Bo Li

List of Publications by Year
in descending order

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116 papers	3,759 citations	185998 28 h-index	155451 55 g-index
118 all docs	118 docs citations	118 times ranked	3726 citing authors

#	Article	IF	Citations
1	Nano/Micromotors in Active Matter. Micromachines, 2022, 13, 307.	1.4	5
2	Chemo-mechanical feedback in collective cell migration. Biophysical Journal, 2022, 121, 1117-1118.	0.2	0
3	Mechanical instability generated by Myosin 19 contributes to mitochondria cristae architecture and OXPHOS. Nature Communications, 2022, 13, 2673.	5.8	18
4	Self-rotation regulates interface evolution in biphasic active matter through taming defect dynamics. Physical Review E, 2022, 105, .	0.8	1
5	Fracture toughness analysis of helical fiber-reinforced biocomposites. Journal of the Mechanics and Physics of Solids, 2021, 146, 104206.	2.3	22
6	Collective Polarization of Cancer Cells at the Monolayer Boundary. Micromachines, 2021, 12, 112.	1.4	2
7	Energetics of mesoscale cell turbulence in two-dimensional monolayers. Communications Physics, 2021, 4, .	2.0	34
8	Collective migrations in an epithelialâ€“cancerous cell monolayer. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 773-784.	1.5	3
9	EML webinar overview: Dynamics of collective cells. Extreme Mechanics Letters, 2021, 44, 101255.	2.0	3
10	Formation and propagation of solitonlike defect clusters in confined active nematics with chiral anchoring. Physical Review Research, 2021, 3, .	1.3	6
11	Bio-chemo-mechanical theory of active shells. Journal of the Mechanics and Physics of Solids, 2021, 152, 104419.	2.3	18
12	Brownian Cargo Capture in Mazes via Intelligent Colloidal Microrobot Swarms. Advanced Intelligent Systems, 2021, 3, 2100115.	3.3	8
13	Patterning coexisted micro-/nanostructures for consequential camouflage via mechanical constraint harnessed surface instability. Applied Physics Letters, 2021, 119, .	1.5	3
14	Efficient Navigation of Colloidal Robots in an Unknown Environment via Deep Reinforcement Learning. Advanced Intelligent Systems, 2020, 2, 1900106.	3.3	40
15	A micromechanical model of tendon and ligament with crimped fibers. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104086.	1.5	8
16	Mesoscopic dynamic model of epithelial cell division with cell-cell junction effects. Physical Review E, 2020, 102, 012405.	0.8	8
17	Buckling of growing bacterial chains. Journal of the Mechanics and Physics of Solids, 2020, 145, 104146.	2.3	11
18	Universal Statistical Laws for the Velocities of Collective Migrating Cells. Advanced Biology, 2020, 4, e2000065.	3.0	13

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19	Pattern Formation and Defect Ordering in Active Chiral Nematics. Physical Review Letters, 2020, 125, 098002.	2.9	11
20	A function of fascin1 in the colony formation of mouse embryonic stem cells. Stem Cells, 2020, 38, 1078-1090.	1.4	3
21	Morphomechanics of tumors. Current Opinion in Biomedical Engineering, 2020, 15, 51-58.	1.8	6
22	The relation between the collective motility and shapes of human cancer cells under heat stress. Applied Physics Letters, 2020, 116, 043703.	1.5	1
23	Collective dynamics of coherent motile cells on curved surfaces. Soft Matter, 2020, 16, 2941-2952.	1.2	23
24	Micro/Nano Motor Navigation and Localization via Deep Reinforcement Learning. Advanced Theory and Simulations, 2020, 3, 2000034.	1.3	26
25	Mechanical adaptions of collective cells nearby free tissue boundaries. Journal of Biomechanics, 2020, 104, 109763.	0.9	5
26	Ciona embryonic tail bending is driven by asymmetrical notochord contractility and coordinated by epithelial proliferation. Development (Cambridge), 2020, 147, .	1.2	16
27	Advances in collective cell dynamics. Chinese Science Bulletin, 2020, 65, 3100-3117.	0.4	1
28	Heat Stress-Induced Multiple Multipolar Divisions of Human Cancer Cells. Cells, 2019, 8, 888.	1.8	7
29	Dynamic instability and migration modes of collective cells in channels. Journal of the Royal Society Interface, 2019, 16, 20190258.	1.5	18
30	A cell-based model for analyzing growth and invasion of tumor spheroids. Science China Technological Sciences, 2019, 62, 1341-1348.	2.0	5
31	Deep neural network method for predicting the mechanical properties of composites. Applied Physics Letters, 2019, 115, .	1.5	88
32	Unusual Sonochemical Assembly between Carbon Allotropes for High Strain-Tolerant Conductive Nanocomposites. ACS Nano, 2019, 13, 12062-12069.	7.3	2
33	Mechanical Roles of F-Actin in the Differentiation of Stem Cells: A Review. ACS Biomaterials Science and Engineering, 2019, 5, 3788-3801.	2.6	28
34	Quantum dots-reinforced luminescent silkworm silk with superior mechanical properties and highly stable fluorescence. Journal of Materials Science, 2019, 54, 9945-9957.	1.7	25
35	Multiscale fracture mechanics model for the dorsal closure in Drosophila embryogenesis. Journal of the Mechanics and Physics of Solids, 2019, 127, 154-166.	2.3	9
36	Torsion Instability of Anisotropic Cylindrical Tissues with Growth. Acta Mechanica Solida Sinica, 2019, 32, 621-632.	1.0	6

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37	Ultrastructural organization of NompC in the mechanoreceptive organelle of Drosophila campaniform mechanoreceptors. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7343-7352.	3.3	21
38	Regulating wrinkling patterns by periodic surface stiffness in film-substrate structures. Science China Technological Sciences, 2019, 62, 747-754.	2.0	7
39	Collective oscillation in dense suspension of self-propelled chiral rods. Soft Matter, 2019, 15, 2999-3007.	1.2	10
40	A simulation algorithm for Brownian dynamics on complex curved surfaces. Journal of Chemical Physics, 2019, 151, 164901.	1.2	7
41	Programmable and robust static topological solitons in mechanical metamaterials. Nature Communications, 2019, 10, 5605.	5.8	69
42	Three-dimensional collective cell motions in an acinus-like lumen. Journal of Biomechanics, 2019, 84, 234-242.	0.9	7
43	Bioâ€“chemoâ€“mechanical modeling of growing biological tissues: Finite element method. International Journal of Non-Linear Mechanics, 2019, 108, 46-54.	1.4	14
44	Engineering Surface Patterns with Shape Memory Polymers: Multiple Design Dimensions for Diverse and Hierarchical Structures. ACS Applied Materials & Interfaces, 2019, 11, 1563-1570.	4.0	23
45	Mechanisms of electromechanical wrinkling for highly stretched substrate-free dielectric elastic membrane. Journal of the Mechanics and Physics of Solids, 2019, 122, 520-537.	2.3	21
46	Revisiting the Critical Condition for the Cassieâ€“Wenzel Transition on Micropillar-Structured Surfaces. Langmuir, 2018, 34, 3838-3844.	1.6	45
47	Effects of nanofiber orientations on the fracture toughness of cellulose nanopaper. Engineering Fracture Mechanics, 2018, 194, 350-361.	2.0	47
48	Surface wrinkling of anisotropic films bonded on a compliant substrate. International Journal of Solids and Structures, 2018, 141-142, 219-231.	1.3	21
49	Wrinkling patterns in soft shells. Soft Matter, 2018, 14, 1681-1688.	1.2	12
50	Wrinkling of thin films on a microstructured substrate. Mechanics of Advanced Materials and Structures, 2018, 25, 975-981.	1.5	5
51	An oscillating dynamic model of collective cells in a monolayer. Journal of the Mechanics and Physics of Solids, 2018, 112, 650-666.	2.3	16
52	Dynamic Migration Modes of Collective Cells. Biophysical Journal, 2018, 115, 1826-1835.	0.2	63
53	Functional gradient effects on the energy absorption of spider orb webs. Applied Physics Letters, 2018, 113, .	1.5	21
54	Swertia mussotii extracts induce mitochondria-dependent apoptosis in gastric cancer cells. Biomedicine and Pharmacotherapy, 2018, 104, 603-612.	2.5	9

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55	Voltage-Induced Wrinkle Performance in a Hydrogel by Dielectric Elastomer Actuation. Polymers, 2018, 10, 697.	2.0	8
56	Biochemomechanical modeling of vascular collapse in growing tumors. Journal of the Mechanics and Physics of Solids, 2018, 121, 463-479.	2.3	22
57	A multiscale crack-bridging model of cellulose nanopaper. Journal of the Mechanics and Physics of Solids, 2017, 103, 22-39.	2.3	75
58	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
59	A Role of BK Channel in Regulation of Ca 2+ Channel in Ventricular Myocytes by Substrate Stiffness. Biophysical Journal, 2017, 112, 1406-1416.	0.2	12
60	Edge wrinkling of a soft ridge with gradient thickness. Applied Physics Letters, 2017, 110, .	1.5	9
61	A dynamic cellular vertex model of growing epithelial tissues. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 250-259.	1.5	19
62	Collective dynamics of cancer cells confined in a confluent monolayer of normal cells. Journal of Biomechanics, 2017, 52, 140-147.	0.9	30
63	Friction of Droplets Sliding on Microstructured Superhydrophobic Surfaces. Langmuir, 2017, 33, 13480-13489.	1.6	39
64	A nonlinear poroelastic theory of solid tumors with glycosaminoglycan swelling. Journal of Theoretical Biology, 2017, 433, 49-56.	0.8	24
65	Experimental and theoretical studies on the morphogenesis of bacterial biofilms. Soft Matter, 2017, 13, 7389-7397.	1.2	30
66	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.	3.3	57
67	Line tension effects on the wetting of nanostructures: an energy method. Nanotechnology, 2017, 28, 384001.	1.3	8
68	Bulge test method for measuring the hyperelastic parameters of soft membranes. Acta Mechanica, 2017, 228, 4187-4197.	1.1	13
69	Microbead-regulated surface wrinkling patterns in a filmâ€“substrate system. Applied Physics Letters, 2017, 111, .	1.5	4
70	Phase Characterization of Cucumber Growth: A Chemical Gel Model. International Journal of Polymer Science, 2016, 2016, 1-8.	1.2	1
71	Morphomechanics of bacterial biofilms undergoing anisotropic differential growth. Applied Physics Letters, 2016, 109, .	1.5	31
72	Wrinkling micropatterns regulated by a hard skin layer with a periodic stiffness distribution on a soft material. Applied Physics Letters, 2016, 108, 021903.	1.5	34

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73	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.	2.3	57
74	A Tensegrity Model of Cell Reorientation on Cyclically Stretched Substrates. Biophysical Journal, 2016, 111, 1478-1486.	0.2	65
75	Cell density and actomyosin contractility control the organization of migrating collectives within an epithelium. Molecular Biology of the Cell, 2016, 27, 3459-3470.	0.9	36
76	Stability of Cassie-Baxter wetting states on microstructured surfaces. Physical Review E, 2016, 94, 042801.	0.8	27
77	Biochemomechanical poroelastic theory of avascular tumor growth. Journal of the Mechanics and Physics of Solids, 2016, 94, 409-432.	2.3	61
78	Handedness-dependent hyperelasticity of biological soft fibers with multilayered helical structures. International Journal of Non-Linear Mechanics, 2016, 81, 19-29.	1.4	26
79	Micromechanics methods for evaluating the effective moduli of soft neo-Hookean composites. Archive of Applied Mechanics, 2016, 86, 219-234.	1.2	8
80	Response to â€œComment on â€˜Disentangling longitudinal and shear elastic waves by neo-Hookean soft devicesâ€™â€•[Appl. Phys. Lett. 107, 056101 (2015)]. Applied Physics Letters, 2015, 107, .	1.5	1
81	Disentangling longitudinal and shear elastic waves by neo-Hookean soft devices. Applied Physics Letters, 2015, 106, .	1.5	28
82	Wrinkling pattern evolution of cylindrical biological tissues with differential growth. Physical Review E, 2015, 91, 012403.	0.8	21
83	Volume regulation and shape bifurcation in the cell nucleus. Journal of Cell Science, 2015, 128, 3375-85.	1.2	104
84	Bacterial growth and form under mechanical compression. Scientific Reports, 2015, 5, 11367.	1.6	52
85	Surface Wrinkling Patterns of Filmâ€“Substrate Systems With a Structured Interface. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.1	27
86	How do changes at the cell level affect the mechanical properties of epithelial monolayers?. Soft Matter, 2015, 11, 8782-8788.	1.2	28
87	Polarity mechanisms such as contact inhibition of locomotion regulate persistent rotational motion of mammalian cells on micropatterns. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14770-14775.	3.3	131
88	Coherent Motions in Confluent Cell Monolayer Sheets. Biophysical Journal, 2014, 107, 1532-1541.	0.2	105
89	Effects of internal pressure and surface tension on the growth-induced wrinkling of mucosae. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 594-601.	1.5	19
90	Buckling and postbuckling of stiff lamellae in a compliant matrix. Composites Science and Technology, 2014, 99, 89-95.	3.8	18

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91	Tissueâ€“Growth Model for the Swelling Analysis of Coreâ€“Shell Hydrogels. Soft Materials, 2013, 11, 117-124.	0.8	10
92	Surface wrinkling and folding of coreâ€“shell soft cylinders. Soft Matter, 2012, 8, 556-562.	1.2	68
93	Biomechanical modeling of surface wrinkling of soft tissues with growth-dependent mechanical properties. Acta Mechanica Solida Sinica, 2012, 25, 483-492.	1.0	32
94	Mechanics of morphological instabilities and surface wrinkling in soft materials: a review. Soft Matter, 2012, 8, 5728.	1.2	620
95	Surface Wrinkling Patterns on a Core-Shell Soft Sphere. Physical Review Letters, 2011, 106, 234301.	2.9	207
96	Mucosal wrinkling in animal antra induced by volumetric growth. Applied Physics Letters, 2011, 98, .	1.5	12
97	Spontaneous instability of soft thin films on curved substrates due to van der Waals interaction. Journal of the Mechanics and Physics of Solids, 2011, 59, 610-624.	2.3	18
98	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
99	Growth and surface folding of esophageal mucosa: A biomechanical model. Journal of Biomechanics, 2011, 44, 182-188.	0.9	70
100	Surface effects in various bending-based test methods for measuring the elastic property of nanowires. Nanotechnology, 2010, 21, 205702.	1.3	47
101	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.	1.2	30
102	Dislocation-based semi-analytical method for calculating stress intensity factors of cracks: Two-dimensional cases. Engineering Fracture Mechanics, 2010, 77, 3521-3531.	2.0	13
103	A molecular mechanisms-based biophysical model for two-phase cell spreading. Applied Physics Letters, 2010, 96, 043703.	1.5	21
104	Surface wrinkling of nanostructured thin films on a compliant substrate. Computational Materials Science, 2010, 49, 767-772.	1.4	15
105	Theoretical study of the competition between cell-cell and cell-matrix adhesions. Physical Review E, 2009, 80, 011921.	0.8	20
106	Morphological instability of spherical soft particles induced by surface charges. Applied Physics Letters, 2009, 95, 021903.	1.5	7
107	Determining the elastic modulus of thin films using a buckling-based method: computational study. Journal Physics D: Applied Physics, 2009, 42, 175506.	1.3	10
108	Surface patterning of soft polymer film-coated cylinders via an electric field. Journal of Physics Condensed Matter, 2009, 21, 445006.	0.7	15

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109	Determination of the elastic modulus of micro- and nanowires/tubes using a buckling-based metrology. Scripta Materialia, 2009, 61, 1044-1047.	2.6	16
110	Surface effects on the elastic modulus of nanoporous materials. Applied Physics Letters, 2009, 94, .	1.5	96
111	Self-assembled lipid nanostructures encapsulating nanoparticles in aqueous solution. Soft Matter, 2009, 5, 3977.	1.2	19
112	A moving screw dislocation near interfacial rigid lines in two dissimilar anisotropic media. Applied Mathematics and Mechanics (English Edition), 2008, 29, 625-637.	1.9	0
113	Three-dimensional analysis of spontaneous surface instability and pattern formation of thin soft films. Journal of Applied Physics, 2008, 103, 083501.	1.1	16
114	Interaction between a screw dislocation and a circular inhomogeneity with an interfacial crack in viscoelastic media. Central South University, 2007, 14, 354-358.	0.5	1
115	Viscoelastic interaction between a screw dislocation and a circular interfacial rigid line. Central South University, 2007, 14, 359-364.	0.5	2
116	Interaction Between a Screw Dislocation and a Piezoelectric Circular Inhomogeneity with Interfacial Cracks in Viscoelastic Matrix. Applied Rheology, 2006, 16, 102-109.	3.5	1