Ben Fabry

List of Publications by Year
in descending order

188 papers	16,488 citations	12597 71 h-index	18944 123 g-index
209 all docs	209 docs citations	209 times ranked	16110 citing authors

#	Article	IF	Citations
1	The desmin mutation R349P increases contractility and fragility of stem cellâ€generated muscle microâ€tissues. Neuropathology and Applied Neurobiology, 2022, 48, .	1.8	9
2	Plectin-mediated cytoskeletal crosstalk controls cell tension and cohesion in epithelial sheets. Journal of Cell Biology, 2022, 221, .	2.3	26
3	The focal adhesion protein Î²-parvin controls cardiomyocyte shape and sarcomere assembly in response to mechanical load. Current Biology, 2022, 32, 3033-3047.e9.	1.8	6
4	A low-cost uniaxial cell stretcher for six parallel wells. HardwareX, 2021, 9, e00162.	1.1	10
5	Plectin ensures intestinal epithelial integrity and protects colon against colitis. Mucosal Immunology, 2021, 14, 691-702.	2.7	18
6	Bioprinting and Differentiation of Adipose-Derived Stromal Cell Spheroids for a 3D Breast Cancer-Adipose Tissue Model. Cells, 2021, 10, 803.	1.8	46
7	pyTFM: A tool for traction force and monolayer stress microscopy. PLoS Computational Biology, 2021, 17, e1008364.	1.5	23
8	Stress relaxation amplitude of hydrogels determines migration, proliferation, and morphology of cells in 3-D culture. Biomaterials Science, 2021, 10, 270-280.	2.6	17
9	Measurement of Skeletal Muscle Fiber Contractility with High-Speed Traction Microscopy. Biophysical Journal, 2020, 118, 657-666.	0.2	15
10	Cryopreservation impairs 3-D migration and cytotoxicity of natural killer cells. Nature Communications, 2020, 11, 5224.	5.8	40
11	micrObs â€" A customizable time-lapse camera for ecological studies. HardwareX, 2020, 8, e00134.	1.1	2
12	Mesenchymal-Like Migration Strategies of Immune Cells in a 3D Environment. Biophysical Journal, 2020, 118, 600a.	0.2	0
13	Flow and hydrodynamic shear stress inside a printing needle during biofabrication. PLoS ONE, 2020, 15, e0236371.	1.1	32
14	Collective Synchronization of Contractile Forces in Tumor Spheroids. Biophysical Journal, 2020, 118, 606a.	0.2	0
15	High-Force Magnetic Tweezers with Hysteresis-Free Force Feedback. Biophysical Journal, 2020, 119, 15-23.	0.2	11
16	Measurement of Skeletal Muscle Fiber Contractility with High-Speed Traction Microscopy. Biophysical Journal, 2020, 118, 280a.	0.2	0
17	Durotropic Growth of Pollen Tubes. Plant Physiology, 2020, 183, 558-569.	2.3	25
18	Collective forces of tumor spheroids in three-dimensional biopolymer networks. ELife, 2020, 9, .	2.8	35

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19	CameraTransform: A Python package for perspective corrections and image mapping. SoftwareX, 2019, 10, 100333.	1.2	20
20	Anodic Titanium Dioxide Nanotubes for Magnetically Guided Therapeutic Delivery. Scientific Reports, 2019, 9, 13439.	1.6	28
21	Treatment of keratinocytes with 4-phenylbutyrate in epidermolysis bullosa: Lessons for therapies in keratin disorders. EBioMedicine, 2019, 44, 502-515.	2.7	23
22	Multiple cyclic nucleotideâ€gated channels coordinate calcium oscillations and polar growth of root hairs. Plant Journal, 2019, 99, 910-923.	2.8	54
23	Imaging localized neuronal activity at fast time scales through biomechanics. Science Advances, 2019, 5, eaav3816.	4.7	32
24	Breast Cancer Cells Adapt Contractile Forces to Overcome Steric Hindrance. Biophysical Journal, 2019, 116, 1305-1312.	0.2	39
25	Intracellular Drug Delivery with Anodic Titanium Dioxide Nanotubes and Nanocylinders. ACS Applied Materials & Interfaces, 2019, 11, 14980-14985.	4.0	29
26	Structural organisation and dynamics in king penguin colonies. Journal Physics D: Applied Physics, 2018, 51, 164004.	1.3	11
27	A remoteâ€controlled observatory for behavioural and ecological research: A case study on emperor penguins. Methods in Ecology and Evolution, 2018, 9, 1168-1178.	2.2	13
28	Phase transitions in huddling emperor penguins. Journal Physics D: Applied Physics, 2018, 51, 214002.	1.3	11
29	NR4A1 Regulates Motility of Osteoclast Precursors and Serves as Target for the Modulation of Systemic Bone Turnover. Journal of Bone and Mineral Research, 2018, 33, 2035-2047.	3.1	15
30	Pressure-driven collective growth mechanism of planar cell colonies. Journal Physics D: Applied Physics, 2018, 51, 304004.	1.3	2
31	Bayesian model selection for complex dynamic systems. Nature Communications, 2018, 9, 1803.	5.8	50
32	The focal adhesion targeting (FAT) domain of p130 Crk associated substrate (p130Cas) confers mechanosensing function. Journal of Cell Science, 2017, 130, 1263-1273.	1.2	10
33	Unbiased High-Precision Cell Mechanical Measurements with Microconstrictions. Biophysical Journal, 2017, 112, 1472-1480.	0.2	50
34	The role of focal adhesion anchoring domains of CAS in mechanotransduction. Scientific Reports, 2017, 7, 46233.	1.6	23
35	Early signs of architectural and biomechanical failure in isolated myofibers and immortalized myoblasts from desmin-mutant knock-in mice. Scientific Reports, 2017, 7, 1391.	1.6	35
36	Traction Force Microscopy in 3â€Dimensional Extracellular Matrix Networks. Current Protocols in Cell Biology, 2017, 75, 10.22.1-10.22.20.	2.3	24

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37	Adaptive stochastic resonance for unknown and variable input signals. Scientific Reports, 2017, 7, 2450.	1.6	51
38	<i>ClickPoints</i>: an expandable toolbox for scientific image annotation and analysis. Methods in Ecology and Evolution, 2017, 8, 750-756.	2.2	42
39	Mechanical plasticity of cells. Nature Materials, 2016, 15, 1090-1094.	13.3	121
40	The IsoStretcher: An isotropic cell stretch device to study mechanical biosensor pathways in living cells. Biosensors and Bioelectronics, 2016, 81, 363-372.	5.3	40
41	Cell Adhesion on Surface-Functionalized Magnesium. ACS Applied Materials & Interfaces, 2016, 8, 11998-12006.	4.0	41
42	N-cadherin-functionalized polymer-tethered multi-bilayer: a cell surface-mimicking substrate to probe cellular mechanosensitivity. Soft Matter, 2016, 12, 8274-8284.	1.2	7
43	ATRA mechanically reprograms pancreatic stellate cells to suppress matrix remodelling and inhibit cancer cell invasion. Nature Communications, 2016, 7, 12630.	5.8	200
44	Differential response of patient-derived primary glioblastoma cells to environmental stiffness. Scientific Reports, 2016, 6, 23353.	1.6	68
45	Examining Spatio-Temporal Dynamics of Cell-Substrate Linkers during Cell Migration using Polymer-Tethered Lipid Multi-Bilayers of Adjustable Stiffness. Biophysical Journal, 2016, 110, 132a-133a.	0.2	0
46	Cell Mechanical Properties Measured with Micron-Scale Constrictions: Influence of Pressure, Strain and Culture Conditions. Biophysical Journal, 2016, 110, 135a.	0.2	0
47	Three-dimensional force microscopy of cells in biopolymer networks. Nature Methods, 2016, 13, 171-176.	9.0	264
48	The Role of Heterogeneity in Cancer Cell Migration. Biophysical Journal, 2016, 110, 621a.	0.2	0
49	Corrosion, Surface Modification, and Biocompatibility of Mg and Mg Alloys. , 2016, , 625-628.		0
50	Probing Cellular Mechano-Sensitivity using Biomembrane-Mimicking Cell Substrates of Adjustable Stiffness. Biophysical Journal, 2015, 108, 305a.	0.2	0
51	Determining the mechanical properties of plectin in mouse myoblasts and keratinocytes. Experimental Cell Research, 2015, 331, 331-337.	1.2	34
52	Biphasic response of cell invasion to matrix stiffness in three-dimensional biopolymer networks. Acta Biomaterialia, 2015, 13, 61-67.	4.1	122
53	Vinculin phosphorylation at residues Y100 and Y1065 is required for cellular force transmission. Journal of Cell Science, 2015, 128, 3435-43.	1.2	48
54	Vinculin is required for cell polarization, migration, and extracellular matrix remodeling in 3D collagen. FASEB Journal, 2015, 29, 4555-4567.	0.2	90

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55	Microconstriction Arrays for High-Throughput Quantitative Measurements of Cell Mechanical Properties. Biophysical Journal, 2015, 109, 26-34.	0.2	132
56	Alginate-based hydrogels with improved adhesive properties for cell encapsulation. International Journal of Biological Macromolecules, 2015, 78, 72-78.	3.6	118
57	Imaging viscoelastic properties of live cells by AFM: power-law rheology on the nanoscale. Soft Matter, 2015, 11, 4584-4591.	1.2	140
58	Mechanotransduction: use the force(s). BMC Biology, 2015, 13, 47.	1.7	183
59	Stress controls the mechanics of collagen networks. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9573-9578.	3.3	284
60	Superstatistical analysis and modelling of heterogeneous random walks. Nature Communications, 2015, 6, 7516.	5.8	89
61	Migration in Confined 3D Environments Is Determined by a Combination of Adhesiveness, Nuclear Volume, Contractility, and Cell Stiffness. Biophysical Journal, 2015, 109, 900-913.	0.2	164
62	Activation and regulation of endogenous retroviral genes in the human pituitary gland and related endocrine tumours. Neuropathology and Applied Neurobiology, 2015, 41, 180-200.	1.8	17
63	In-Vivo Imaging of Cell Migration Using Contrast Enhanced MRI and SVM Based Post-Processing. PLoS ONE, 2015, 10, e0140548.	1.1	4
64	Emergence of Asynchronous Local Clocks in Excitable Media. PLoS ONE, 2015, 10, e0142490.	1.1	0
65	Are environmental factors responsible for changed breeding behaviour in emperor penguins?. Antarctic Science, 2014, 26, 563-564.	0.5	4
66	Labeling of cancer cells with magnetic nanoparticles for magnetic resonance imaging. Magnetic Resonance in Medicine, 2014, 71, 1896-1905.	1.9	13
67	CAS directly interacts with vinculin to control mechanosensing and focal adhesion dynamics. Cellular and Molecular Life Sciences, 2014, 71, 727-744.	2.4	55
68	Fibrous protein-based hydrogels for cell encapsulation. Biomaterials, 2014, 35, 6727-6738.	5.7	136
69	Behavior of Encapsulated MG-63 Cells in RGD and Gelatine-Modified Alginate Hydrogels. Tissue Engineering - Part A, 2014, 20, 2140-2150.	1.6	98
70	Biomembrane-mimicking lipid bilayer system as a mechanically tunable cell substrate. Biomaterials, 2014, 35, 3198-3207.	5.7	41
71	Comparing the Mechanical Properties of Plectin in Myoblasts, Keratinocytes, and Endothelial Cells. Biophysical Journal, 2014, 106, 162a.	0.2	0
72	Nuclear Deformability is Critically Dependent on Lamin A/B. Biophysical Journal, 2014, 106, 576a.	0.2	1

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73	Probing Mechanosensitivity of 3T3 Fibroblasts on Biomembrane-Mimicking Cell Substrates. Biophysical Journal, 2014, 106, 172a-173a.	0.2	0
74	Migration, Force Generation and Mechanosensing of Cells in Collagen Gels. Biophysical Journal, 2014, 106, 425a.	0.2	0
75	Mechanics and Structure of Fibrin Networks Polymerized under Oscillatory Shear Perturbations. Biophysical Journal, 2013, 104, 142a.	0.2	0
76	Quantifying Cell-to-Cell Variation in Power-Law Rheology. Biophysical Journal, 2013, 105, 1093-1102.	0.2	84
77	Identification of DAPK as a scaffold protein for the LIMK/cofilin complex in TNF-induced apoptosis. International Journal of Biochemistry and Cell Biology, 2013, 45, 1720-1729.	1.2	22
78	Mechanosensing of Cells in Laminin-Fuctionalized Biomembrane-Mimicking Substrates. Biophysical Journal, 2013, 104, 319a.	0.2	0
79	Strain history dependence of the nonlinear stress response of fibrin and collagen networks. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12197-12202.	3.3	224
80	The origin of traveling waves in an emperor penguin huddle. New Journal of Physics, 2013, 15, 125022.	1.2	30
81	Estimating the 3D Pore Size Distribution of Biopolymer Networks from Directionally Biased Data. Biophysical Journal, 2013, 105, 1967-1975.	0.2	96
82	Structure and mechanics of fibrin clots formed under mechanical perturbation. Journal of Thrombosis and Haemostasis, 2013, 11, 557-560.	1.9	17
83	Cell and tissue mechanics in cell migration. Experimental Cell Research, 2013, 319, 2418-2423.	1.2	155
84	A Simplified Implementation of the Bubble Analysis of Biopolymer Network Pores. Biophysical Journal, 2013, 104, 2774-2775.	0.2	44
85	Vinculin, cell mechanics and tumour cell invasion. Cell Biology International, 2013, 37, 397-405.	1.4	79
86	Acquisition of paclitaxel resistance is associated with a more aggressive and invasive phenotype in prostate cancer. Journal of Cellular Biochemistry, 2013, 114, 1286-1293.	1.2	56
87	Occupy tissue. Cell Adhesion and Migration, 2012, 6, 424-520.	1.1	21
88	Estimation of Cellular Forces during Migration through Non-Linear and Non-Affine Collagen Networks. Biophysical Journal, 2012, 102, 220a.	0.2	0
89	Cellular Mechano-Stimulation by Adjusting the Viscous Drag of Cell-Substrate Linkers in Biomembrane-Mimicking Cell Substrates. Biophysical Journal, 2012, 102, 565a.	0.2	0
90	Biomechanical characterization of a desminopathy in primary human myoblasts. Biochemical and Biophysical Research Communications, 2012, 419, 703-707.	1.0	44

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91	Direct Observation of Catch-Bonds in Focal Adhesions of Living Cells. Biophysical Journal, 2012, 102, 12a.	0.2	0
92	Parameter-Free Binarization and Skeletonization of Fiber Networks from Confocal Image Stacks. PLoS ONE, 2012, 7, e36575.	1.1	22
93	Akt and p53 are potential mediators of reduced mammary tumor growth by Chloroquine and the mTOR inhibitor RAD001. Biochemical Pharmacology, 2012, 83, 480-488.	2.0	39
94	Inhibition of Rho kinases increases directional motility of microvascular endothelial cells. Biochemical Pharmacology, 2012, 83, 616-626.	2.0	23
95	3D Traction Forces in Cancer Cell Invasion. PLoS ONE, 2012, 7, e33476.	1.1	277
96	NEDD9 Stabilizes Focal Adhesions, Increases Binding to the Extra-Cellular Matrix and Differentially Effects 2D versus 3D Cell Migration. PLoS ONE, 2012, 7, e35058.	1.1	39
97	Nonlinear viscoelasticity of adherent cells is controlled by cytoskeletal tension. Soft Matter, 2011, 7, 3127-3132.	1.2	124
98	The GPI-Anchored Receptor CD24 Increases Cancer Cell Invasion through Enhanced Contractile Forces. Biophysical Journal, 2011, 100, 600a.	0.2	0
99	Mechano-Stimulation of Fibroblasts by Adjusting Viscous Drag of Mobile Cell Linkers in Biomembrane-Mimicking Substrates. Biophysical Journal, 2011, 100, 440a.	0.2	0
100	In Vivo Imaging of Tumor Cell Migration. Biophysical Journal, 2011, 100, 143a.	0.2	0
101	Focal Adhesion Kinase Stabilizes the Cytoskeleton. Biophysical Journal, 2011, 101, 2131-2138.	0.2	87
102	Linear and Nonlinear Rheology of Living Cells. Annual Review of Materials Research, 2011, 41, 75-97.	4.3	336
103	The Integrins Î±5Î²1 and Î±2Î²1 Enhance Cell Motility. Biophysical Journal, 2011, 100, 599a.	0.2	0
104	Head/tail interaction of vinculin influences cell mechanical behavior. Biochemical and Biophysical Research Communications, 2011, 406, 85-88.	1.0	25
105	Calcium imaging in the optical stretcher. Optics Express, 2011, 19, 19212.	1.7	17
106	Coordinated Movements Prevent Jamming in an Emperor Penguin Huddle. PLoS ONE, 2011, 6, e20260.	1.1	49
107	Control of magnesium corrosion and biocompatibility with biomimetic coatings. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 96B, 84-90.	1.6	137
108	Corrosion of Mg alloy AZ91D in the presence of living cells. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 99B, 276-281.	1.6	64

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109	Anodic mesoporous TiO2 layer on Ti for enhanced formation of biomimetic hydroxyapatite. Acta Biomaterialia, 2011, 7, 1873-1879.	4.1	56
110	Integrin Î±5Î²1 facilitates cancer cell invasion through enhanced contractile forces. Journal of Cell Science, 2011, 124, 369-383.	1.2	219
111	Integrin adhesion and force coupling are independently regulated by localized PtdIns(4,5)₂synthesis. EMBO Journal, 2011, 30, 4539-4553.	3.5	80
112	Corrosion, Surface Modification, and Biocompatibility of Mg and Mg Alloys. , 2011, , 409-412.		0
113	The role of the tissue microenvironment in the regulation of cancer cell motility and invasion. Cell Communication and Signaling, 2010, 8, 22.	2.7	154
114	Pulling it together in three dimensions. Nature Methods, 2010, 7, 963-965.	9.0	5
115	Vinculin Facilitates Cell Invasion into Three-dimensional Collagen Matrices. Journal of Biological Chemistry, 2010, 285, 13121-13130.	1.6	169
116	Fluctuations of cytoskeleton-bound microbeadsâ€"the effect of beadâ€"receptor binding dynamics. Journal of Physics Condensed Matter, 2010, 22, 194105.	0.7	16
117	Non-Linear Mechanical Properties of Collagen Networks During Cyclic Loading. Biophysical Journal, 2010, 98, 558a-559a.	0.2	2
118	A Blind Spot in Confocal Reflection Microscopy: The Dependence of Fiber Brightness on Fiber Orientation in Imaging Biopolymer Networks. Biophysical Journal, 2010, 98, L1-L3.	0.2	50
119	Vinculin and Fak Facilite Cell Invasion in Dense 3D-Extracellualr Matrix Networks. Biophysical Journal, 2010, 98, 19a.	0.2	0
120	Size-Selective Separation of Macromolecules by Nanochannel Titania Membrane with Self-Cleaning (Declogging) Ability. Journal of the American Chemical Society, 2010, 132, 7893-7895.	6.6	79
121	Nonlinear mechanical response of adherent cells measured by magnetic bead microrheology. Bone, 2010, 46, S50-S51.	1.4	0
122	Breast Cancer Cells Reduce the Stiffness of Endothelial Cells. Biophysical Journal, 2010, 98, 731a-732a.	0.2	1
123	Noise and critical phenomena in biochemical signaling cycles at small molecule numbers. Physical Review E, 2009, 80, 021915.	0.8	1
124	Single-cell response to stiffness exhibits muscle-like behavior. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18243-18248.	3.3	202
125	Magnetically Guided Titania Nanotubes for Siteâ€Selective Photocatalysis and Drug Release. Angewandte Chemie - International Edition, 2009, 48, 969-972.	7.2	210
126	Effect of surface pre-treatments on biocompatibility of magnesium. Acta Biomaterialia, 2009, 5, 2783-2789.	4.1	155

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127	Filamin A Is Essential for Active Cell Stiffening but not Passive Stiffening under External Force. Biophysical Journal, 2009, 96, 4326-4335.	0.2	98
128	Anchorage of Vinculin to Lipid Membranes Influences Cell Mechanical Properties. Biophysical Journal, 2009, 97, 3105-3112.	0.2	38
129	Active soft glassy rheology of adherent cells. Soft Matter, 2009, 5, 1771.	1.2	62
130	Robust Pore Size Analysis of Filamentous Networks from 3D Confocal Microscopy. Biophysical Journal, 2009, 96, 298a.	0.2	1
131	Strain Stiffening And Soft Glassy Rheology In A Generalized Sliding Filament Model. Biophysical Journal, 2009, 96, 522a.	0.2	0
132	Non-linear Rheology Of Collagen Type I Gels Probed On The Length Scale Of A Migrating Cell. Biophysical Journal, 2009, 96, 522a.	0.2	1
133	Neutrophil morphology and migration are affected by substrate elasticity. Blood, 2009, 114, 1387-1395.	0.6	169
134	Hydrodynamic thickening of lubricating fluid layer beneath sliding mesothelial tissues. Journal of Biomechanics, 2008, 41, 1197-1205.	0.9	6
135	Contractile forces in tumor cell migration. European Journal of Cell Biology, 2008, 87, 669-676.	1.6	154
136	Mechano-Coupling and Regulation of Contractility by the Vinculin Tail Domain. Biophysical Journal, 2008, 94, 661-670.	0.2	157
137	Breakdown of the Endothelial Barrier Function in Tumor Cell Transmigration. Biophysical Journal, 2008, 94, 2832-2846.	0.2	107
138	Robust Pore Size Analysis of Filamentous Networks from Three-Dimensional Confocal Microscopy. Biophysical Journal, 2008, 95, 6072-6080.	0.2	131
139	CD24 induces localization of Î²1 integrin to lipid raft domains. Biochemical and Biophysical Research Communications, 2008, 365, 35-41.	1.0	74
140	Up-Regulation of Rho/ROCK Signaling in Sarcoma Cells Drives Invasion and Increased Generation of Protrusive Forces. Molecular Cancer Research, 2008, 6, 1410-1420.	1.5	96
141	Superdiffusive Motion With Fractional Power-Law Exponents. AIP Conference Proceedings, 2008, , .	0.3	0
142	The Cytoskeleton of the Living Cell as an Out-of-Equilibrium System. , 2008, , 111-141.		3
143	BaHigh-force magnetic tweezers with force feedback for biological applications. Review of Scientific Instruments, 2007, 78, 114301.	0.6	164
144	Airway Hyperresponsiveness, Remodeling, and Smooth Muscle Mass. American Journal of Respiratory Cell and Molecular Biology, 2007, 37, 264-272.	1.4	122

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145	Stress fluctuations and motion of cytoskeletal-bound markers. Physical Review E, 2007, 76, 011918.	0.8	89
146	Simple model of cytoskeletal fluctuations. Physical Review E, 2007, 76, 021925.	0.8	23
147	Airway smooth muscle dynamics: a common pathway of airway obstruction in asthma. European Respiratory Journal, 2007, 29, 834-860.	3.1	344
148	Cytoskeleton dynamics: Fluctuations within the network. Biochemical and Biophysical Research Communications, 2007, 355, 324-330.	1.0	90
149	Mechanotransduction, asthma and airway smooth muscle. Drug Discovery Today: Disease Models, 2007, 4, 131-137.	1.2	15
150	Do Biophysical Properties of the Airway Smooth Muscle in Culture Predict Airway Hyperresponsiveness?. American Journal of Respiratory Cell and Molecular Biology, 2006, 35, 55-64.	1.4	115
151	Cytoskeletal remodelling and slow dynamics in the living cell. Nature Materials, 2005, 4, 557-561.	13.3	434
152	Rat airway smooth muscle cell during actin modulation: rheology and glassy dynamics. American Journal of Physiology - Cell Physiology, 2005, 289, C1388-C1395.	2.1	69
153	Cytoskeletal mechanics in adherent human airway smooth muscle cells: probe specificity and scaling of protein-protein dynamics. American Journal of Physiology - Cell Physiology, 2004, 287, C643-C654.	2.1	85
154	On the terminology for describing the length-force relationship and its changes in airway smooth muscle. Journal of Applied Physiology, 2004, 97, 2029-2034.	1.2	81
155	Linearity and time-scale invariance of the creep function in living cells. Journal of the Royal Society Interface, 2004, 1, 91-97.	1.5	115
156	Rheology of airway smooth muscle cells is associated with cytoskeletal contractile stress. Journal of Applied Physiology, 2004, 96, 1600-1605.	1.2	128
157	Localized mechanical stress induces time-dependent actin cytoskeletal remodeling and stiffening in cultured airway smooth muscle cells. American Journal of Physiology - Cell Physiology, 2004, 287, C440-C448.	2.1	100
158	Role of heat shock protein 27 in cytoskeletal remodeling of the airway smooth muscle cell. Journal of Applied Physiology, 2004, 96, 1701-1713.	1.2	83
159	Fractional Derivatives Embody Essential Features of Cell Rheological Behavior. Annals of Biomedical Engineering, 2003, 31, 692-699.	1.3	157
160	Microrheology of Human Lung Epithelial Cells Measured by Atomic Force Microscopy. Biophysical Journal, 2003, 84, 2071-2079.	0.2	630
161	Remodeling of the airway smooth muscle cell: are we built of glass?. Respiratory Physiology and Neurobiology, 2003, 137, 109-124.	0.7	66
162	Time scale and other invariants of integrative mechanical behavior in living cells. Physical Review E, 2003, 68, 041914.	0.8	317

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163	Oscillatory magnetic tweezers based on ferromagnetic beads and simple coaxial coils. Review of Scientific Instruments, 2003, 74, 4012-4020.	0.6	28
164	Intracellular stress tomography reveals stress focusing and structural anisotropy in cytoskeleton of living cells. American Journal of Physiology - Cell Physiology, 2003, 285, C1082-C1090.	2.1	225
165	A finite element model of cell deformation during magnetic bead twisting. Journal of Applied Physiology, 2002, 93, 1429-1436.	1.2	185
166	Traction fields, moments, and strain energy that cells exert on their surroundings. American Journal of Physiology - Cell Physiology, 2002, 282, C595-C605.	2.1	886
167	Dynamic equilibration of airway smooth muscle contraction during physiological loading. Journal of Applied Physiology, 2002, 92, 771-779.	1.2	71
168	Scaling the Microrheology of Living Cells. Physical Review Letters, 2001, 87, 148102.	2.9	1,056
169	The cytoskeleton as a soft glassy material. , 2001, , 50-70.		7
170	Selected Contribution: Time course and heterogeneity of contractile responses in cultured human airway smooth muscle cells. Journal of Applied Physiology, 2001, 91, 986-994.	1.2	167
171	Twisting integrin receptors increases endothelin-1 gene expression in endothelial cells. American Journal of Physiology - Cell Physiology, 2001, 280, C1475-C1484.	2.1	178
172	Mechanical control of cyclic AMP signalling and gene transcription through integrins. Nature Cell Biology, 2000, 2, 666-668.	4.6	238
173	Mechanical properties of cultured human airway smooth muscle cells from 0.05 to 0.4 Hz. Journal of Applied Physiology, 2000, 89, 1619-1632.	1.2	146
174	Analysis of Cell Mechanics in Single Vinculin-Deficient Cells Using a Magnetic Tweezer. Biochemical and Biophysical Research Communications, 2000, 277, 93-99.	1.0	194
175	Role of ERK MAP kinases in responses of cultured human airway smooth muscle cells to IL-1Î². American Journal of Physiology - Lung Cellular and Molecular Physiology, 1999, 277, L943-L951.	1.3	39
176	Dynamic delay time compensation for sampling capillaries used in respiratory mass spectrometry. Technology and Health Care, 1999, 7, 243-259.	0.5	2
177	Additional inspiratory work of breathing imposed by tracheostomy tubes and non-ideal ventilator properties in critically ill patients. Intensive Care Medicine, 1999, 25, 514-519.	3.9	61
178	Implications of heterogeneous bead behavior on cell mechanical properties measured with magnetic twisting cytometry. Journal of Magnetism and Magnetic Materials, 1999, 194, 120-125.	1.0	77
179	Effects of mechanical unloading/loading on respiratory loop gain and periodic breathing in man. Respiration Physiology, 1998, 112, 23-36.	2.8	17
180	Delayed derecruitment after removal of PEEP in patients with acute lung injury. Acta Anaesthesiologica Scandinavica, 1997, 41, 675-684.	0.7	19

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181	Respiratory comfort of automatic tube compensation and inspiratory pressure support in conscious humans. Intensive Care Medicine, 1997, 23, 1119-1124.	3.9	88
182	Breathing pattern and additional work of breathing in spontaneously breathing patients with different ventilatory demands during inspiratory pressure support and automatic tube compensation. Intensive Care Medicine, 1997, 23, 545-552.	3.9	130
183	ComputerunterstÃ¼tztes rÃ¼ckgekoppeltes Beatmungssystem: Validierung eines neuen Beatmungsmodus fÃ¼r eine minimale Druckbelastung. Biomedizinische Technik, 1996, 41, 520-521.	0.9	0
184	Time constant/volume relationship of passive expiration in mechanically ventilated ARDS patients. European Respiratory Journal, 1995, 8, 114-120.	3.1	60
185	An Analysis of Desynchronization Between the Spontaneously Breathing Patient and Ventilator During Inspiratory Pressure Support. Chest, 1995, 107, 1387-1394.	0.4	141
186	Automatic compensation of endotracheal tube resistance in spontaneously breathing patients. Technology and Health Care, 1994, 1, 281-291.	0.5	85
187	Determination of volume-dependent respiratory system mechanics in mechanically ventilated patients using the new SLICE method. Technology and Health Care, 1994, 2, 175-191.	0.5	898
188	Continuous Calculation of Intratracheal Pressure in Tracheally Intubated Patients. Anesthesiology, 1993, 79, 503-513.	1.3	213