Xi-Qiao Feng

List of Publications by Year
in descending order

444 papers	18,862 citations	22153 59 h-index	19190 118 g-index
453 all docs	453 docs citations	453 times ranked	16757 citing authors

#	Article	IF	Citations
1	Effects of particle size, particle/matrix interface adhesion and particle loading on mechanical properties of particulateâ€“polymer composites. Composites Part B: Engineering, 2008, 39, 933-961.	12.0	2,646
2	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.	1.4	649
3	Mechanics of morphological instabilities and surface wrinkling in soft materials: a review. Soft Matter, 2012, 8, 5728.	2.7	620
4	Zeolitic Imidazolate Framework 67â€Derived High Symmetric Porous Co₃O₄ Hollow Dodecahedra with Highly Enhanced Lithium Storage Capability. Small, 2014, 10, 1932-1938.	10.0	442
5	Effects of surface elasticity and residual surface tension on the natural frequency of microbeams. Applied Physics Letters, 2007, 90, 231904.	3.3	407
6	Superior Water Repellency of Water Strider Legs with Hierarchical Structures:Â Experiments and Analysis. Langmuir, 2007, 23, 4892-4896.	3.5	334
7	Integrin activation and internalization on soft ECM as a mechanism of induction of stem cell differentiation by ECM elasticity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9466-9471.	7.1	302
8	Towards Understanding Why a Superhydrophobic Coating Is Needed by Water Striders. Advanced Materials, 2007, 19, 2257-2261.	21.0	278
9	Surface stress effect in mechanics of nanostructured materials. Acta Mechanica Solida Sinica, 2011, 24, 52-82.	1.9	274
10	Surface effects on buckling of nanowires under uniaxial compression. Applied Physics Letters, 2009, 94, .	3.3	266
11	Adhesion-dependent negative friction coefficient on chemically modified graphite at the nanoscale. Nature Materials, 2012, 11, 1032-1037.	27.5	258
12	Discontinuous crack-bridging model for fracture toughness analysis of nacre. Journal of the Mechanics and Physics of Solids, 2012, 60, 1400-1419.	4.8	233
13	Ultrasonic technique for extracting nanofibers from nature materials. Applied Physics Letters, 2007, 90, 073112.	3.3	225
14	Timoshenko beam model for buckling and vibration of nanowires with surface effects. Journal Physics D: Applied Physics, 2009, 42, 155411.	2.8	212
15	Surface Wrinkling Patterns on a Core-Shell Soft Sphere. Physical Review Letters, 2011, 106, 234301.	7.8	207
16	Surface wrinkling of mucosa induced by volumetric growth: Theory, simulation and experiment. Journal of the Mechanics and Physics of Solids, 2011, 59, 758-774.	4.8	196
17	Printable Skinâ€Driven Mechanoluminescence Devices via Nanodoped Matrix Modification. Advanced Materials, 2018, 30, e1800291.	21.0	178
18	Mechanical properties and scaling laws of nanoporous gold. Journal of Applied Physics, 2013, 113, .	2.5	171

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19	Effect of surface roughness on nanoindentation test of thin films. Engineering Fracture Mechanics, 2008, 75, 4965-4972.	4.3	163
20	Mechanical exfoliation of two-dimensional materials. Journal of the Mechanics and Physics of Solids, 2018, 115, 248-262.	4.8	143
21	Micromechanics prediction of the effective elastic moduli of graphene sheet-reinforced polymer nanocomposites. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 045005.	2.0	141
22	Efficient Self-Propelling of Small-Scale Condensed Microdrops by Closely Packed ZnO Nanoneedles. Journal of Physical Chemistry Letters, 2014, 5, 2084-2088.	4.6	139
23	Guided Selfâ€Propelled Leaping of Droplets on a Microâ€Anisotropic Superhydrophobic Surface. Angewandte Chemie - International Edition, 2016, 55, 4265-4269.	13.8	135
24	Spontaneous droplets gyrating via asymmetric self-splitting on heterogeneous surfaces. Nature Communications, 2019, 10, 950.	12.8	135
25	Hierarchical chirality transfer in the growth of Towel Gourd tendrils. Scientific Reports, 2013, 3, 3102.	3.3	121
26	Interface thermal conductance and rectification in hybrid graphene/silicene monolayer. Carbon, 2014, 79, 236-244.	10.3	116
27	Mechanical properties of silkworm cocoons. Polymer, 2005, 46, 9192-9201.	3.8	112
28	Spherical indentation method for determining the constitutive parameters of hyperelastic soft materials. Biomechanics and Modeling in Mechanobiology, 2014, 13, 1-11.	2.8	112
29	Mechanisms of superhydrophobicity on hydrophilic substrates. Journal of Physics Condensed Matter, 2007, 19, 356002.	1.8	106
30	Effects of surface stresses on contact problems at nanoscale. Journal of Applied Physics, 2007, 101, 013510.	2.5	106
31	A Monte Carlo form-finding method for large scale regular and irregular tensegrity structures. International Journal of Solids and Structures, 2010, 47, 1888-1898.	2.7	103
32	Effect of surface stresses on the vibration and buckling of piezoelectric nanowires. Europhysics Letters, 2010, 91, 56007.	2.0	103
33	Possible giant magnetoelectric effect of ferromagnetic rare-earthâ€“iron-alloys-filled ferroelectric polymers. Applied Physics Letters, 2001, 78, 2527-2529.	3.3	100
34	Mechanical property of carbon nanotubes with intramolecular junctions: Molecular dynamics simulations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6661-6666.	2.1	97
35	Surface effects on the elastic modulus of nanoporous materials. Applied Physics Letters, 2009, 94, .	3.3	96
36	Stiffness matrix based form-finding method of tensegrity structures. Engineering Structures, 2014, 58, 36-48.	5.3	96

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37	Buoyant force and sinking conditions of a hydrophobic thin rod floating on water. Physical Review E, 2007, 76, 066103.	2.1	94
38	Surface Stress Effects on the Bending Direction and Twisting Chirality of Lamellar Crystals of Chiral Polymer. Macromolecules, 2010, 43, 5762-5770.	4.8	94
39	Surface effects on the diffraction of plane compressional waves by a nanosized circular hole. Applied Physics Letters, 2006, 89, 231923.	3.3	91
40	Variability in mechanical properties of Bombyx mori silk. Materials Science and Engineering C, 2007, 27, 675-683.	7.3	91
41	Deep neural network method for predicting the mechanical properties of composites. Applied Physics Letters, 2019, 115, .	3.3	88
42	Mechanical properties of carbon nanotube ropes with hierarchical helical structures. Journal of the Mechanics and Physics of Solids, 2014, 71, 64-83.	4.8	81
43	A micromechanical model for interpenetrating multiphase composites. Computational Materials Science, 2003, 28, 486-493.	3.0	77
44	Self-Assembly of Single-Walled Carbon Nanotubes into Multiwalled Carbon Nanotubes in Water:Â Molecular Dynamics Simulations. Nano Letters, 2006, 6, 430-434.	9.1	75
45	A multiscale crack-bridging model of cellulose nanopaper. Journal of the Mechanics and Physics of Solids, 2017, 103, 22-39.	4.8	75
46	Analysis of spherical indentation of superelastic shape memory alloys. International Journal of Solids and Structures, 2007, 44, 1-17.	2.7	72
47	Tuning friction to a superlubric state via in-plane straining. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24452-24456.	7.1	72
48	On elastocapillarity: A review. Acta Mechanica Sinica/Lixue Xuebao, 2012, 28, 928-940.	3.4	71
49	Growth and surface folding of esophageal mucosa: A biomechanical model. Journal of Biomechanics, 2011, 44, 182-188.	2.1	70
50	Damage Micromechanics for Constitutive Relations and Failure of Microcracked Quasi-Brittle Materials. International Journal of Damage Mechanics, 2010, 19, 911-948.	4.2	69
51	Defect nucleation in carbon nanotubes under tension and torsion: Stoneâ€“Wales transformation. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 3419-3429.	6.6	68
52	Surface wrinkling and folding of coreâ€“shell soft cylinders. Soft Matter, 2012, 8, 556-562.	2.7	68
53	A Tensegrity Model of Cell Reorientation on Cyclically Stretched Substrates. Biophysical Journal, 2016, 111, 1478-1486.	0.5	65
54	Droplet Precise Selfâ€Splitting on Patterned Adhesive Surfaces for Simultaneous Multidetection. Angewandte Chemie - International Edition, 2020, 59, 10535-10539.	13.8	65

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55	Dynamic Migration Modes of Collective Cells. Biophysical Journal, 2018, 115, 1826-1835.	0.5	63
56	Mechanics of Smart-CutÂ® technology. International Journal of Solids and Structures, 2004, 41, 4299-4320.	2.7	62
57	Surface Effects on the Near-Tip Stresses for Mode-I and Mode-III Cracks. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	2.2	62
58	Impacts of environments on nanoscale wear behavior of graphene: Edge passivation vs. substrate pinning. Carbon, 2018, 139, 59-66.	10.3	62
59	A continuum theory of surface piezoelectricity for nanodielectrics. Science China: Physics, Mechanics and Astronomy, 2011, 54, 564-573.	5.1	61
60	Structures, properties, and functions of the stings of honey bees and paper wasps: a comparative study. Biology Open, 2015, 4, 921-928.	1.2	61
61	Biochemomechanical poroelastic theory of avascular tumor growth. Journal of the Mechanics and Physics of Solids, 2016, 94, 409-432.	4.8	61
62	A micromechanics-based damage model for microcrack-weakened brittle solids. Mechanics of Materials, 1995, 20, 59-76.	3.2	59
63	Experimental study on the mechanical properties of the horn sheaths from cattle. Journal of Experimental Biology, 2010, 213, 479-486.	1.7	59
64	Interface effects on effective elastic moduli of nanocrystalline materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 363, 1-8.	5.6	58
65	An enriched radial point interpolation method (e-RPIM) for analysis of crack tip fields. Engineering Fracture Mechanics, 2011, 78, 175-190.	4.3	58
66	Instabilities of soft films on compliant substrates. Journal of the Mechanics and Physics of Solids, 2017, 98, 350-365.	4.8	58
67	Mechanoelectrical flexible hub-beam model of ionic-type solvent-free nanofluids. Mechanical Systems and Signal Processing, 2021, 159, 107833.	8.0	58
68	Shakedown analysis of shape memory alloy structures. International Journal of Plasticity, 2007, 23, 183-206.	8.8	57
69	Effects of tensionâ€“compression asymmetry on the surface wrinkling of filmâ€“substrate systems. Journal of the Mechanics and Physics of Solids, 2016, 94, 88-104.	4.8	57
70	Activation and synchronization of the oscillatory morphodynamics in multicellular monolayer. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8157-8162.	7.1	57
71	Two-dimensional Hertzian contact problem with surface tension. International Journal of Solids and Structures, 2012, 49, 1588-1594.	2.7	55
72	On the internal architecture of emergent plants. Journal of the Mechanics and Physics of Solids, 2018, 119, 224-239.	4.8	55

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73	A piezoelectric constitutive theory with rotation gradient effects. European Journal of Mechanics, A/Solids, 2004, 23, 455-466.	3.7	54
74	Twisting of nanowires induced by anisotropic surface stresses. Applied Physics Letters, 2008, 92, .	3.3	54
75	Buckling and post-buckling of a stiff film resting on an elastic graded substrate. International Journal of Solids and Structures, 2012, 49, 1656-1664.	2.7	54
76	On flaw tolerance of nacre: a theoretical study. Journal of the Royal Society Interface, 2014, 11, 20131016.	3.4	54
77	Abnormal conductivity in low-angle twisted bilayer graphene. Science Advances, 2020, 6, .	10.3	54
78	Mechanical properties of silkworm cocoon pelades. Engineering Fracture Mechanics, 2007, 74, 1953-1962.	4.3	53
79	Estimate of effective elastic moduli with microcrack interaction effects. Theoretical and Applied Fracture Mechanics, 2000, 34, 225-233.	4.7	51
80	Dynamic stress intensity factors of a semi-infinite crack in an orthotropic functionally graded material. Mechanics of Materials, 2008, 40, 37-47.	3.2	51
81	Pattern instability of a soft elastic thin film under van der Waals forces. Mechanics of Materials, 2006, 38, 88-99.	3.2	47
82	Surface effects in various bending-based test methods for measuring the elastic property of nanowires. Nanotechnology, 2010, 21, 205702.	2.6	47
83	Surface effects on mode-I crack tip fields: A numerical study. Engineering Fracture Mechanics, 2010, 77, 1048-1057.	4.3	47
84	Perspectives in mechanics of heterogeneous solids. Acta Mechanica Solida Sinica, 2011, 24, 1-26.	1.9	47
85	Effects of nanofiber orientations on the fracture toughness of cellulose nanopaper. Engineering Fracture Mechanics, 2018, 194, 350-361.	4.3	47
86	A simple method for calculating interaction of numerous microcracks and its applications. International Journal of Solids and Structures, 2003, 40, 447-464.	2.7	45
87	Interface effects on the diffraction of plane compressional waves by a nanosized spherical inclusion. Journal of Applied Physics, 2007, 102, 043533.	2.5	45
88	Surface effects on the near-tip stress fields of a mode-II crack. International Journal of Fracture, 2008, 151, 95-106.	2.2	45
89	Theoretical model and design of electroadhesive pad with interdigitated electrodes. Materials and Design, 2016, 89, 485-491.	7.0	45
90	Revisiting the Critical Condition for the Cassieâ€“Wenzel Transition on Micropillar-Structured Surfaces. Langmuir, 2018, 34, 3838-3844.	3.5	45

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91	Effective Elastic and Plastic Properties of Interpenetrating Multiphase Composites. Applied Composite Materials, 2004, 11, 33-55.	2.5	43
92	Surface effects on the mechanical properties of nanoporous materials. Nanotechnology, 2011, 22, 265714.	2.6	43
93	Functional map of biological and biomimetic materials with hierarchical surface structures. RSC Advances, 2015, 5, 66901-66926.	3.6	43
94	Study of biomechanical, anatomical, and physiological properties of scorpion stingers for developing biomimetic materials. Materials Science and Engineering C, 2016, 58, 1112-1121.	7.3	43
95	Multiscale Analysis of Fracture of Carbon Nanotubes Embedded in Composites. International Journal of Fracture, 2005, 134, 369-386.	2.2	42
96	The Role of Adaptive-Deformation of Water Strider Leg in Its Walking on Water. Journal of Adhesion Science and Technology, 2009, 23, 493-501.	2.6	40
97	Self-equilibrium and super-stability of truncated regular polyhedral tensegrity structures: a unified analytical solution. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 3323-3347.	2.1	40
98	Axial compression-induced wrinkles on a coreâ€“shell soft cylinder: Theoretical analysis, simulations and experiments. Journal of the Mechanics and Physics of Solids, 2014, 73, 212-227.	4.8	40
99	Buckling of a slender rod confined in a circular tube: Theory, simulation, and experiment. International Journal of Mechanical Sciences, 2018, 140, 288-305.	6.7	40
100	Effects of thickness on mechanical properties of conducting polythiophene films. Journal of Materials Science Letters, 2002, 21, 715-717.	0.5	39
101	Effective elastic properties of nanoporous materials with hierarchical structure. Acta Materialia, 2011, 59, 6801-6808.	7.9	39
102	Friction of Droplets Sliding on Microstructured Superhydrophobic Surfaces. Langmuir, 2017, 33, 13480-13489.	3.5	39
103	Directional Motion of Droplets in a Conical Tube or on a Conical Fibre. Chinese Physics Letters, 2007, 24, 3210-3213.	3.3	38
104	Structures, properties, and energy-storage mechanisms of the semi-lunar process cuticles in locusts. Scientific Reports, 2016, 6, 35219.	3.3	38
105	Giant energy absorption capacity of graphene-based carbon honeycombs. Carbon, 2017, 118, 348-357.	10.3	38
106	Role of flexibility in the water repellency of water strider legs: Theory and experiment. Physical Review E, 2012, 85, 021607.	2.1	37
107	Hierarchical capillary adhesion of microcantilevers or hairs. Journal Physics D: Applied Physics, 2007, 40, 5564-5570.	2.8	36
108	Superior flexibility of super carbon nanotubes: Molecular dynamics simulations. Applied Physics Letters, 2007, 91, .	3.3	36

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109	An electromechanical liquid crystal model of vesicles. Journal of the Mechanics and Physics of Solids, 2008, 56, 2844-2862.	4.8	36
110	Constructing tensegrity structures from one-bar elementary cells. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 45-61.	2.1	36
111	Numerical study on the effects of hierarchical wavy interface morphology on fracture toughness. Computational Materials Science, 2012, 57, 14-22.	3.0	36
112	Curvature induced hierarchical wrinkling patterns in soft bilayers. Soft Matter, 2016, 12, 7977-7982.	2.7	36
113	Microtensile tests of mechanical properties of nanoporous Au thin films. Journal of Materials Science, 2009, 44, 4728-4733.	3.7	35
114	Orientations of Cells on Compliant Substrates under Biaxial Stretches: A Theoretical Study. Biophysical Journal, 2018, 114, 701-710.	0.5	35
115	Piezo1 regulates migration and invasion of breast cancer cells via modulating cell mechanobiological properties. Acta Biochimica Et Biophysica Sinica, 2020, 53, 10-18.	2.0	35
116	Molecular-Dynamic Studies of Carbonâ€“Waterâ€“Carbon Composite Nanotubes. Small, 2006, 2, 1348-1355.	10.0	34
117	Surface buckling of a bending microbeam due to surface elasticity. Europhysics Letters, 2007, 77, 44002.	2.0	34
118	Correlation of the thermal and electrical conductivities of nanoporous gold. Nanotechnology, 2010, 21, 085703.	2.6	34
119	Numerical exploration of plastic deformation mechanisms of copper nanowires with surface defects. Computational Materials Science, 2011, 50, 3425-3430.	3.0	34
120	Static and dynamic mechanical properties of cattle horns. Materials Science and Engineering C, 2011, 31, 179-183.	7.3	34
121	Wrinkling of a bilayer resting on a soft substrate under in-plane compression. Philosophical Magazine, 2012, 92, 1554-1568.	1.6	34
122	Wrinkling micropatterns regulated by a hard skin layer with a periodic stiffness distribution on a soft material. Applied Physics Letters, 2016, 108, 021903.	3.3	34
123	Energetics of mesoscale cell turbulence in two-dimensional monolayers. Communications Physics, 2021, 4, .	5.3	34
124	Transient response of an interface crack between dissimilar piezoelectric layers under mechanical impacts. International Journal of Solids and Structures, 2002, 39, 1743-1756.	2.7	33
125	Elasticity-driven droplet movement on a microbeam with gradient stiffness: A biomimetic self-propelling mechanism. Journal of Colloid and Interface Science, 2008, 323, 133-140.	9.4	33
126	An approximate continuum theory for interaction between dislocation and inhomogeneity of any shape and properties. Journal of Applied Physics, 2011, 109, .	2.5	33

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127	MoirÃ© superlattice-level stick-slip instability originated from geometrically corrugated graphene on a strongly interacting substrate. 2D Materials, 2017, 4, 025079.	4.4	33
128	Biomechanical modeling of surface wrinkling of soft tissues with growth-dependent mechanical properties. Acta Mechanica Solida Sinica, 2012, 25, 483-492.	1.9	32
129	A non-equilibrium thermodynamic model for tumor extracellular matrix with enzymatic degradation. Journal of the Mechanics and Physics of Solids, 2017, 104, 32-56.	4.8	32
130	Breaking the symmetry to suppress the Plateauâ€“Rayleigh instability and optimize hydropower utilization. Nature Communications, 2021, 12, 6899.	12.8	32
131	Two-dimensional model of vesicle adhesion on curved substrates. Acta Mechanica Sinica/Lixue Xuebao, 2006, 22, 529-535.	3.4	31
132	Mechanical Properties of Chitinâ€“Protein Interfaces: A Molecular Dynamics Study. BioNanoScience, 2013, 3, 312-320.	3.5	31
133	Integrin activation and internalization mediated by extracellular matrix elasticity: A biomechanical model. Journal of Biomechanics, 2014, 47, 1479-1484.	2.1	31
134	Morphomechanics of bacterial biofilms undergoing anisotropic differential growth. Applied Physics Letters, 2016, 109, .	3.3	31
135	On shakedown of three-dimensional elastoplastic strain-hardening structures. International Journal of Plasticity, 1996, 12, 1241-1256.	8.8	30
136	Limit analysis of ductile composites based on homogenization theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 659-675.	2.1	30
137	Buckling and postbuckling of a compressed thin film bonded on a soft elastic layer: a three-dimensional analysis. Archive of Applied Mechanics, 2010, 80, 175-188.	2.2	30
138	Channel morphology effect on water transport through graphene bilayers. Scientific Reports, 2016, 6, 38583.	3.3	30
139	Collective dynamics of cancer cells confined in a confluent monolayer of normal cells. Journal of Biomechanics, 2017, 52, 140-147.	2.1	30
140	Experimental and theoretical studies on the morphogenesis of bacterial biofilms. Soft Matter, 2017, 13, 7389-7397.	2.7	30
141	Contact stiffness of regularly patterned multi-asperity interfaces. Journal of the Mechanics and Physics of Solids, 2018, 111, 277-289.	4.8	30
142	Stoneâ€“Wales transformation: Precursor of fracture in carbon nanotubes. International Journal of Mechanical Sciences, 2006, 48, 1464-1470.	6.7	29
143	A phase field method for simulating morphological evolution of vesicles in electric fields. Journal of Computational Physics, 2009, 228, 4162-4181.	3.8	29
144	Effect of lateral dimension on the surface wrinkling of a thin film on compliant substrate induced by differential growth/swelling. Journal of the Mechanics and Physics of Solids, 2015, 83, 129-145.	4.8	29

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145	Morphological optimization of scorpion telson. Journal of the Mechanics and Physics of Solids, 2020, 135, 103773.	4.8	29
146	Structural topology optimization with an adaptive design domain. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114382.	6.6	29
147	Numerical analysis of interaction and coalescence of numerous microcracks. Engineering Fracture Mechanics, 2005, 72, 1841-1865.	4.3	28
148	Anisotropic surface effects on the formation of chiral morphologies of nanomaterials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 609-633.	2.1	28
149	A unified solution for self-equilibrium and super-stability of rhombic truncated regular polyhedral tensegrities. International Journal of Solids and Structures, 2013, 50, 234-245.	2.7	28
150	A truncated conical beam model for analysis of the vibration of rat whiskers. Journal of Biomechanics, 2013, 46, 1987-1995.	2.1	28
151	Disentangling longitudinal and shear elastic waves by neo-Hookean soft devices. Applied Physics Letters, 2015, 106, .	3.3	28
152	Mechanical Roles of F-Actin in the Differentiation of Stem Cells: A Review. ACS Biomaterials Science and Engineering, 2019, 5, 3788-3801.	5.2	28
153	Wrinkling pattern evolution on curved surfaces. Journal of the Mechanics and Physics of Solids, 2020, 135, 103798.	4.8	28
154	Domino-like stacking order switching in twisted monolayerâ€“multilayer graphene. Nature Materials, 2022, 21, 621-626.	27.5	28
155	Coarse-grained mechanochemical model for simulating the dynamic behavior of microtubules. Physical Review E, 2011, 84, 031933.	2.1	27
156	Spontaneous formation of double helical structure due to interfacial adhesion. Applied Physics Letters, 2012, 100, 263104.	3.3	27
157	A Numerical Method for Simulating Nonlinear Mechanical Responses of Tensegrity Structures Under Large Deformations. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	2.2	27
158	Surface Wrinkling Patterns of Filmâ€“Substrate Systems With a Structured Interface. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	2.2	27
159	Towards a quantitative understanding of period-doubling wrinkling patterns occurring in film/substrate bilayer systems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140695.	2.1	27
160	Stability of Cassie-Baxter wetting states on microstructured surfaces. Physical Review E, 2016, 94, 042801.	2.1	27
161	Effects of surface tension on the adhesive contact between a hard sphere and a soft substrate. International Journal of Solids and Structures, 2016, 84, 133-138.	2.7	27
162	Damage and shakedown analysis of structures with strain-hardening. International Journal of Plasticity, 1995, 11, 237-249.	8.8	26

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163	Transient response of an insulating crack between dissimilar piezoelectric layers under mechanical and electrical impacts. Archive of Applied Mechanics, 2002, 72, 615-629.	2.2	26
164	Theoretical analysis of resonance frequency change induced by adsorption. Journal Physics D: Applied Physics, 2008, 41, 125306.	2.8	26
165	Theoretical analysis of adsorption-induced microcantilever bending. Journal of Applied Physics, 2008, 103, .	2.5	26
166	Guided Selfâ€Propelled Leaping of Droplets on a Microâ€Anisotropic Superhydrophobic Surface. Angewandte Chemie, 2016, 128, 4337-4341.	2.0	26
167	Handedness-dependent hyperelasticity of biological soft fibers with multilayered helical structures. International Journal of Non-Linear Mechanics, 2016, 81, 19-29.	2.6	26
168	Propagation of Love waves with surface effects in an electrically-shorted piezoelectric nanofilm on a half-space elastic substrate. Ultrasonics, 2016, 66, 65-71.	3.9	26
169	Quasi-micromechanical damage model for brittle solids with interacting microcracks. Mechanics of Materials, 2004, 36, 261-273.	3.2	25
170	Determination of transformation stresses of shape memory alloy thin films: A method based on spherical indentation. Applied Physics Letters, 2006, 88, 241912.	3.3	25
171	Biomechanical tactics of chiral growth in emergent aquatic macrophytes. Scientific Reports, 2015, 5, 12610.	3.3	25
172	Quantum dots-reinforced luminescent silkworm silk with superior mechanical properties and highly stable fluorescence. Journal of Materials Science, 2019, 54, 9945-9957.	3.7	25
173	Effect of shear stress on adhesive contact with a generalized Maugis-Dugdale cohesive zone model. Journal of the Mechanics and Physics of Solids, 2021, 148, 104275.	4.8	25
174	Self-Assembled Nanostructures of Homopolymer and Diblock Copolymer Blends in a Selective Solvent. Journal of Physical Chemistry B, 2010, 114, 1257-1263.	2.6	24
175	On the Applicability of Sneddon's Solution for Interpreting the Indentation of Nonlinear Elastic Biopolymers. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	2.2	24
176	A nonlinear poroelastic theory of solid tumors with glycosaminoglycan swelling. Journal of Theoretical Biology, 2017, 433, 49-56.	1.7	24
177	Nacre's brickâ€“mortar structure suppresses the adverse effect of microstructural randomness. Journal of the Mechanics and Physics of Solids, 2022, 159, 104769.	4.8	24
178	A new micro-tensile system for measuring the mechanical properties of low-dimensional materialsâ€”Fibers and films. Polymer Testing, 2007, 26, 513-518.	4.8	23
179	Analysis of bending and buckling of pre-twisted beams: A bioinspired study. Acta Mechanica Sinica/Lixue Xuebao, 2014, 30, 507-515.	3.4	23
180	A self-consistent model for the elastic contact of rough surfaces. Acta Mechanica, 2015, 226, 285-293.	2.1	23

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181	Engineering Surface Patterns with Shape Memory Polymers: Multiple Design Dimensions for Diverse and Hierarchical Structures. ACS Applied Materials & Interfaces, 2019, 11, 1563-1570.	8.0	23
182	Optocapillarity-driven assembly and reconfiguration of liquid crystal polymer actuators. Nature Communications, 2020, 11, 5780.	12.8	23
183	Collective dynamics of coherent motile cells on curved surfaces. Soft Matter, 2020, 16, 2941-2952.	2.7	23
184	Micromechanical modelling of tensile response of elastic-brittle materials. International Journal of Solids and Structures, 1995, 32, 3359-3372.	2.7	22
185	Numerical simulations of the normal impact of adhesive microparticles with a rigid substrate. Powder Technology, 2009, 189, 34-41.	4.2	22
186	Design methods of rhombic tensegrity structures. Acta Mechanica Sinica/Lixue Xuebao, 2010, 26, 559-565.	3.4	22
187	Geometry independence of the normalized relaxation functions of viscoelastic materials in indentation. Philosophical Magazine, 2010, 90, 1639-1655.	1.6	22
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