Measuring the elastic properties of biological samples w

IEEE Engineering in Medicine and Biology Magazine 16, 47-57

DOI: 10.1109/51.582176

Citation Report

#	Article	IF	CITATIONS
1	AFM IMAGING AND ELASTICITY MEASUREMENTS ON LIVING RAT LIVER MACROPHAGES. Cell Biology International, 1997, 21, 685-696.	1.4	191
2	USING ATOMIC FORCE MICROSCOPY TO INVESTIGATE PATCH-CLAMPED NUCLEAR MEMBRANE. Cell Biology International, 1997, 21, 747-757.	1.4	37
3	Measuring elasticity of biological materials by atomic force microscopy. FEBS Letters, 1998, 430, 12-16.	1.3	328
4	Preparation of basal cell membranes for scanning probe microscopy. FEBS Letters, 1998, 436, 179-184.	1.3	30
5	Imaging of the Surface of Living Cells by Low-Force Contact-Mode Atomic Force Microscopy. Biophysical Journal, 1998, 75, 695-703.	0.2	167
6	Deflection of a cell membrane under application of a local force. Physical Review E, 1998, 57, 2123-2128.	0.8	51
7	Analysis of Indentation: Implications for Measuring Mechanical Properties With Atomic Force Microscopy. Journal of Biomechanical Engineering, 1999, 121, 462-471.	0.6	227
8	Dimensional and mechanical dynamics of active and stable edges in motile fibroblasts investigated by using atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 921-926.	3.3	409
9	Atomic force microscopy imaging of living cells: progress, problems and prospects., 1999, 21, 1-17.		72
10	Elasticity of normal and cancerous human bladder cells studied by scanning force microscopy. European Biophysics Journal, 1999, 28, 312-316.	1.2	628
11	Analysis of the mechanical properties ofin vitro reconstructed epidermis: preliminary results. Medical and Biological Engineering and Computing, 1999, 37, 670-672.	1.6	6
12	Imaging and force-distance analysis of human fibroblasts in vitro by atomic force microscopy. , 1999, 36, 254-264.		55
13	Single molecule force spectrometer with magnetic force control and inductive detection. Review of Scientific Instruments, 1999, 70, 1313-1317.	0.6	28
14	Setup for observing living cells using a commercial atomic force microscope. Review of Scientific Instruments, 2000, 71, 4338.	0.6	9
15	Tapping Mode Atomic Force Microscopy allows the in situ Imaging of Fragile Membrane Structures and of Intact Cells Surface at High Resolution. Single Molecules, 2000, 1, 105-107.	1.7	16
16	Effect of streptolysin O on the microelasticity of human platelets analyzed by atomic force microscopy. Ultramicroscopy, 2000, 82, 259-267.	0.8	38
17	Atomic force microscopy analysis of wool fibre surfaces in air and under water. Micron, 2000, 31, 659-667.	1.1	33
18	Invited Review: Engineering approaches to cytoskeletal mechanics. Journal of Applied Physiology, 2000, 89, 2085-2090.	1.2	89

#	ARTICLE	IF	CITATIONS
19	Non-invasive quantitative reconstruction of tissue elasticity using an iterative forward approach. Physics in Medicine and Biology, 2000, 45, 1495-1509.	1.6	56
20	New technologies in scanning probe microscopy for studying molecular interactions in cells. Expert Reviews in Molecular Medicine, 2000, 2, 1-19.	1.6	19
21	Morphology and Transverse Stiffness of Drosophila Myofibrils Measured by Atomic Force Microscopy. Biophysical Journal, 2000, 78, 1490-1497.	0.2	60
22	Atomic Force and Total Internal Reflection Fluorescence Microscopy for the Study of Force Transmission in Endothelial Cells. Biophysical Journal, 2000, 78, 1725-1735.	0.2	269
23	Regional Structural and Viscoelastic Properties of Fibrocartilage upon Dynamic Nanoindentation of the Articular Condyle. Journal of Structural Biology, 2001, 136, 46-52.	1.3	99
24	The effect of chitosan on stiffness and glycolytic activity of human bladder cells. Biochimica Et Biophysica Acta - Molecular Cell Research, 2001, 1540, 127-136.	1.9	74
25	Long-Range Interaction Forces between Polymer-Supported Lipid Bilayer Membranes. Langmuir, 2001, 17, 4616-4626.	1.6	29
26	Dynamic AFM of Patch Clamped Membranes. , 2001, , 425-460.		0
27	Force spectroscopy on single passive biomolecules and single biomolecular bonds. Physics Reports, 2001, 346, 343-385.	10.3	120
28	Early detection of cytotoxic events between hepatic natural killer cells and colon carcinoma cells as probed with the atomic force microscope. Ultramicroscopy, 2001, 89, 265-273.	0.8	27
29	Endothelial, cardiac muscle and skeletal muscle exhibit different viscous and elastic properties as determined by atomic force microscopy. Journal of Biomechanics, 2001, 34, 1545-1553.	0.9	527
30	Direct, high-resolution measurement of furrow stiffening during division of adherent cells. Nature Cell Biology, 2001, 3, 607-610.	4.6	293
31	Biotechnological Applications of Atomic Force Microscopy. Methods in Cell Biology, 2002, 68, 171-191.	0.5	9
32	Interactions of poly(amino acids) in aqueous solution with charged model surfaces- analysis by colloidal probe., 2002, 4937, 274.		0
33	Potassium-Selective Atomic Force Microscopy on Ion-Releasing Substrates and Living Cells. Analytical Chemistry, 2002, 74, 4269-4274.	3.2	23
34	Extracellular Matrix- and Cytoskeleton-Dependent Changes in Cell Shape and Stiffness. Experimental Cell Research, 2002, 278, 92-100.	1.2	114
35	Introduction to Atomic Force Microscopy (AFM) in Biology. Current Protocols in Protein Science, 2002, 29, Unit 17.7.	2.8	8
36	The Atomic Force Microscope in the Study of Membrane Fusion and Exocytosis. Methods in Cell Biology, 2002, 68, 33-50.	0.5	19

#	Article	IF	CITATIONS
37	ANALYSIS OF LIGAND–RECEPTOR INTERACTIONS IN CELLS BY ATOMIC FORCE MICROSCOPY. Journal of Receptor and Signal Transduction Research, 2002, 22, 169-190.	1.3	47
38	Measuring the Elastic Properties of Living Cells by the Atomic Force Microscope. Methods in Cell Biology, 2002, 68, 67-90.	0.5	254
39	Determination of Cellular Strains by Combined Atomic Force Microscopy and Finite Element Modeling. Biophysical Journal, 2002, 83, 858-879.	0.2	135
40	Single Cell Mechanotransduction and Its Modulation Analyzed by Atomic Force Microscope Indentation. Biophysical Journal, 2002, 82, 2970-2981.	0.2	264
41	Cell Adhesion Measured by Force Spectroscopy on Living Cells. Methods in Cell Biology, 2002, 68, 91-114.	0.5	31
42	High-resolution three-dimensional imaging of the lateral plasma membrane of cochlear outer hair cells by atomic force microscopy. Journal of Comparative Neurology, 2002, 451, 62-69.	0.9	32
43	Microscope-based techniques to study cell adhesion and migration. Nature Cell Biology, 2002, 4, E91-E96.	4.6	67
44	Models of cytoskeletal mechanics of adherent cells. Biomechanics and Modeling in Mechanobiology, 2002, 1, 95-108.	1.4	136
45	Mechanical Asymmetry in the Embryonic Chick Heart During Looping. Annals of Biomedical Engineering, 2003, 31, 1327-1336.	1.3	75
46	Adhesively-Tensed Cell Membranes: Lysis Kinetics and Atomic Force Microscopy Probing. Biophysical Journal, 2003, 85, 2746-2759.	0.2	163
47	Imaging Surface and Submembranous Structures in Living Cells With the Atomic Force Microscope: Notes and Tricks., 2004, 242, 201-216.		5
48	Shape and Volume of Living Aldosterone-Sensitive Cells Imaged with the Atomic Force Microscope. , 2004, 242, 255-280.		26
49	Mechanical force response of single living cells using a microrobotic system. , 2004, , .		37
50	Nanophysical Properties of Living Cells. Bioelectric Engineering, 2004, , 69-97.	0.7	5
51	Scanning Probe Recognition Microscopy Investigation of the Elastic Properties of Tissue Scaffolding. Materials Research Society Symposia Proceedings, 2004, 838, 115.	0.1	2
52	In vitro assay of singlet oxygen generation in the presence of water-soluble derivatives of C60. Carbon, 2004, 42, 1195-1198.	5.4	48
53	Scanning Force Microscopy Based Rapid Force Curve Acquisition on Supported Lipid Bilayers: Experiments and Simulations Using Pulsed Force Mode. ChemPhysChem, 2004, 5, 989-997.	1.0	11
54	Hydrogel Microspheres:Â Influence of Chemical Composition on Surface Morphology, Local Elastic Properties, and Bulk Mechanical Characteristics. Langmuir, 2004, 20, 9968-9977.	1.6	38

#	Article	IF	Citations
55	Estimating the Sensitivity of Mechanosensitive Ion Channels to Membrane Strain and Tension. Biophysical Journal, 2004, 87, 2870-2884.	0.2	73
56	Mechanical properties of sensory and supporting cells in the organ of Corti of the guinea pig cochlea $\hat{a}\in$ study by atomic force microscopy. Hearing Research, 2004, 192, 57-64.	0.9	21
57	Substrate Compliance versus Ligand Density in Cell on Gel Responses. Biophysical Journal, 2004, 86, 617-628.	0.2	1,005
58	Dynamic Elastic Modulus of Porcine Articular Cartilage Determined at Two Different Levels of Tissue Organization by Indentation-Type Atomic Force Microscopy. Biophysical Journal, 2004, 86, 3269-3283.	0.2	424
59	Scanning probe microscopy – applications for the study of soft materials. , 2005, , 161-213.		2
60	Influence of myosin II activity on stiffness of fibroblast cells. Acta Biomaterialia, 2005, 1, 273-280.	4.1	53
61	Within the cell: analytical techniques for subcellular analysis. Analytical and Bioanalytical Chemistry, 2005, 382, 906-917.	1.9	29
62	Osteoblast Elastic Modulus Measured by Atomic Force Microscopy Is Substrate Dependent. Annals of Biomedical Engineering, 2005, 33, 963-971.	1.3	138
63	Identifying and Mapping Surface Amorphous Domains. Pharmaceutical Research, 2005, 22, 1195-1202.	1.7	65
64	Singlet oxygen (1î"g)-mediated oxidation of cellular and subcellular components: ESR and AFM assays. Journal of Physics Condensed Matter, 2005, 17, S1471-S1482.	0.7	17
65	Viscoelasticity of entangled actin networks studied by long-pulse magnetic bead microrheometry. Physical Review E, 2005, 72, 061916.	0.8	17
66	Nanoscale Mechanical Properties — Measuring Techniques and Applications. , 2005, , 535-573.		0
67	Dynamic Responses of an Atomic Force Microscope Interacting with Samples. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2005, 127, 705-709.	0.9	6
68	Nanoscale Operation of a Living Cell Using an Atomic Force Microscope with a Nanoneedle. Nano Letters, 2005, 5, 27-30.	4.5	321
69	Self-Assembled Peptide Nanotubes Are Uniquely Rigid Bioinspired Supramolecular Structures. Nano Letters, 2005, 5, 1343-1346.	4.5	392
70	Evidence for a Highly Elastic Shell-Core Organization of Cochlear Outer Hair Cells by Local Membrane Indentation. Biophysical Journal, 2005, 88, 2982-2993.	0.2	23
71	Histamine Effects on Endothelial Cell Fibronectin Interaction Studied by Atomic Force Microscopy. Biophysical Journal, 2005, 89, 2888-2898.	0.2	69
72	Human epithelial cells increase their rigidity with ageingin vitro: direct measurements. Physics in Medicine and Biology, 2005, 50, 81-92.	1.6	178

#	Article	IF	CITATIONS
73	AFM: a versatile tool in biophysics. Measurement Science and Technology, 2005, 16, R65-R92.	1.4	343
74	Modeling Soft Contact Mechanism of Biological Cells Using an Atomic Force Bio-Microscope. , 2006, , .		8
75	Towards a non-destructive in vitro biomechanical characterization. , 2006, , .		2
76	Elastic Properties Exploration of In Vitro Cultured Microscopic Cells based on Haptic Sensing. , 2006, , .		O
77	Fabrication and characterization of thermally actuated bimorph probe for living cell measurements with experimental and numerical analysis. Journal of Mechanical Science and Technology, 2006, 20, 297-309.	0.7	1
78	Mechanical properties of single living cells encapsulated in polyelectrolyte matrixes. Journal of Biotechnology, 2006, 124, 723-731.	1.9	80
79	Mechanical Properties of Murine Leukemia Virus Particles: Effect of Maturation. Biophysical Journal, 2006, 91, 767-774.	0.2	126
80	Mechanical Properties of Pore-Spanning Lipid Bilayers Probed by Atomic Force Microscopy. Biophysical Journal, 2006, 91, 217-226.	0.2	116
81	Probing surfaces with single-polymer atomic force microscope experiments. Biointerphases, 2006, 1, MR1-MR21.	0.6	24
82	Elasticity and adhesion of resting and lipopolysaccharide-stimulated macrophages. FEBS Letters, 2006, 580, 450-454.	1.3	56
83	Integrated Confocal and Scanning Probe Microscopy for Biomedical Research. Scientific World Journal, The, 2006, 6, 1609-1618.	0.8	51
84	Enhanced Near-Field Force Probing for In Vitro Biomechanical Characterization. , 0, , .		1
85	Cellular transfer and AFM imaging of cancer cells using Bioimprint. Journal of Nanobiotechnology, 2006, 4, 1.	4.2	44
86	Recovery of elasticity of aged human epithelial cells in vitro. Nanomedicine: Nanotechnology, Biology, and Medicine, 2006, 2, 31-36.	1.7	80
87	Measuring cell surface elasticity on enteroaggregative Escherichia coli wild type and dispersin mutant by AFM. Ultramicroscopy, 2006, 106, 695-702.	0.8	44
88	Nanotechnology for Cell–Substrate Interactions. Annals of Biomedical Engineering, 2006, 34, 59-74.	1.3	296
89	Strategies and results of atomic force microscopy in the study of cellular adhesion. Micron, 2006, 37, 1-13.	1.1	66
90	The Force Sensing Bio-Microscope: An Efficient Tool for Cells Mechanotransduction Studies. , 2006, 2006, 3411-4.		0

#	Article	IF	Citations
91	Quantitative Nanomechanical Measurements in Biology. Nanoscience and Technology, 2006, , 205-239.	1.5	1
92	A nanoscanning platform for bio-engineering: an in-plane probe with switchable stiffness. Nanotechnology, 2006, 17, S69-S76.	1.3	13
93	An Hybrid Micro-Force Sensing Device for Mechanical Cell Characterization. , 2006, , .		6
94	Voltage-dependent capacitance of human embryonic kidney cells. Physical Review E, 2006, 73, 041930.	0.8	35
95	Haptic Rendering of Biological Elastic Properties based on Biomechanical Characterization., 2006,,.		0
96	A HYBRID MODEL FOR TUMOR SPHEROID GROWTH <i>IN VITRO </i> I: THEORETICAL DEVELOPMENT AND EARLY RESULTS. Mathematical Models and Methods in Applied Sciences, 2007, 17, 1773-1798.	1.7	152
97	A new image correction method for live cell atomic force microscopy. Physics in Medicine and Biology, 2007, 52, 2185-2196.	1.6	17
98	Iterative Control Approach to Compensate for Both the Hysteresis and the Dynamics Effects of Piezo Actuators. IEEE Transactions on Control Systems Technology, 2007, 15, 936-944.	3.2	197
99	Robust-inversion-based 2DOF-control design for output tracking: Piezoelectric actuator example. , 2007, , .		11
100	Robust Strategies for Automated AFM Force Curve Analysis—I. Non-adhesive Indentation of Soft, Inhomogeneous Materials. Journal of Biomechanical Engineering, 2007, 129, 430-440.	0.6	258
101	New technologies for dissecting the arteriolar myogenic response. Trends in Pharmacological Sciences, 2007, 28, 308-315.	4.0	28
102	AFM combines functional and morphological analysis of peripheral myelinated and demyelinated nerve fibers. Neurolmage, 2007, 37, 1218-1226.	2.1	37
103	Microtissue Elasticity: Measurements by Atomic Force Microscopy and Its Influence on Cell Differentiation. Methods in Cell Biology, 2007, 83, 521-545.	0.5	158
104	Cellular chemomechanics at interfaces: sensing, integration and response. Soft Matter, 2007, 3, 307.	1.2	114
105	Cellular biomechanics. , 0, , 18-118.		1
106	Mechanical properties of micro- and nanocapsules: Single-capsule measurements. Polymer, 2007, 48, 7221-7235.	1.8	234
107	Nanomechanical analysis of cells from cancer patients. Nature Nanotechnology, 2007, 2, 780-783.	15.6	1,650
108	Scanning probe microscopy in the field of drug delivery. Advanced Drug Delivery Reviews, 2007, 59, 1453-1473.	6.6	44

#	Article	IF	CITATIONS
109	Assessing Micromechanical Properties of Cells with Atomic Force Microscopy: Importance of the Contact Point. Biomechanics and Modeling in Mechanobiology, 2007, 6, 199-210.	1.4	109
110	Flow and High Affinity Binding Affect the Elastic Modulus of the Nucleus, Cell Body and the Stress Fibers of Endothelial Cells. Annals of Biomedical Engineering, 2007, 35, 1120-1130.	1.3	23
111	Nanomechanical properties of individual chondrocytes and their developing growth factor-stimulated pericellular matrix. Journal of Biomechanics, 2007, 40, 1011-1023.	0.9	83
112	Vacuolar structures can be identified by AFM elasticity mapping. Ultramicroscopy, 2007, 107, 895-901.	0.8	36
113	Immunological identification of fibrinogen in dual-component protein films by AFM imaging. Micron, 2008, 39, 832-842.	1.1	21
114	Size Distribution and Molecular Associations of Plasma Fibronectin and Fibronectin Crosslinked by TransglutaminaseÂ2. Protein Journal, 2008, 27, 223-233.	0.7	47
115	AFM-based identification of the dynamic properties of globular proteins: simulation study. Journal of Mechanical Science and Technology, 2008, 22, 2203-2212.	0.7	6
116	Quantitative mechanical evaluation and analysis of <i>Drosophila</i> embryos through the stages of embryogenesis. Birth Defects Research Part C: Embryo Today Reviews, 2008, 84, 204-214.	3.6	4
117	Sensing surfaces: Challenges in studying the cell adhesion process and the cell adhesion forces on biomaterials. Irbm, 2008, 29, 77-88.	3.7	37
118	Investigation of nano-mechanical properties of annulus fibrosus using atomic force microscopy. Micron, 2008, 39, 1008-1019.	1.1	26
119	A Microforce and Nanoforce Biomicroscope Device for <i>In Vitro</i> Investigation. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 2532-2541.	2.4	5
120	Providing Unique Insight into Cell Biology via Atomic Force Microscopy. International Review of Cytology, 2008, 265, 227-252.	6.2	30
121	Translocation of Aquaporin-Containing Vesicles to the Plasma Membrane Is Facilitated by Actomyosin Relaxation. Biophysical Journal, 2008, 94, 671-678.	0.2	17
122	Elastic Membrane Heterogeneity of Living Cells Revealed by Stiff Nanoscale Membrane Domains. Biophysical Journal, 2008, 94, 1521-1532.	0.2	83
123	Mechanical Properties of Actin Stress Fibers in Living Cells. Biophysical Journal, 2008, 95, 6060-6071.	0.2	142
124	Measurement of elastic properties of prostate cancer cells using AFM. Analyst, The, 2008, 133, 1498.	1.7	247
125	Atomic force microscopy probing for biomechanical characterization of living cells. , 2008, , .		2
126	A Robotic Platform for Targeted Studies on Biological Cells. , 2008, , .		0

#	ARTICLE	IF	CITATIONS
127	Measuring the Time-Dependent Functional Activity of Adsorbed Fibrinogen by Atomic Force Microscopy. Langmuir, 2008, 24, 8801-8806.	1.6	26
128	Quantitative biomechanical analysis of Drosophila embryos through the stages of embryogenesis using a sensorized human/robot cooperative interface. , 2008, , .		0
129	Mechanical characterization of fixed undifferentiated and differentiating mESC., 2008,,.		6
130	Micro- and Nanoscale Force Techniques for Mechanotransduction. , 0, , 377-402.		O
131	Nanoscale Analysis of Pharmaceuticals by Scanning Probe Microscopy. , 2009, , 173-194.		1
132	Formation of Nanoscale Bioimprints of Muscle Cells Using UV-Cured Spin-Coated Polymers. Journal of Nanotechnology, 2009, 2009, 1-6.	1.5	6
133	Animal cell hydraulics. Journal of Cell Science, 2009, 122, 3233-3241.	1.2	86
134	Inverse finite element analysis of indentation tests to determine hyperelastic parameters of soft-tissue layers. Journal of Strain Analysis for Engineering Design, 2009, 44, 347-362.	1.0	12
135	An Iterative-Based Feedforward-Feedback Control Approach to High-Speed Atomic Force Microscope Imaging. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2009, 131, .	0.9	20
136	Microfabrication of colloidal scanning probes with controllable tip radii of curvature. Journal of Micromechanics and Microengineering, 2009, 19, 105021.	1.5	7
137	Investigation of penetration force of living cell using an atomic force microscope. Journal of Mechanical Science and Technology, 2009, 23, 1932-1938.	0.7	24
138	Elasticity Mapping of Poreâ€Suspending Native Cell Membranes. Small, 2009, 5, 832-838.	5.2	25
139	Reconstruction of a hidden topography by single AFM force–distance curves. Surface Science, 2009, 603, 2363-2369.	0.8	11
140	Characterization of cellular mechanical behavior at the microscale level by a hybrid force sensing device. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 297-304.	1.5	13
141	Mechanical role of the nucleus in a cell in terms of elastic modulus. Current Applied Physics, 2009, 9, e291-e293.	1.1	25
142	Comparative atomic force and scanning electron microscopy: An investigation of structural differentiation of hepatic stellate cells. Journal of Structural Biology, 2009, 167, 200-208.	1.3	14
143	Robust Inversion-Based 2-DOF Control Design for Output Tracking: Piezoelectric-Actuator Example. IEEE Transactions on Control Systems Technology, 2009, 17, 1069-1082.	3.2	82
144	Feedforward control of piezoactuators in atomic force microscope systems. IEEE Control Systems, 2009, 29, 70-82.	1.0	237

#	ARTICLE	IF	CITATIONS
145	An atomic force microscope nanoscalpel for nanolithography and biological applications. Nanotechnology, 2009, 20, 445302.	1.3	17
146	Introduction to Atomic Force Microscopy (AFM) in Biology. Current Protocols in Protein Science, 2009, 58, Unit 17.7.1-19.	2.8	25
147	Micro/Nanoengineering and AFM for Cellular Sensing. , 2009, , 195-224.		0
148	Application of Atomic Force Microscopy to Investigate Axonal Growth of PC-12 Neuron-like Cells. IFMBE Proceedings, 2009, , 1833-1837.	0.2	2
149	Biomechanics of the CNS., 2009, , 173-213.		6
150	Biomedical applications of AFM. Journal of Physics: Conference Series, 2009, 146, 012023.	0.3	13
151	Can common adhesion molecules and microtopography affect cellular elasticity? A combined atomic force microscopy and optical study. Medical and Biological Engineering and Computing, 2010, 48, 1043-1053.	1.6	27
152	Stiffness of the substrate influences the phenotype of embryonic chicken cardiac myocytes. Journal of Biomedical Materials Research - Part A, 2010, 95A, 1261-1269.	2.1	95
153	Dynamic mechanical properties of the tissue-engineered matrix associated with individual chondrocytes. Journal of Biomechanics, 2010, 43, 469-476.	0.9	40
154	Neuronal elasticity as measured by atomic force microscopy. Journal of Neuroscience Methods, 2010, 186, 35-41.	1.3	29
155	Replication of cancer cells using soft lithography bioimprint technique. Microelectronic Engineering, 2010, 87, 699-703.	1.1	13
156	Structure–property relationships of a biopolymer network: The eggshell membrane. Acta Biomaterialia, 2010, 6, 3687-3693.	4.1	70
157	Atomic force microscopy of biological samples. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2010, 2, 618-634.	3.3	160
158	Modulation of Microvascular Smooth Muscle Adhesion and Mechanotransduction by Integrin-Linked Kinase. Microcirculation, 2010, 17, 113-127.	1.0	10
159	AFM and fluorescence imaging of nanomechanical response in periodontal ligament cells. Frontiers in Bioscience - Elite, 2010, E2, 1028-1041.	0.9	4
160	Structural and Mechanical Mechanisms of Ocular Tissues Probed by AFM. Nanoscience and Technology, 2010, , 363-393.	1.5	1
161	Detection of Populations of Amyloid-Like Protofibrils with Different Physical Properties. Biophysical Journal, 2010, 98, 1277-1284.	0.2	47
162	Microgels with an Interpenetrating Network Structure as a Model System for Cell Studies. Macromolecules, 2010, 43, 7277-7281.	2.2	32

#	Article	IF	CITATIONS
163	Utilising atomic force microscopy for the characterisation of nanoscale drug delivery systems. European Journal of Pharmaceutics and Biopharmaceutics, 2010, 74, 2-13.	2.0	152
164	Tuning the mechanical properties of silica microcapsules. Physical Chemistry Chemical Physics, 2010, 12, 15392.	1.3	47
165	Microarray-facilitated mechanical characterization of breast tissue pathology samples using contact-mode Atomic Force Microscopy (AFM). , 2010, , .		12
166	Atomic Force Microscope-Enabled Studies of Integrin–Extracellular Matrix Interactions in Vascular Smooth Muscle and Endothelial Cells. Methods in Molecular Biology, 2011, 736, 411-424.	0.4	3
167	Nanomechanics of the Cartilage Extracellular Matrix. Annual Review of Materials Research, 2011, 41, 133-168.	4.3	159
168	A new integrated system combining atomic force microscopy and micro-electrode array for measuring the mechanical properties of living cardiac myocytes. Biomedical Microdevices, 2011, 13, 613-621.	1.4	31
169	Focal Adhesion Induction at the Tip of a Functionalized Nanoelectrode. Cellular and Molecular Bioengineering, 2011, 4, 616-626.	1.0	11
170	Characterization of cellular elastic modulus using structure based double layer model. Medical and Biological Engineering and Computing, 2011, 49, 453-462.	1.6	16
171	Biological AFM: where we come from $\hat{a}\in$ " where we are $\hat{a}\in$ " where we may go. Journal of Molecular Recognition, 2011, 24, 406-413.	1.1	90
172	The viscoelastic, hyperelastic and scale dependent behaviour of freshly excised individual skin layers. Biomaterials, 2011, 32, 4670-4681.	5.7	130
173	Sickle cell trait human erythrocytes are significantly stiffer than normal. Journal of Biomechanics, 2011, 44, 657-661.	0.9	114
174	Indentation measurements of the subendothelial matrix in bovine carotid arteries. Journal of Biomechanics, 2011, 44, 815-821.	0.9	89
175	Elastohydrodynamics induced by a rapidly moving microscopic body. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 2852-2873.	1.0	4
176	Microelasticity of red blood cells in sickle cell disease. Journal of Strain Analysis for Engineering Design, 2011, 46, 368-379.	1.0	50
177	Cell characterization using high frequency ultrasound., 2011,,.		0
178	AFM stiffness nanotomography of normal, metaplastic and dysplastic human esophageal cells. Physical Biology, 2011, 8, 015007.	0.8	135
179	Mechanobiology of Platelets: Techniques to Study the Role of Fluid Flow and Platelet Retraction Forces at the Micro- and Nano-Scale. International Journal of Molecular Sciences, 2011, 12, 9009-9030.	1.8	28
180	Hyperoxia alters the mechanical properties of alveolar epithelial cells. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2012, 302, L1235-L1241.	1.3	34

#	Article	IF	CITATIONS
181	Characterization of Fiber-Forming Peptides and Proteins by Means of Atomic Force Microscopy. Current Protein and Peptide Science, 2012, 13, 232-257.	0.7	11
182	Two barriers for sodium in vascular endothelium?. Annals of Medicine, 2012, 44, S143-S148.	1.5	43
183	Auto nanomanipulation system for single cell mechanical property characterization inside an environmental SEM. , 2012, , .		5
184	Spatial-temporal control of dual-stage nanpositioners. , 2012, , .		0
185	A resonant structure designed for probing the elastic properties of suspension and adherent cells in liquid environments. Journal of Micromechanics and Microengineering, 2012, 22, 115033.	1.5	2
186	Effect of Substrate Elasticity on In Vitro Aging of Human Mesenchymal Stem Cells. Materials Research Society Symposia Proceedings, 2012, 1498, 39-45.	0.1	0
187	Nano needle with buffering beam for single cell stiffness measurement by nanorobotic manipulators inside ESEM. , $2012,  ,  .$		2
188	A rate-jump method for characterization of soft tissues using nanoindentation techniques. Soft Matter, 2012, 8, 5974.	1.2	31
189	Thickness-corrected model for nanoindentation of thin films with conical indenters. Soft Matter, 2012, 8, 4441.	1.2	40
190	Measurement of the elastic modulus of polymeric films using an AFM with a steel micro-spherical probe tip. Polymer Testing, 2012, 31, 926-930.	2.3	33
191	Combining atomic force-fluorescence microscopy with a stretching device for analyzing mechanotransduction processes in living cells. Analyst, The, 2012, 137, 5208.	1.7	27
192	Polymer Nanomechanics. , 2012, , 377-404.		1
193	Toxicity effects of short term diesel exhaust particles exposure to human small airway epithelial cells (SAECs) and human lung carcinoma epithelial cells (A549). Toxicology Letters, 2012, 215, 181-192.	0.4	22
194	AFM imaging of fenestrated liver sinusoidal endothelial cells. Micron, 2012, 43, 1252-1258.	1.1	26
195	Measuring the elastic properties of living cells through the analysis of current–displacement curves in scanning ion conductance microscopy. Pflugers Archiv European Journal of Physiology, 2012, 464, 307-316.	1.3	25
196	Dynamic Mechanical Response of Epithelial Cells to Epidermal Growth Factor. , 2012, , .		2
197	Theoretical study of the frequency shift in bimodal FM-AFM by fractional calculus. Beilstein Journal of Nanotechnology, 2012, 3, 198-206.	1.5	37
198	Measurement Techniques for Red Blood Cell Deformability: Recent Advances., 2012,,.		29

#	Article	IF	CITATIONS
199	Stiffness tomography exploration of living and fixed macrophages. Journal of Molecular Recognition, 2012, 25, 241-246.	1.1	33
200	Dual-stage repetitive control with Prandtl–Ishlinskii hysteresis inversion for piezo-based nanopositioning. Mechatronics, 2012, 22, 271-281.	2.0	46
201	Characterization of mechanical behavior of an epithelial monolayer in response to epidermal growth factor stimulation. Experimental Cell Research, 2012, 318, 521-526.	1.2	27
202	Nanomechanics measurements of live bacteria reveal a mechanism for bacterial cell protection: the polysaccharide capsule in Klebsiella is a responsive polymer hydrogel that adapts to osmotic stress. Soft Matter, 2013, 9, 7560.	1.2	40
203	The Effect of the Endothelial Cell Cortex on Atomic Force Microscopy Measurements. Biophysical Journal, 2013, 105, 300-309.	0.2	146
204	Non-invasive detection of biomechanical and biochemical responses of human lung cells to short time chemotherapy exposure using AFM and confocal Raman spectroscopy. Analytical Methods, 2013, 5, 874.	1.3	33
205	Comparative study on the differential mechanical properties of human liver cancer and normal cells. Animal Cells and Systems, 2013, 17, 170-178.	0.8	10
206	Design and Control for High-Speed Nanopositioning: Serial-Kinematic Nanopositioners and Repetitive Control for Nanofabrication. IEEE Control Systems, 2013, 33, 86-105.	1.0	55
207	Coalition transportation of cells with optical tweezers. , 2013, , .		0
208	Measuring the Mechanical Properties of Living Cells Using Atomic Force Microscopy. Journal of Visualized Experiments, 2013, , .	0.2	108
209	Spatiotemporal Mechanical Variation Reveals Critical Role for Rho Kinase During Primitive Streak Morphogenesis. Annals of Biomedical Engineering, 2013, 41, 421-432.	1.3	8
210	Membrane tension homeostasis of epithelial cells through surface area regulation in response to osmotic stress. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 712-722.	1.9	89
211	Comparison of the viscoelastic properties of cells from different kidney cancer phenotypes measured with atomic force microscopy. Nanotechnology, 2013, 24, 055102.	1.3	176
212	Mechanical Tomography of Human Corneocytes with a Nanoneedle. Journal of Investigative Dermatology, 2013, 133, 1565-1571.	0.3	28
213	Method for quantitative measurements of the elastic modulus of biological cells in AFM indentation experiments. Methods, 2013, 60, 202-213.	1.9	145
214	Atomic force microscopy of 3T3 and SW-13 cell lines: An investigation of cell elasticity changes due to fixation. Materials Science and Engineering C, 2013, 33, 3303-3308.	3.8	30
215	Stiffness-modulated motion of soft microscopic particles over active adhesive cilia. Soft Matter, 2013, 9, 3945.	1.2	12
216	Atomic Force Microscopy as a Tool for the Investigation of Living Cells. Medicina (Lithuania), 2013, 49, 25.	0.8	16

#	Article	IF	CITATIONS
217	Morphology and Nanomechanics of Sensory Neurons Growth Cones following Peripheral Nerve Injury. PLoS ONE, 2013, 8, e56286.	1.1	27
218	Robust and artifact-free mounting of tissue samples for atomic force microscopy. BioTechniques, 2014, 56, 40-42.	0.8	27
219	Separation of blood cells with differing deformability using deterministic lateral displacement <sup></sup> . Interface Focus, 2014, 4, 20140011.	1.5	99
220	Robot-aided optical manipulation of cells with a unified controller. , 2014, , .		0
221	Macrophage adhesion on fibronectin evokes an increase in the elastic property of the cell membrane and cytoskeleton: an atomic force microscopy study. European Biophysics Journal, 2014, 43, 573-579.	1.2	24
222	Micromorphology and microrheology of modified bitumen by atomic force microscopy. Road Materials and Pavement Design, 2014, 15, 300-311.	2.0	17
223	Resonant Controller Design for a Piezoelectric Tube Scanner: A Mixed Negative-Imaginary and Small-Gain Approach. IEEE Transactions on Control Systems Technology, 2014, 22, 1899-1906.	3.2	59
224	Spiral Scanning With Improved Control for Faster Imaging of AFM. IEEE Nanotechnology Magazine, 2014, 13, 541-550.	1.1	63
225	Mechanical Cues Direct Focal Adhesion Dynamics. Progress in Molecular Biology and Translational Science, 2014, 126, 103-134.	0.9	19
226	Physical characterization of the liquid adhesive from orb-weaving spiders. Materials Science and Engineering C, 2014, 34, 341-344.	3.8	13
227	Digital rectal examination in a simulated environment using sweeping palpation and mechanical localization. International Journal of Precision Engineering and Manufacturing, 2014, 15, 169-175.	1.1	6
228	Age-Related Changes in the Mechanical Properties of Human Fibroblasts and Its Prospective Reversal After Anti-Wrinkle Tripeptide Treatment. International Journal of Peptide Research and Therapeutics, 2014, 20, 77-85.	0.9	32
229	Correlating elastic properties and molecular organization of an ionic organic nanostructure. Nanoscale, 2014, 6, 316-327.	2.8	45
230	Aging of asphaltic binders investigated with atomic force microscopy. Fuel, 2014, 117, 15-25.	3.4	102
231	Probing the stiffness of isolated nucleoli by atomic force microscopy. Histochemistry and Cell Biology, 2014, 141, 365-381.	0.8	23
232	Quantitative acoustic contrast tomography reveals unique multiscale physical fluctuations during aflatoxin synthesis in Aspergillus parasiticus. Fungal Genetics and Biology, 2014, 73, 61-68.	0.9	8
233	Finite element models and molecular dynamic simulations for studying the response of mast cell under mechanical activation. Science Bulletin, 2014, 59, 3562-3572.	1.7	0
234	Combining AFM and Acoustic Probes to Reveal Changes in the Elastic Stiffness Tensor of Living Cells. Biophysical Journal, 2014, 107, 1502-1512.	0.2	40

#	Article	IF	CITATIONS
235	<i>In situ</i> probing the interior of single bacterial cells at nanometer scale. Nanotechnology, 2014, 25, 415101.	1.3	8
236	Atomic force microscopy determination of Young׳s modulus of bovine extra-ocular tendon fiber bundles. Journal of Biomechanics, 2014, 47, 1899-1903.	0.9	22
237	Automated AFM force curve analysis for determining elastic modulus of biomaterials and biological samples. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 37, 209-218.	1.5	54
238	Study of the plasticizer effect of single yeast cell by nanorobotic manipulation system. , 2014, , .		0
239	Nanomechanical properties of the sea-water bacteriumParacoccus seriniphilusâ€"A scanning force microscopy approach. Biointerphases, 2015, 10, 019004.	0.6	4
241	Nanomechanics of Cells and Biomaterials Studied by Atomic Force Microscopy. Advanced Healthcare Materials, 2015, 4, 2456-2474.	3.9	38
242	Role of Capsular Polysaccharides in Biofilm Formation: An AFM Nanomechanics Study. ACS Applied Materials & Study. Interfaces, 2015, 7, 13007-13013.	4.0	58
243	Changes in red blood cell membrane structure in G6PD deficiency: An atomic force microscopy study. Clinica Chimica Acta, 2015, 444, 264-270.	0.5	18
244	Nano-mechanical model of endothelial dysfunction for AFM-based diagnostics at the cellular level. Pharmacological Reports, 2015, 67, 728-735.	1.5	25
245	On-chip measurement of cellular mechanical properties using moiré fringe. , 2015, , .		3
246	Ferroelectricity and Ferroic Like Signature in Biological Species: â€~Bio-Multiferroics'—An Overview. Integrated Ferroelectrics, 2015, 166, 74-98.	0.3	3
247	Mechanically Stimulated Contraction of Engineered Cardiac Constructs Using a Microcantilever. IEEE Transactions on Biomedical Engineering, 2015, 62, 438-442.	2.5	22
248	Dietary supplementation with docosahexanoic acid (DHA) increases red blood cell membrane flexibility in mice with sickle cell disease. Blood Cells, Molecules, and Diseases, 2015, 54, 183-188.	0.6	23
249	Elastic Properties of the Annular Ligament of the Human Stapes—AFM Measurement. JARO - Journal of the Association for Research in Otolaryngology, 2015, 16, 433-446.	0.9	18
250	Direct measurement of photo-induced nanoscale surface displacement in solids using atomic force microscopy. Optical Materials, 2015, 48, 71-74.	1.7	4
251	Biomechanical assessment in models of glaucomatous optic neuropathy. Experimental Eye Research, 2015, 141, 125-138.	1.2	27
252	Numerical computation of the elastic and mechanical properties of red blood cell membrane using the higher-order Cauchy–Born rule. Applied Mathematics and Computation, 2015, 268, 334-353.	1.4	15
253	Bridging structure and mechanics of three-dimensional porous hydrogel with X-ray ultramicroscopy and atomic force microscopy. RSC Advances, 2015, 5, 63909-63916.	1.7	8

#	Article	IF	CITATIONS
254	Age-related vascular stiffening: causes and consequences. Frontiers in Genetics, 2015, 06, 112.	1.1	273
255	Dynamics of the nanoneedle probe in trolling mode AFM. Nanotechnology, 2015, 26, 205702.	1.3	18
256	Atomic Force Microscopy Reveals the Mechanobiology of Lytic Peptide Action on Bacteria. Langmuir, 2015, 31, 6164-6171.	1.6	48
257	Investigating cell mechanics with atomic force microscopy. Journal of the Royal Society Interface, 2015, 12, 20140970.	1.5	288
258	Design of a robust unified controller for cell manipulation with a robot-aided optical tweezers system. Automatica, 2015, 55, 279-286.	3.0	44
259	Correlation between in vitro expansion-related cell stiffening and differentiation potential of human mesenchymal stem cells. Differentiation, 2015, 90, 1-15.	1.0	11
260	Micropatterned Azopolymer Surfaces Modulate Cell Mechanics and Cytoskeleton Structure. ACS Applied Materials & Samp; Interfaces, 2015, 7, 21503-21510.	4.0	25
261	A Review of Automated Microinjection Systems for Single Cells in the Embryogenesis Stage. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2391-2404.	3.7	78
262	Passive microrheology of normal and cancer cells after ML7 treatment by atomic force microscopy. AIP Conference Proceedings, 2016, , .	0.3	8
263	Multiscale Meshfree Analysis of the Effects of Thermal Treatments on Deformability of Red Blood Cell Membrane. , 2016, , .		4
264	Numerical modeling of biomechanical responses of healthy red blood cell membrane under various loading conditions using a 3D quasicontinuum approach., 2016,,.		3
265	Microrheology of growing <i>Escherichia coli</i> biofilms investigated by using magnetic force modulation atomic force microscopy. Biointerphases, 2016, 11, 041005.	0.6	5
266	Introduction to Atomic Force Microscopy (AFM) in Biology. Current Protocols in Protein Science, 2016, 85, 17.7.1-17.7.21.	2.8	7
267	Load Rate and Temperature Dependent Mechanical Properties of the Cortical Neuron and Its Pericellular Layer Measured by Atomic Force Microscopy. Langmuir, 2016, 32, 1111-1119.	1.6	31
268	AFM-based force spectroscopy for bioimaging and biosensing. RSC Advances, 2016, 6, 12893-12912.	1.7	56
269	Atomic force microscopy of bacteria reveals the mechanobiology of pore forming peptide action. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1091-1098.	1.4	42
270	3D nanomechanical evaluations of dermal structures in skin. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 57, 14-23.	1.5	27
271	A Validation Study of the Repeatability and Accuracy of Atomic Force Microscopy Indentation Using Polyacrylamide Gels and Colloidal Probes. Journal of Biomechanical Engineering, 2017, 139, .	0.6	7

#	ARTICLE	IF	CITATIONS
272	Atomic Force Microscopy Studies of the Interaction of Antimicrobial Peptides with Bacterial Cells. Australian Journal of Chemistry, 2017, 70, 130.	0.5	2
273	Decorating fiber nanotip with single perovskite quantum dot and other luminescent nanocrystals synthesized in oil-phase. Nanotechnology, 2017, 28, 46LT02.	1.3	1
274	Atomistic–continuum model for probing the biomechanical properties of human erythrocyte membrane under extreme conditions. Computer Methods in Applied Mechanics and Engineering, 2017, 325, 22-36.	3.4	10
275	AFM-based detection of glycocalyx degradation and endothelial stiffening in the db/db mouse model of diabetes. Scientific Reports, 2017, 7, 15951.	1.6	44
276	Mask-free fabrication of a versatile microwell chip for multidimensional cellular analysis and drug screening. Lab on A Chip, 2017, 17, 4243-4252.	3.1	30
277	Dynamic modeling of trolling-mode AFM: Considering effects of cantilever torsion, nanoneedle flexibility and liquid-nanoneedle interactions. Ultramicroscopy, 2017, 182, 99-111.	0.8	17
278	A nanomechanical study of the effects of colistin on the Klebsiella pneumoniae AJ218 capsule. European Biophysics Journal, 2017, 46, 351-361.	1.2	12
279	Elastic properties of hydrogels and decellularized tissue sections used in mechanobiology studies probed by atomic force microscopy. Microscopy Research and Technique, 2017, 80, 85-96.	1.2	26
280	Comparison of viscoelastic properties of cancer and normal thyroid cells on different stiffness substrates. European Biophysics Journal, 2017, 46, 309-324.	1.2	85
281	Interaction of cationic antimicrobial peptides from Australian frogs with lipid membranes. Peptide Science, 2018, 110, e24061.	1.0	16
282	The Use of Photo-Activatable Materials for the Study of Cell Biomechanics and Mechanobiology. , 2018, , 101-129.		1
283	Mechanics and statistics of the worm-like chain. American Journal of Physics, 2018, 86, 86-94.	0.3	31
284	Mechanical and migratory properties of normal, scar, and Dupuytren's fibroblasts. Journal of Molecular Recognition, 2018, 31, e2719.	1.1	16
285	On the nonlinear dynamics of trolling-mode AFM: Analytical solution using multiple time scales method. Journal of Sound and Vibration, 2018, 423, 263-286.	2.1	13
286	Nonlinear compliance of elastic layers to indentation. Biomechanics and Modeling in Mechanobiology, 2018, 17, 419-438.	1.4	6
287	Culturing substrates influence the morphological, mechanical and biochemical features of lung adenocarcinoma cells cultured in 2D or 3D. Tissue and Cell, 2018, 50, 15-30.	1.0	25
288	Changes in nanoâ€mechanical properties of human epidermal cornified cells depending on their proximity to the skin surface. Journal of Molecular Recognition, 2018, 31, e2722.	1.1	15
289	FC_analysis: a tool for investigating atomic force microscopy maps of force curves. BMC Bioinformatics, 2018, 19, 258.	1.2	14

#	Article	IF	CITATIONS
290	Nanometrology of Biomass for Bioenergy: The Role of Atomic Force Microscopy and Spectroscopy in Plant Cell Characterization. Frontiers in Energy Research, 2018, 6, .	1.2	13
291	Towards nanoscale electrical measurements in liquid by advanced KPFM techniques: a review. Reports on Progress in Physics, 2018, 81, 086101.	8.1	70
292	Increased Substrate Stiffness Elicits a Myofibroblastic Phenotype in Human Lamina Cribrosa Cells. , 2018, 59, 803.		21
293	Engineering approaches for characterizing soft tissue mechanical properties: A review. Clinical Biomechanics, 2019, 69, 127-140.	0.5	35
294	Size-dependent random vibration analysis of AFM probe with tip mass considering surface viscoelastic effect. European Physical Journal Plus, 2019, 134, 1.	1.2	5
295	Application of atomic force microscopy in the analysis of time since deposition (TSD) of red blood cells in bloodstains: A forensic analysis. Forensic Science International, 2019, 301, 254-262.	1.3	20
296	Bacterial-nanostructure interactions: The role of cell elasticity and adhesion forces. Journal of Colloid and Interface Science, 2019, 546, 192-210.	5.0	120
297	Shear-Enhanced Dynamic Adhesion ofLactobacillus rhamnosusGG on Intestinal Epithelia: Correlative Effect of Protein Expression and Interface Mechanics. Langmuir, 2019, 35, 529-537.	1.6	9
298	Analytical modeling and experimental verification for vibration of piezoelectric U-shaped AFM incorporating thermal loading and surface effect. Waves in Random and Complex Media, 2020, 30, 269-291.	1.6	4
299	Visco-hyperelastic characterization of human brain white matter micro-level constituents in different strain rates. Medical and Biological Engineering and Computing, 2020, 58, 2107-2118.	1.6	16
300	Nanomechanics in Monitoring the Effectiveness of Drugs Targeting the Cancer Cell Cytoskeleton. International Journal of Molecular Sciences, 2020, 21, 8786.	1.8	25
301	Extensions of the worm-like-chain model to tethered active filaments under tension. Journal of Chemical Physics, 2020, 153, 194901.	1.2	6
302	Lipid bilayers: Phase behavior and nanomechanics. Current Topics in Membranes, 2020, 86, 1-55.	0.5	15
303	Sensing and Modelling Mechanical Response in Large Deformation Indentation of Adherent Cell Using Atomic Force Microscopy. Sensors, 2020, 20, 1764.	2.1	5
304	Robust and Efficient Parametric Spectral Density Estimation for High-Throughput Data. Technometrics, 0, , 1-22.	1.3	1
306	Simultaneous membrane binding of Annexin A4 and A5 suppresses 2D lattice formation while maintaining curvature induction. Journal of Colloid and Interface Science, 2021, 600, 854-864.	5.0	9
307	Principles of Advanced Manufacturing Technologies for Biomedical Devices. Materials Horizons, 2022, , 361-402.	0.3	2
308	The functional cross talk between cancer cells and cancer associated fibroblasts from a cancer mechanics perspective. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, 1868, 119103.	1.9	17

#	Article	IF	CITATIONS
310	Interfacial Behaviors of Proteins. AAPS Advances in the Pharmaceutical Sciences Series, 2021, , 51-114.	0.2	2
312	AFM Imaging in Physiological Environment: From Biomolecules to Living Cells. , 2008, , 1379-1438.		1
313	Mechanobiology of Epidermal Keratinocytes: Desmosomes, Hemidesmosomes, Keratin Intermediate Filaments, and Blistering Skin Diseases. , 2011, , 169-210.		2
314	Cell Manipulation with Robot-Aided Optical Tweezers Technology. , 2013, , 159-174.		1
315	Atomic Force Microscopy of Proteins. Methods in Molecular Biology, 2020, 2073, 247-285.	0.4	9
316	Atomic Force Microscopy Studies of the Mechanical Properties of Living Cells. , 2008, , 89-109.		4
317	Atomic Force Microscopy Studies of the Mechanical Properties of Living Cells., 2010, , 533-553.		1
318	Adhesion of Cells. , 2010, , 221-240.		1
320	Energy Dissipation in the AFM Elasticity Measurements. Acta Physica Polonica A, 2009, 115, 548-551.	0.2	27
321	The 2-Pore Domain Potassium Channel TREK-1 Regulates Stretch-Induced Detachment of Alveolar Epithelial Cells. PLoS ONE, 2014, 9, e89429.	1.1	24
322	Heavy ion and X-ray irradiation alter the cytoskeleton and cytomechanics of cortical neurons. Neural Regeneration Research, 2014, 9, 1129.	1.6	12
323	Physical properties of gastrointestinal stromal tumors based on atomic force microscope analysis. Genetics and Molecular Research, 2013, 12, 5774-5785.	0.3	8
324	Introductory biomechanics: from cells to organisms. Choice Reviews, 2007, 45, 45-1476-45-1476.	0.4	30
325	On the application of scanning force microscopy in (cell) biology. , 2002, , 392-416.		0
326	Scanning Tunneling Microscopy (STM) and Spectroscopy (STS), Atomic Force Microscopy (AFM). Springer Series in Materials Science, 2003, , 321-362.	0.4	0
327	Nanoscale Mechanical Properties – Measuring Techniques and Applications. , 2004, , 661-685.		0
328	Nanoscale Mechanical Properties â€" Measuring Techniques and Applications. , 2004, , 661-685.		0
329	Atomic Force Microscopy. The Electrical Engineering Handbook, 2006, , 67-1-67-29.	0.2	0

#	ARTICLE	IF	CITATIONS
330	Nanoscale Mechanical Properties – Measuring Techniques and Applications. , 2007, , 1107-1136.		0
331	Photo-oxidative Stress in the Presence of a Water-soluble Derivative of C60: ESR and AFM Assays. , 2007, , 153-180.		0
333	Nanoforce and Imaging., 2009,, 375-475.		0
334	Quantitative Nanomechanical Measurements in Biology. , 2010, , 239-273.		0
335	Cellular Physiology of Epithelium and Endothelium. , 2010, , 599-620.		0
337	Correlative Nanoscopy. Series in Cellular and Clinical Imaging, 2016, , 149-167.	0.2	0
339	Viscoelastic multiscaling in immersed networks. Physical Review Research, 2020, 2, .	1.3	4
340	AFM force spectroscopy as a powerful tool to address material design for biomedical applications. AÂreview. Biomedical Spectroscopy and Imaging, 2020, 9, 141-164.	1.2	0
341	Acoustic mapping by picosecond ultrasonics for elastic property measurement: Experimental demonstration on a TRISO fuel compact. Journal of Nuclear Materials, 2022, 558, 153391.	1.3	2
342	Cellular Physiology of Epithelium and Endothelium. , 2008, , 127-148.		0
343	The Emergence of AFM Applications to Cell Biology: How new technologies are facilitating investigation of human cells in health and disease at the nanoscale. Journal of Nanoscience Letters, 2011, 1, 87-101.	1.0	6
344	Reveal Anisotropic Elasticity of Endothelium Under Fluidic Shear Stress. SSRN Electronic Journal, 0, , .	0.4	0
345	Revealing anisotropic elasticity of endothelium under fluid shear stress. Acta Biomaterialia, 2022, 145, 316-328.	4.1	4
346	A paradigm shift: Bioengineering meets mechanobiology towards overcoming remyelination failure. Biomaterials, 2022, 283, 121427.	5.7	6
350	Atomic force microscopy indentation for nanomechanical characterization of live pathological cardiovascular/heart tissue and cells. Micron, 2022, 158, 103287.	1.1	4
351	Large extracellular vesicles do not mitigate the harmful effect of hyperglycemia on endothelial cell mobility. European Journal of Cell Biology, 2022, 101, 151266.	1.6	3
352	Connecting Aortic Stiffness to Vascular Contraction: Does Sex Matter?. International Journal of Molecular Sciences, 2022, 23, 11314.	1.8	1
353	Rheological comparison between control and Dupuytren fibroblasts when plated in circular micropatterns using atomic force microscopy. Frontiers in Physics, 0, 10, .	1.0	1

#	Article	IF	CITATIONS
354	Molecular and cellular level characterization of cytoskeletal mechanics using a quartz crystal microbalance. Cytoskeleton, 2023, 80, 100-111.	1.0	1
355	Competition between deformation and free volume quantified by 3D image analysis of red blood cell. Biophysical Journal, 2023, , .	0.2	1
356	4D Force Detection of Cell Adhesion and Contractility. Nano Letters, 2023, 23, 2467-2475.	4.5	1