biomechanics, 2011, 44, 662-668.	0.9	3
268	Cellular Uptake of Elastic Nanoparticles. Physical Review Letters, 2011, 107, 098101.	2.9	363
269	Thermal-Induced Edge Barriers and Forces in Interlayer Interaction of Concentric Carbon Nanotubes. Physical Review Letters, 2011, 107, 105502.	2.9	81
270	On hyperelastic stress-strain law of F-actin bundles. Theoretical and Applied Mechanics Letters, 2011, 1, 014003.	1.3	3

#	ARTICLE	IF	CITATIONS
271	Publisher's Note: Role of modulus mismatch on crack propagation and toughness enhancement in bioinspired composites [Phys. Rev. E 84, 015102(R) (2011)]. Physical Review E, 2011, 84, .	0.8	0
272	Atomic Scale Fluctuations Govern Brittle Fracture and Cavitation Behavior in Metallic Glasses. Physical Review Letters, 2011, 107, 215501.	2.9	177
273	Role of modulus mismatch on crack propagation and toughness enhancement in bioinspired composites. Physical Review E, 2011, 84, 015102.	0.8	20
274	Surface-adsorption-induced bending behaviors of graphene nanoribbons. Applied Physics Letters, 2011, 98, 121909.	1.5	35
275	Probing mechanical principles of focal contacts in cell-matrix adhesion with a coupled stochastic-elastic modelling framework. Journal of the Royal Society Interface, 2011, 8, 1217-1232.	1.5	85
276	Understanding large plastic deformation of SiC nanowires at room temperature. Europhysics Letters, 2011, 95, 63003.	0.7	9
277	On Adhesion Enhancement Due to Concave Surface Geometries. Journal of Adhesion, 2011, 87, 194-213.	1.8	14
278	Gibson-Soil-Like Materials Achieve Flaw-Tolerant Adhesion. Journal of Computational and Theoretical Nanoscience, 2010, 7, 1299-1305.	0.4	33
279	Tunable Core Size of Carbon Nanoscrolls. Journal of Computational and Theoretical Nanoscience, 2010, 7, 517-521.	0.4	70
280	Persistence Length of Microtubules Based on a Continuum Anisotropic Shell Model. Journal of Computational and Theoretical Nanoscience, 2010, 7, 1227-1237.	0.4	13
281	Dynamic behaviors of mode III interfacial crack under a constant loading rate. Continuum Mechanics and Thermodynamics, 2010, 22, 515-530.	1.4	5
282	Size and shape dependent steady-state pull-off force in molecular adhesion between soft elastic materials. International Journal of Fracture, 2010, 166, 13-19.	1.1	20
283	Structure-based design of carbon nanotubes as HIV-1 protease inhibitors: Atomistic and coarse-grained simulations. Journal of Molecular Graphics and Modelling, 2010, 29, 171-177.	1.3	37
284	Dislocation shielding of a cohesive crack. Journal of the Mechanics and Physics of Solids, 2010, 58, 530-541.	2.3	25
285	Mechanical properties of unidirectional nanocomposites with non-uniformly or randomly staggered platelet distribution. Journal of the Mechanics and Physics of Solids, 2010, 58, 1646-1660.	2.3	162
286	On intrinsic brittleness and ductility of intergranular fracture along symmetrical tilt grain boundaries in copper. Acta Materialia, 2010, 58, 2293-2299.	3.8	69
287	Dislocation shielding and crack tip decohesion at the atomic scale. Acta Materialia, 2010, 58, 5933-5940.	3.8	19
288	Cohesive modeling of crack nucleation under diffusion induced stresses in a thin strip: Implications on the critical size for flaw tolerant battery electrodes. International Journal of Solids and Structures, 2010, 47, 1424-1434.	1.3	176

#	ARTICLE	IF	CITATIONS
289	A Monte Carlo form-finding method for large scale regular and irregular tensegrity structures. <i>International Journal of Solids and Structures</i> , 2010, 47, 1888-1898.	1.3	103
290	Tunable Water Channels with Carbon Nanoscrolls. <i>Small</i> , 2010, 6, 739-744.	5.2	110
291	Mechanics of carbon nanoscrolls: a review. <i>Acta Mechanica Solida Sinica</i> , 2010, 23, 484-497.	1.0	40
292	Dislocation nucleation governed softening and maximum strength in nano-twinned metals. <i>Nature</i> , 2010, 464, 877-880.	13.7	956
293	Soft Matrices Suppress Cooperative Behaviors among Receptor-Ligand Bonds in Cell Adhesion. <i>PLoS ONE</i> , 2010, 5, e12342.	1.1	43
294	Effect of frame stiffness on the deformation behavior of bulk metallic glass. <i>Journal of Materials Research</i> , 2010, 25, 1958-1962.	1.2	12
295	Humidity induced softening leads to apparent capillary effect in gecko adhesion. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1274, 1.	0.1	0
296	Controllable magnetic property of SiC by anion-cation codoping. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	27
297	A surface locking instability for atomic intercalation into a solid electrode. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	75
298	Analytical model and molecular dynamics simulations of the size dependence of flow stress in amorphous intermetallic nanowires at temperatures near the glass transition. <i>Physical Review B</i> , 2010, 81, .	1.1	15
299	Constructing tensegrity structures from one-bar elementary cells. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2010, 466, 45-61.	1.0	36
300	AN ALTERNATIVE EXPLANATION OF THE EFFECT OF HUMIDITY IN GECKO ADHESION: STIFFNESS REDUCTION ENHANCES ADHESION ON A ROUGH SURFACE. <i>International Journal of Applied Mechanics</i> , 2010, 02, 1-9.	1.3	26
301	Mechanical Principle of Enhancing Cell-Substrate Adhesion via Pre-Tension in the Cytoskeleton. <i>Biophysical Journal</i> , 2010, 98, 2154-2162.	0.2	21
302	Nano to Micro Structural Hierarchy Is Crucial for Stable Superhydrophobic and Water-Repellent Surfaces. <i>Langmuir</i> , 2010, 26, 4984-4989.	1.6	196
303	Mechanical Principles of Biological Nanocomposites. <i>Annual Review of Materials Research</i> , 2010, 40, 77-100.	4.3	165
304	Learning from nature about principles of hierarchical materials. , 2010, , .		3
305	Analytical model of transient compressive stress evolution during growth of high diffusivity thin films on substrates. <i>Philosophical Magazine</i> , 2010, 90, 3037-3048.	0.7	5
306	A translational nanoactuator based on carbon nanoscrolls on substrates. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	81

#	ARTICLE	IF	CITATIONS
307	Size and shape dependent steady-state pull-off force in molecular adhesion between soft elastic materials. , 2010, , 13-19.		0
308	10.1063/1.3302284.1. , 2010, , .		0
309	Computational modeling for cell spreading on a substrate mediated by specific interactions, long-range recruiting interactions, and diffusion of binders. Physical Review E, 2009, 79, 061907.	0.8	22
310	Notch insensitive fracture in nanoscale thin films. Applied Physics Letters, 2009, 94, .	1.5	61
311	Transient Stress Concentration in Diffusional Creep of a Thin Foil with Heterogeneous Grain Boundary Diffusivity. Mathematics and Mechanics of Solids, 2009, 14, 179-191.	1.5	3
312	Mechanical Principles of a Self-Similar Hierarchical Structure. Materials Research Society Symposia Proceedings, 2009, 1188, 23.	0.1	4
313	Competing grain-boundary- and dislocation-mediated mechanisms in plastic strain recovery in nanocrystalline aluminum. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16108-16113.	3.3	120
314	FORMATION OF CRACK-LIKE DIFFUSION WEDGES AND COMPRESSIVE STRESS EVOLUTION DURING THIN FILM GROWTH WITH INHOMOGENEOUS GRAIN BOUNDARY DIFFUSIVITY. International Journal of Applied Mechanics, 2009, 01, 1-19.	1.3	10
315	Pre-tension generates strongly reversible adhesion of a spatula pad on substrate. Journal of the Royal Society Interface, 2009, 6, 529-537.	1.5	109
316	Geometry- and velocity-constrained cohesive zones and mixed-mode fracture/adhesion energy of interfaces with periodic cohesive interactions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 1043-1053.	1.0	11
317	A phase field method for simulating morphological evolution of vesicles in electric fields. Journal of Computational Physics, 2009, 228, 4162-4181.	1.9	29
318	A computational modeling for micropipette-manipulated cell detachment from a substrate mediated by receptor-ligand binding. Journal of the Mechanics and Physics of Solids, 2009, 57, 205-220.	2.3	21
319	Mechanics of adhesive contact on a power-law graded elastic half-space. Journal of the Mechanics and Physics of Solids, 2009, 57, 1437-1448.	2.3	81
320	Numerical simulations of crack deflection at a twist-misoriented grain boundary between two ideally brittle crystals. Journal of the Mechanics and Physics of Solids, 2009, 57, 1865-1879.	2.3	18
321	A characteristic length for stress transfer in the nanostructure of biological composites. Composites Science and Technology, 2009, 69, 1160-1164.	3.8	97
322	Deformation gradients for continuum mechanical analysis of atomistic simulations. International Journal of Solids and Structures, 2009, 46, 238-253.	1.3	120
323	Effects of interfacial friction on flaw tolerant adhesion between two dissimilar elastic solids. International Journal of Solids and Structures, 2009, 46, 860-870.	1.3	3
324	Orientation-dependent adhesion strength of a rigid cylinder in non-slipping contact with a transversely isotropic half-space. International Journal of Solids and Structures, 2009, 46, 1167-1175.	1.3	16

#	ARTICLE	IF	CITATIONS
325	An instability index of shear band for plasticity in metallic glasses. <i>Acta Materialia</i> , 2009, 57, 1367-1372.	3.8	182
326	Gigahertz breathing oscillators based on carbon nanoscrolls. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	59
327	Lifetime and Strength of Periodic Bond Clusters between Elastic Media under Inclined Loading. <i>Biophysical Journal</i> , 2009, 97, 2438-2445.	0.2	81
328	Effects of Capillary Condensation in Adhesion between Rough Surfaces. <i>Langmuir</i> , 2009, 25, 11727-11731.	1.6	32
329	Molecular-dynamics studies of competitive replacement in peptideâ€™nanotube assembly for control of drug release. <i>Nanotechnology</i> , 2009, 20, 145101.	1.3	20
330	Self-assembled lipid nanostructures encapsulating nanoparticles in aqueous solution. <i>Soft Matter</i> , 2009, 5, 3977.	1.2	19
331	Determination of the microscale stressâ€™strain curve and strain gradient effect from the micro-bend of ultra-thin beams. <i>International Journal of Plasticity</i> , 2008, 24, 1606-1624.	4.1	16
332	Coarse grained molecular dynamics and theoretical studies of carbon nanotubes entering cell membrane. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2008, 24, 161-169.	1.5	85
333	An effective beadâ€™spring model for polymer simulation. <i>Journal of Computational Physics</i> , 2008, 227, 2794-2807.	1.9	17
334	An elasticâ€™viscoplastic model of deformation in nanocrystalline metals based on coupled mechanisms in grain boundaries and grain interiors. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 478, 16-25.	2.6	59
335	Clustering instability in adhesive contact between elastic solids via diffusive molecular bonds. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 251-266.	2.3	34
336	The strength limit in a bio-inspired metallic nanocomposite. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 1086-1104.	2.3	31
337	Recoverable creep deformation and transient local stress concentration due to heterogeneous grain-boundary diffusion and sliding in polycrystalline solids. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 1460-1483.	2.3	82
338	An electromechanical liquid crystal model of vesicles. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 2844-2862.	2.3	36
339	Energetics and stability of C60 molecules encapsulated in carbon nanotubes. <i>Carbon</i> , 2008, 46, 649-655.	5.4	9
340	Enhanced strain-rate sensitivity in fcc nanocrystals due to grain-boundary diffusion and sliding. <i>Acta Materialia</i> , 2008, 56, 1741-1752.	3.8	149
341	Reprint of â€™Multi-scale cohesive laws in hierarchical materialsâ€™[<i>In. J. Solids Struct.</i> 44 (2007) 8177â€™8193]. <i>International Journal of Solids and Structures</i> , 2008, 45, 3627-3643.	1.3	11
342	Fracture toughness of layered structures: Embrittlement due to confinement of plasticity. <i>Engineering Fracture Mechanics</i> , 2008, 75, 3743-3754.	2.0	7

#	ARTICLE	IF	CITATIONS
343	Two Characteristic Regimes in Frequency-Dependent Dynamic Reorientation of Fibroblasts on Cyclically Stretched Substrates. <i>Biophysical Journal</i> , 2008, 95, 3470-3478.	0.2	221
344	Adhesion and sliding response of a biologically inspired fibrillar surface: experimental observations. <i>Journal of the Royal Society Interface</i> , 2008, 5, 723-733.	1.5	48
345	Maximum strength for intermolecular adhesion of nanospheres at an optimal size. <i>Journal of the Royal Society Interface</i> , 2008, 5, 1363-1370.	1.5	9
346	Effect of defects on oscillation characteristics and instability of carbon nanotube-based oscillators. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	28
347	Apparent fracture/adhesion energy of interfaces with periodic cohesive interactions. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2008, 464, 657-671.	1.0	13
348	Lifetime and Strength of Adhesive Molecular Bond Clusters between Elastic Media. <i>Langmuir</i> , 2008, 24, 1262-1270.	1.6	101
349	Molecular dynamics study on DNA oligonucleotide translocation through carbon nanotubes. <i>Journal of Chemical Physics</i> , 2008, 129, 125101.	1.2	24
350	Trans-phonon effects in ultra-fast nanodevices. <i>Nanotechnology</i> , 2008, 19, 255705.	1.3	17
351	Hierarchical modelling of attachment and detachment mechanisms of gecko toe adhesion. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2008, 464, 1639-1652.	1.0	80
352	Energy radiation and limiting speeds of fast moving edge dislocations in tungsten. <i>Physical Review B</i> , 2008, 77, .	1.1	47
353	Cell compressibility studies utilizing noncontact hydrostatic pressure measurements on single living cells in a microchamber. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	14
354	Spontaneous generation and propagation of transverse coaxial traveling waves in multiwalled carbon nanotubes. <i>Applied Physics Letters</i> , 2008, 93, 013106.	1.5	5
355	Sustained surface wave propagation induced by surface diffusion driven by strain relaxation in a heteroepitaxial film. <i>Applied Physics Letters</i> , 2008, 92, 061913.	1.5	1
356	Size and shape effects on diffusion and absorption of colloidal particles near a partially absorbing sphere: Implications for uptake of nanoparticles in animal cells. <i>Physical Review E</i> , 2008, 78, 061914.	0.8	58
357	Stability of molecular adhesion mediated by confined polymer repellers and ligand-receptor bonds. <i>MCB Molecular and Cellular Biomechanics</i> , 2008, 5, 19-25.	0.3	4
358	Indentation size effect: a study via the Mechanism-based Strain-Gradient plasticity theory. <i>International Journal of Surface Science and Engineering</i> , 2007, 1, 156.	0.4	8
359	Mechanical principles of robust and releasable adhesion of gecko. <i>Journal of Adhesion Science and Technology</i> , 2007, 21, 1185-1212.	1.4	43
360	Self-folding of single- and multiwall carbon nanotubes. <i>Applied Physics Letters</i> , 2007, 90, 073107.	1.5	60

#	ARTICLE	IF	CITATIONS
361	Repulsive force between screw dislocation and coherent twin boundary in aluminum and copper. <i>Physical Review B</i> , 2007, 75, .	1.1	78
362	Size-dependent piezoelectricity in zinc oxide nanofilms from first-principles calculations. <i>Applied Physics Letters</i> , 2007, 90, 033108.	1.5	45
363	Molecular dynamics simulation of polarizable carbon nanotubes. <i>Computational Materials Science</i> , 2007, 40, 460-465.	1.4	10
364	First-principles study of the dependence of ground-state structural properties on the dimensionality and size of ZnO nanostructures. <i>Physical Review B</i> , 2007, 76, .	1.1	55
365	Electric field-induced translocation of single-stranded DNA through a polarized carbon nanotube membrane. <i>Journal of Chemical Physics</i> , 2007, 127, 225101.	1.2	29
366	Ultrasonic technique for extracting nanofibers from nature materials. <i>Applied Physics Letters</i> , 2007, 90, 073112.	1.5	225
367	First-principles study on ZnO nanoclusters with hexagonal prism structures. <i>Applied Physics Letters</i> , 2007, 90, 223102.	1.5	55
368	Non-slipping adhesive contact between mismatched elastic cylinders. <i>International Journal of Solids and Structures</i> , 2007, 44, 1939-1948.	1.3	24
369	Stability of frictional slipping at an anisotropic/isotropic interface. <i>International Journal of Solids and Structures</i> , 2007, 44, 4318-4328.	1.3	2
370	Multi-scale cohesive laws in hierarchical materials. <i>International Journal of Solids and Structures</i> , 2007, 44, 8177-8193.	1.3	82
371	A conventional theory of strain gradient crystal plasticity based on the Taylor dislocation model. <i>International Journal of Plasticity</i> , 2007, 23, 1540-1554.	4.1	22
372	Bio-inspired mechanics of reversible adhesion: Orientation-dependent adhesion strength for non-slipping adhesive contact with transversely isotropic elastic materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2007, 55, 1001-1015.	2.3	92
373	Adhesion maps of spheres corrected for strength limit. <i>Journal of Colloid and Interface Science</i> , 2007, 315, 786-790.	5.0	33
374	Recoverable creep deformation due to heterogeneous grain-boundary diffusion and sliding. <i>Scripta Materialia</i> , 2007, 57, 933-936.	2.6	28
375	Stretching a stiff polymer in a tube. <i>Journal of Materials Science</i> , 2007, 42, 8838-8843.	1.7	30
376	Bio-Inspired Mechanics of Bone-Like Hierarchical Materials. , 2007, , 87-94.		0
377	Self-Folding and Unfolding of Carbon Nanotubes. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2006, 128, 3-10.	0.8	37
378	Non-slipping adhesive contact of an elastic cylinder on stretched substrates. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2006, 462, 211-228.	1.0	61

#	ARTICLE	IF	CITATIONS
379	Bio-Inspired Material Design and Optimization. , 2006, , 439-453.		15
380	Cracking and adhesion at small scales: atomistic and continuum studies of flaw tolerant nanostructures. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 799-816.	0.8	65
381	Self-Assembly of Single-Walled Carbon Nanotubes into Multiwalled Carbon Nanotubes in Water:Â Molecular Dynamics Simulations. Nano Letters, 2006, 6, 430-434.	4.5	75
382	Molecular-Dynamic Studies of Carbonâ€“Waterâ€“Carbon Composite Nanotubes. Small, 2006, 2, 1348-1355.	5.2	34
383	Dynamical fracture instabilities due to local hyperelasticity at crack tips. Nature, 2006, 439, 307-310.	13.7	251
384	Elastic properties of nanocomposite structure of bone. Composites Science and Technology, 2006, 66, 1212-1218.	3.8	102
385	Mechanics of robust and releasable adhesion in biology: Bottomâ€“up designed hierarchical structures of gecko. Journal of the Mechanics and Physics of Solids, 2006, 54, 1120-1146.	2.3	303
386	Non-slipping adhesive contact between mismatched elastic spheres: A model of adhesion mediated deformation sensor. Journal of the Mechanics and Physics of Solids, 2006, 54, 1548-1567.	2.3	46
387	A cohesive law for carbon nanotube/polymer interfaces based on the van der Waals force. Journal of the Mechanics and Physics of Solids, 2006, 54, 2436-2452.	2.3	308
388	Discrete dislocation dynamics simulations of surface induced size effects in plasticity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 415, 225-233.	2.6	44
389	A combined dislocationâ€“cohesive zone model for fracture in a confined ductile layer. International Journal of Fracture, 2006, 140, 169-181.	1.1	12
390	Application of Fracture Mechanics Concepts to Hierarchical Biomechanics of Bone and Bone-like Materials. International Journal of Fracture, 2006, 138, 101-137.	1.1	411
391	Two-dimensional model of vesicle adhesion on curved substrates. Acta Mechanica Sinica/Lixue Xuebao, 2006, 22, 529-535.	1.5	31
392	Scaling effects of wet adhesion in biological attachment systems. Acta Biomaterialia, 2006, 2, 51-58.	4.1	103
393	Poisson ratio can play a crucial role in mechanical properties of biocomposites. Mechanics of Materials, 2006, 38, 1128-1142.	1.7	75
394	Optimal shapes for adhesive binding between two elastic bodies. Journal of Colloid and Interface Science, 2006, 298, 564-572.	5.0	44
395	Generalized Maugisâ€“Dugdale model of an elastic cylinder in non-slipping adhesive contact with a stretched substrate. International Journal of Materials Research, 2006, 97, 584-593.	0.8	19
396	Dynamical Fracture Instabilities Due to Local Hyperelasticity at Crack Tips. Materials Research Society Symposia Proceedings, 2006, 929, 1.	0.1	2

#	ARTICLE	IF	CITATIONS
397	Atomistic Studies of Flaw Tolerant Nanoscale Structural Links in Biological Materials. , 2006, , 139-150.		1
398	Stretching short DNAs in electrolytes. MCB Molecular and Cellular Biomechanics, 2006, 3, 13-9.	0.3	5
399	A material force method for inelastic fracture mechanics. Journal of the Mechanics and Physics of Solids, 2005, 53, 91-121.	2.3	59
400	Mechanism-based strain gradient crystal plasticityâ€”I. Theory. Journal of the Mechanics and Physics of Solids, 2005, 53, 1188-1203.	2.3	210
401	Modern topics and challenges in dynamic fracture. Journal of the Mechanics and Physics of Solids, 2005, 53, 565-596.	2.3	111
402	Mechanism-based strain gradient crystal plasticityâ€”II. Analysis. Journal of the Mechanics and Physics of Solids, 2005, 53, 1204-1222.	2.3	70
403	Mechanics of hierarchical adhesion structures of geckos. Mechanics of Materials, 2005, 37, 275-285.	1.7	592
404	New directions in mechanics. Mechanics of Materials, 2005, 37, 231-259.	1.7	118
405	Two-dimensional discrete dislocation models of deformation in polycrystalline thin metal films on substrates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 400-401, 260-263.	2.6	10
406	On the solution of the dynamic Eshelby problem for inclusions of various shapes. International Journal of Solids and Structures, 2005, 42, 353-363.	1.3	19
407	On the retarded potentials of inhomogeneous ellipsoids and sources of arbitrary shapes in the three-dimensional infinite space. International Journal of Solids and Structures, 2005, 42, 51-67.	1.3	5
408	A quantitative study of the hardness of a superhard nanocrystalline titanium nitride/silicon nitride coating. Scripta Materialia, 2005, 52, 1269-1274.	2.6	36
409	A simplified formula of Laplace inversion based on wavelet theory. Communications in Numerical Methods in Engineering, 2005, 21, 527-530.	1.3	2
410	Multiscale Modeling of Deformation in Polycrystalline Thin Metal Films on Substrates. Advanced Engineering Materials, 2005, 7, 165-169.	1.6	16
411	The dynamical complexity of work-hardening: a large-scale molecular dynamics simulation. Acta Mechanica Sinica/Lixue Xuebao, 2005, 21, 103-111.	1.5	28
412	Molecular dynamics simulation of peeling a DNA molecule on substrate. Acta Mechanica Sinica/Lixue Xuebao, 2005, 21, 249-256.	1.5	39
413	Modeling receptor-mediated endocytosis via mechanics of cell adhesion. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	2
414	A Mother-Daughter Mechanism of Mode I cracks: Supersonic Crack Motion Along Interfaces of Dissimilar Materials. Materials Research Society Symposia Proceedings, 2005, 904, 1.	0.1	1

#	ARTICLE	IF	CITATIONS
415	From The Cover: Mechanics of receptor-mediated endocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 9469-9474.	3.3	1,083
416	A generalized bead-rod model for Brownian dynamics simulations of wormlike chains under strong confinement. Journal of Chemical Physics, 2005, 123, 084906.	1.2	62
417	On the Modified Virtual Internal Bond Method. Journal of Applied Mechanics, Transactions ASME, 2005, 72, 969-971.	1.1	21
418	Effects of contact shape on the scaling of biological attachments. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 305-319.	1.0	236
419	Effect of single wall carbon nanotubes on human HEK293 cells. Toxicology Letters, 2005, 155, 73-85.	0.4	773
420	Flaw Tolerance in a Thin Strip Under Tension. Journal of Applied Mechanics, Transactions ASME, 2005, 72, 732-737.	1.1	83
421	Measurement of Stresses in Thin Films and Their Relaxation. , 2005, , 365-404.		1
422	Flaw Tolerant Nanostructures of Biological Materials. , 2005, , 131-138.		6
423	Measurement of Stresses in Thin Films and Their Relaxation. , 2005, , 365-404.		0
424	Effects of single-walled carbon nanotubes on the polymerase chain reaction. Nanotechnology, 2004, 15, 154-157.	1.3	148
425	Hierarchical multi-scale modelling of plasticity of submicron thin metal films. Modelling and Simulation in Materials Science and Engineering, 2004, 12, S391-S413.	0.8	28
426	Morphological healing evolution of penny-shaped fatigue microcracks in pure iron at elevated temperatures. Applied Physics Letters, 2004, 85, 1143-1145.	1.5	21
427	Mechanism-based strain gradient crystal plasticity. Materials Research Society Symposia Proceedings, 2004, 821, 198.	0.1	9
428	Atomistic And Continuum Studies Of Flaw Tolerant Nanostructures in Biological Systems. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	0
429	Constrained Grain Boundary Diffusion In Thin Copper Films. Materials Research Society Symposia Proceedings, 2004, 821, 36.	0.1	8
430	Hyperelastic effects in brittle materials failure. Materials Research Society Symposia Proceedings, 2004, 821, 204.	0.1	0
431	Experimental study of filling carbon nanotubes with nucleic acids. Materials Research Society Symposia Proceedings, 2004, 820, 97.	0.1	1
432	How do slender mineral crystals resist buckling in biological materials?. Philosophical Magazine Letters, 2004, 84, 631-641.	0.5	35

#	ARTICLE	IF	CITATIONS
433	The Effect of Nanotube Waviness and Agglomeration on the Elastic Property of Carbon Nanotube-Reinforced Composites. Journal of Engineering Materials and Technology, Transactions of the ASME, 2004, 126, 250-257.	0.8	649
434	Deformation Mechanisms of Very Long Single-Wall Carbon Nanotubes Subject to Compressive Loading. Journal of Engineering Materials and Technology, Transactions of the ASME, 2004, 126, 245-249.	0.8	111
435	Analysis of a one-billion atom simulation of work-hardening in ductile materials. Materials Research Society Symposia Proceedings, 2004, 821, 270.	0.1	0
436	A Mother-daughter-granddaughter mechanism of shear dominated intersonic crack motion along interfaces of dissimilar materials. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2004, 27, 763-769.	0.6	6
437	The J-integral and geometrically necessary dislocations in nonuniform plastic deformation. International Journal of Plasticity, 2004, 20, 1739-1762.	4.1	46
438	A study of fracture mechanisms in biological nano-composites via the virtual internal bond model. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 366, 96-103.	2.6	145
439	Biegen und Brechen im Supercomputer: Duktile Verformungen und spröde Brüche von Kristallen. Physik in Unserer Zeit, 2004, 35, 30-37.	0.0	5
440	A conventional theory of mechanism-based strain gradient plasticity. International Journal of Plasticity, 2004, 20, 753-782.	4.1	467
441	Atomistic and continuum studies of stress and strain fields near a rapidly propagating crack in a harmonic lattice. Theoretical and Applied Fracture Mechanics, 2004, 41, 21-42.	2.1	46
442	Mechanical properties of nanostructure of biological materials. Journal of the Mechanics and Physics of Solids, 2004, 52, 1963-1990.	2.3	794
443	Shear crack propagation along weak planes in solids: a finite deformation analysis incorporating the linear harmonic potential. International Journal of Solids and Structures, 2004, 41, 1-14.	1.3	9
444	On the finite opening of intersonic shear cracks. International Journal of Solids and Structures, 2004, 41, 2293-2306.	1.3	5
445	A rate-dependent cohesive continuum model for the study of crack dynamics. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 3239-3265.	3.4	19
446	Atomic plasticity: description and analysis of a one-billion atom simulation of ductile materials failure. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 5257-5282.	3.4	55
447	Shape insensitive optimal adhesion of nanoscale fibrillar structures. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 7851-7856.	3.3	395
448	Stress and energy flow field near a rapidly propagating mode I crack. Lecture Notes in Computational Science and Engineering, 2004, , 143-156.	0.1	9
449	SIMULATION OF DNA-NANOTUBE INTERACTIONS. Annual Review of Materials Research, 2004, 34, 123-150.	4.3	201
450	Evaluation of Decoherence for Quantum Control and Computing. Journal of Computational and Theoretical Nanoscience, 2004, 1, 132-143.	0.4	16

#	ARTICLE	IF	CITATIONS
451	Flow stress of biomorphous metal-matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 386, 435-441.	2.6	4
452	A differential cluster variation method for analysis of spinodal decomposition in alloys. <i>European Physical Journal B</i> , 2003, 37, 369-374.	0.6	3
453	Geometrically necessary dislocation and size-dependent plasticity. <i>Scripta Materialia</i> , 2003, 48, 113-118.	2.6	500
454	Computation of the Laplace inverse transform by application of the wavelet theory. <i>Communications in Numerical Methods in Engineering</i> , 2003, 19, 959-975.	1.3	33
455	Atomistic and continuum studies of crack-like diffusion wedges and associated dislocation mechanisms in thin films on substrates. <i>Journal of the Mechanics and Physics of Solids</i> , 2003, 51, 2105-2125.	2.3	47
456	Modeling fracture in nanomaterials via a virtual internal bond method. <i>Engineering Fracture Mechanics</i> , 2003, 70, 1777-1791.	2.0	111
457	Dynamic fiber inclusions with elliptical and arbitrary cross-sections and related retarded potentials in a quasi-plane piezoelectric medium. <i>International Journal of Solids and Structures</i> , 2003, 40, 6307-6333.	1.3	7
458	Size-dependent elastic properties of a single-walled carbon nanotube via a molecular mechanics model. <i>Journal of the Mechanics and Physics of Solids</i> , 2003, 51, 1059-1074.	2.3	524
459	Hyperelasticity governs dynamic fracture at a critical length scale. <i>Nature</i> , 2003, 426, 141-146.	13.7	292
460	This article has been retracted. <i>Advance and Prospect of Bionanomaterials</i> . <i>Biotechnology Progress</i> , 2003, 19, 683-692.	1.3	91
461	Dynamic Eshelby tensor and potentials for ellipsoidal inclusions. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2003, 459, 863-890.	1.0	47
462	Spontaneous Insertion of DNA Oligonucleotides into Carbon Nanotubes. <i>Nano Letters</i> , 2003, 3, 471-473.	4.5	432
463	Energy Dissipation in Gigahertz Oscillators from Multiwalled Carbon Nanotubes. <i>Physical Review Letters</i> , 2003, 91, 125501.	2.9	228
464	Atomistic and continuum studies of a suddenly stopping supersonic crack. <i>Computational Materials Science</i> , 2003, 28, 385-408.	1.4	19
465	The effect of nanotube radius on the constitutive model for carbon nanotubes. <i>Computational Materials Science</i> , 2003, 28, 429-442.	1.4	160
466	Materials become insensitive to flaws at nanoscale: Lessons from nature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 5597-5600.	3.3	1,641
467	On the Dynamic Potentials of Ellipsoidal Shells. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 2003, 56, 629-648.	0.5	7
468	Patterned nanostructure in AgCo/Pt/MgO(001) thin films. <i>Physical Review B</i> , 2003, 68, .	1.1	8

#	ARTICLE	IF	CITATIONS
469	Modelling Carbon Nanotube Based Bio-Nano Systems: A Molecular Dynamics Study. Materials Research Society Symposia Proceedings, 2003, 773, 851.	0.1	8
470	Effects of Single-Walled Carbon Nanotube on Polymerase Chain Reaction. Materials Research Society Symposia Proceedings, 2003, 773, 231.	0.1	0
471	Atomistic and Continuum Studies of Diffusional Creep and Associated Dislocation Mechanisms in thin Films on Substrates. Materials Research Society Symposia Proceedings, 2003, 779, 471.	0.1	2
472	Self Assembly of Polymer Structures Induced by Electric Field. Journal of the Association for Laboratory Automation, 2003, 8, 86-89.	2.8	1
473	Modeling Fracture in Nano Materials. , 2003, , 307-316.		1
474	Effect of Dislocation Core Spreading at Interfaces on Strength of Thin-films. Journal of Materials Research, 2002, 17, 1808-1813.	1.2	15
475	Fracture Nucleation in Single-Wall Carbon Nanotubes Under Tension: A Continuum Analysis Incorporating Interatomic Potentials. Journal of Applied Mechanics, Transactions ASME, 2002, 69, 454-458.	1.1	111
476	Simulating materials failure by using up to one billion atoms and the world's fastest computer: Brittle fracture. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5777-5782.	3.3	129
477	Coupled grain boundary and surface diffusion in a polycrystalline thin film constrained by substrate. International Journal of Materials Research, 2002, 93, 417-427.	0.8	25
478	Confined Capillary Stresses During the Initial Growth of Thin Films on Amorphous Substrates. Journal of Applied Mechanics, Transactions ASME, 2002, 69, 425-432.	1.1	13
479	Intersonic Crack Propagation—Part II: Suddenly Stopping Crack. Journal of Applied Mechanics, Transactions ASME, 2002, 69, 76-80.	1.1	24
480	Atomic diffusion from a material surface into a grain boundary. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 1673-1694.	1.0	7
481	Dynamic potentials and Green's functions of a quasi—plane piezoelectric medium with inclusion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 2393-2415.	1.0	15
482	Simulating materials failure by using up to one billion atoms and the world's fastest computer: Work-hardening. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5783-5787.	3.3	114
483	NANOMECHANICS OF SURFACES AND INTERFACES. Journal of Applied Mechanics, Transactions ASME, 2002, 69, 405-406.	1.1	2
484	Dislocation core spreading at interfaces between metal films and amorphous substrates. Journal of the Mechanics and Physics of Solids, 2002, 50, 2169-2202.	2.3	34
485	Propagation of electroacoustic waves in the transversely isotropic piezoelectric medium reinforced by randomly distributed cylindrical inhomogeneities. International Journal of Solids and Structures, 2002, 39, 5013-5051.	1.3	32
486	Identification of elastic-plastic material parameters from pyramidal indentation of thin films. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 1593-1620.	1.0	90

#	ARTICLE	IF	CITATIONS
487	Electric Field Induced Self Assembly and Template Patterning of Polymer Microstructures. Materials Research Society Symposia Proceedings, 2001, 665, 1.	0.1	0
488	Physics-based modeling of brittle fracture: cohesive formulations and the application of meshfree methods. Theoretical and Applied Fracture Mechanics, 2001, 37, 99-166.	2.1	142
489	Effect of local polarization switching on piezoelectric fracture. Journal of the Mechanics and Physics of Solids, 2001, 49, 927-952.	2.3	72
490	Continuum and atomistic studies of intersonic crack propagation. Journal of the Mechanics and Physics of Solids, 2001, 49, 2113-2132.	2.3	126
491	Constrained diffusional creep in UHV-produced copper thin films. Acta Materialia, 2001, 49, 2395-2403.	3.8	128
492	Taylor-based nonlocal theory of plasticity. International Journal of Solids and Structures, 2001, 38, 2615-2637.	1.3	199
493	Explanation for fracture spacing in layered materials. Nature, 2000, 403, 753-756.	13.7	233
494	Mechanism-based strain gradient plasticity—II. Analysis. Journal of the Mechanics and Physics of Solids, 2000, 48, 99-128.	2.3	562
495	Spacing of edge fractures in layered materials. International Journal of Fracture, 2000, 103, 373-395.	1.1	30
496	Plasticity contributions to interface adhesion in thin-film interconnect structures. Journal of Materials Research, 2000, 15, 2758-2769.	1.2	164
497	A Study of Microindentation Hardness Tests by Mechanism-based Strain Gradient Plasticity. Journal of Materials Research, 2000, 15, 1786-1796.	1.2	206
498	Generalized stacking fault energies for embedded atom FCC metals. Modelling and Simulation in Materials Science and Engineering, 2000, 8, 103-115.	0.8	279
499	How Fast Can Cracks Propagate?. Physical Review Letters, 2000, 84, 3113-3116.	2.9	187
500	Viscoelastic thermal stress in cooling basalt flows. Journal of Geophysical Research, 2000, 105, 23695-23709.	3.3	45
501	Study of Crack Dynamics Using the Virtual Internal Bond Method. , 2000, , 275-309.		7
502	Stress-driven surface evolution in heteroepitaxial thin films: Anisotropy of the two-dimensional roughening mode. Journal of Materials Research, 1999, 14, 3247-3256.	1.2	28
503	Crack-like grain-boundary diffusion wedges in thin metal films. Acta Materialia, 1999, 47, 2865-2878.	3.8	199
504	Mechanism-based strain gradient plasticity? I. Theory. Journal of the Mechanics and Physics of Solids, 1999, 47, 1239-1263.	2.3	1,757

#	ARTICLE	IF	CITATIONS
505	Driving force and nucleation of supersonic dislocations. , 1999, 6, 137-144.		30
506	SURFACE ROUGHENING OF HETEROEPITAXIAL THIN FILMS. Annual Review of Materials Research, 1999, 29, 173-209.	5.5	239
507	Modeling Plasticity at the Micrometer Scale. Die Naturwissenschaften, 1999, 86, 507-515.	0.6	196
508	A Numerical Study of Electro-migration Voiding by Evolving Level Set Functions on a Fixed Cartesian Grid. Journal of Computational Physics, 1999, 152, 281-304.	1.9	74
509	Dislocations Faster than the Speed of Sound. Science, 1999, 283, 965-968.	6.0	263
510	Atomistic Simulation of Transonic Dislocations. Materials Research Society Symposia Proceedings, 1999, 578, 229.	0.1	0
511	Crack nucleation and growth as strain localization in a virtual-bond continuum. Engineering Fracture Mechanics, 1998, 61, 21-48.	2.0	157
512	An atomistic interpretation of interface stress. Scripta Materialia, 1998, 39, 1653-1661.	2.6	108
513	Numerical simulation of crack growth in an isotropic solid with randomized internal cohesive bonds. Journal of the Mechanics and Physics of Solids, 1998, 46, 187-218.	2.3	297
514	Indentation size effects in crystalline materials: A law for strain gradient plasticity. Journal of the Mechanics and Physics of Solids, 1998, 46, 411-425.	2.3	3,595
515	Anomalous ductile-brittle fracture behaviour in fcc crystals. Philosophical Magazine Letters, 1998, 78, 307-312.	0.5	16
516	<title>Nonlinear fracture mechanics of piezoelectric ceramics</title>. , 1998, 3323, 119.		2
517	Strain relaxation and defect formation in heteroepitaxial Si1 \hat{a} ^x Gex films via surface roughening induced by controlled annealing experiments. Applied Physics Letters, 1997, 70, 2247-2249.	1.5	130
518	Electrical Nonlinearity in Fracture of Piezoelectric Ceramics. Applied Mechanics Reviews, 1997, 50, S56-S63.	4.5	67
519	In-Situ TEM Observations of Surface Roughening and Defect Formation in Lattice Mismatched Heteroepitaxial Thin Films. Materials Research Society Symposia Proceedings, 1997, 505, 291.	0.1	1
520	Elastic waves in a hyperelastic solid near its plane-strain equibiaxial cohesive limit. Philosophical Magazine Letters, 1997, 76, 307-314.	0.5	33
521	Quasi-static dislocations in three dimensional inhomogeneous media. Geophysical Research Letters, 1997, 24, 2347-2350.	1.5	26
522	Local and global energy release rates for an electrically yielded crack in a piezoelectric ceramic. Journal of the Mechanics and Physics of Solids, 1997, 45, 491-510.	2.3	464

#	ARTICLE	IF	CITATIONS
523	Anisotropic Behaviour of Surface Roughening in Lattice Mismatched Heteroepitaxial Thin Films. Materials Research Society Symposia Proceedings, 1996, 436, 487.	0.1	7
524	Studies of Morphological Instability and Dislocation Formation in Heteroepitaxial Si _{1-x} Ge _x Thin Films Via Controlled Annealing Experiments. Materials Research Society Symposia Proceedings, 1996, 440, 323.	0.1	3
525	Effect of Stresses on Defect Nucleation in Si _{1-x} Ge _x /Si Heteroepitaxial Systems. Materials Research Society Symposia Proceedings, 1996, 442, 373.	0.1	2
526	A theory of local limiting speed in dynamic fracture. Journal of the Mechanics and Physics of Solids, 1996, 44, 1453-1474.	2.3	141
527	Investigation of Relationships between Dislocations and Crystal Surface Ledges. Materials Research Society Symposia Proceedings, 1995, 399, 401.	0.1	6
528	Strain Relaxation in Heteroepitaxial Si _{1-x} Ge _x Films via Surface Roughening Processes. Materials Research Society Symposia Proceedings, 1995, 399, 407.	0.1	10
529	A hybrid finite element analysis of interface cracks. International Journal for Numerical Methods in Engineering, 1995, 38, 2465-2482.	1.5	25
530	A generalized continuous contact model for interface cracks in anisotropic elastic solids. International Journal of Fracture, 1994, 67, 53-68.	1.1	8
531	Some general properties of stress-driven surface evolution in a heteroepitaxial thin film structure. Journal of the Mechanics and Physics of Solids, 1994, 42, 741-772.	2.3	215
532	A Numerical Study of Stress Controlled Surface Diffusion During Epitaxial Film Growth. Materials Research Society Symposia Proceedings, 1994, 356, 33.	0.1	30
533	Dislocations in inhomogeneous media via a moduli perturbation approach: General formulation and two-dimensional solutions. Journal of Geophysical Research, 1994, 99, 13767-13779.	3.3	54
534	Surface roughening and branching instabilities in dynamic fracture. Journal of the Mechanics and Physics of Solids, 1993, 41, 457-486.	2.3	114
535	Stress singularities along a cycloid rough surface. International Journal of Solids and Structures, 1993, 30, 2983-3012.	1.3	113
536	Numerical Simulation of Diffusion Controlled Surface Evolution. Materials Research Society Symposia Proceedings, 1993, 317, 369.	0.1	7
537	Cusp-like flaws along a rough surface. Thin Solid Films, 1993, 236, 240-246.	0.8	9
538	A note on the elastic contact stiffness of a layered medium. Journal of Materials Research, 1993, 8, 3229-3232.	1.2	30
539	Dislocation Nucleation from a Surface CUSP. Materials Research Society Symposia Proceedings, 1993, 317, 303.	0.1	5
540	STRESS ANALYSIS OF HOLES IN ANISOTROPIC ELASTIC SOLIDS: CONFORMAL MAPPING AND BOUNDARY PERTURBATION. Quarterly Journal of Mechanics and Applied Mathematics, 1992, 45, 149-168.	0.5	25

#	ARTICLE	IF	CITATIONS
541	Three-Dimensional Slightly Nonplanar Cracks. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1992, 59, 335-343.	1.1	34
542	Weight function method for interface cracks in anisotropic bimetals. <i>International Journal of Fracture</i> , 1992, 56, 139-158.	1.1	23
543	Variation of elastic T-stresses along slightly wavy 3D crack fronts. <i>International Journal of Fracture</i> , 1992, 58, 241-257.	1.1	18
544	A closed interface crack in anisotropic bimetals. <i>International Journal of Fracture</i> , 1992, 55, R33-R39.	1.1	4
545	Elastic contact versus indentation modeling of multi-layered materials. <i>International Journal of Solids and Structures</i> , 1992, 29, 2471-2492.	1.3	404
546	Diffusion or imperfection modified long range interaction between a line dislocation and a spherical inclusion. <i>International Journal of Engineering Science</i> , 1992, 30, 1061-1071.	2.7	4
547	Penetration of a quasi-statically slipping crack into a seismogenic zone of heterogeneous fracture resistance. <i>Journal of Geophysical Research</i> , 1991, 96, 21535-21548.	3.3	16
548	A boundary perturbation analysis for elastic inclusions and interfaces. <i>International Journal of Solids and Structures</i> , 1991, 28, 703-725.	1.3	130
549	Crack interaction with 3-D dislocation loops. <i>Journal of the Mechanics and Physics of Solids</i> , 1991, 39, 157-172.	2.3	20
550	Stress concentration at slightly undulating surfaces. <i>Journal of the Mechanics and Physics of Solids</i> , 1991, 39, 443-458.	2.3	149
551	Weight Function Analysis of Interface Cracks: Mismatch Versus Oscillation. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1991, 58, 931-938.	1.1	33
552	Mismatched elastic connections. <i>International Journal of Fracture</i> , 1990, 45, 131-143.	1.1	2
553	A First-Order Perturbation Analysis of Crack Trapping by Arrays of Obstacles. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1989, 56, 828-836.	1.1	266
554	Weight functions for external circular cracks. <i>International Journal of Solids and Structures</i> , 1989, 25, 107-127.	1.3	15
555	Application of 3-D weight functions. I. Formulations of crack interactions with transformation strains and dislocations. <i>Journal of the Mechanics and Physics of Solids</i> , 1989, 37, 133-153.	2.3	43
556	Linear perturbation analysis of a shear-loaded asperity. <i>Journal of Geophysical Research</i> , 1989, 94, 10259-10266.	3.3	7
557	Nearly circular shear mode cracks. <i>International Journal of Solids and Structures</i> , 1988, 24, 177-193.	1.3	53
558	Nearly Circular Connections of Elastic Half Spaces. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1987, 54, 627-634.	1.1	46

#	ARTICLE	IF	CITATIONS
559	Somewhat circular tensile cracks. <i>International Journal of Fracture</i> , 1987, 33, 155-174.	1.1	120
560	Shear Stress Intensity Factors for a Planar Crack With Slightly Curved Front. <i>Journal of Applied Mechanics</i> , <i>Transactions ASME</i> , 1986, 53, 774-778.	1.1	103