

Denis Wirtz

List of Publications by Year in descending order

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Version: 2024-02-01

226
papers

24,696
citations

5876

81
h-index

9311

143
g-index

237
all docs

237
docs citations

237
times ranked

26586
citing authors

#	ARTICLE	IF	CITATIONS
1	Cell Trafficking at the Intersection of the Tumor–Immune Compartments. Annual Review of Biomedical Engineering, 2022, 24, 275-305.	5.7	9
2	Mechanical tension mobilizes Lgr6 ⁺ epidermal stem cells to drive skin growth. Science Advances, 2022, 8, eabl8698.	4.7	11
3	Deep learning identification of stiffness markers in breast cancer. Biomaterials, 2022, 285, 121540.	5.7	8
4	Effect of an alkyl spacer on the morphology and internalization of MUC1 naphthalimide amphiphiles for targeting and imaging triple negative breast cancer cells. Bioengineering and Translational Medicine, 2021, 6, e10194.	3.9	6
5	A robust unsupervised machine-learning method to quantify the morphological heterogeneity of cells and nuclei. Nature Protocols, 2021, 16, 754-774.	5.5	58
6	Extracellular vesicles in immunomodulation and tumor progression. Nature Immunology, 2021, 22, 560-570.	7.0	233
7	Characterization of tumor-associated macrophages in prostate cancer transgenic mouse models. Prostate, 2021, 81, 629-647.	1.2	10
8	Fractional re-distribution among cell motility states during ageing. Communications Biology, 2021, 4, 81.	2.0	9
9	Use of the p-values as a size-dependent function to address practical differences when analyzing large datasets. Scientific Reports, 2021, 11, 20942.	1.6	35
10	Three-dimensional visualization of cleared human pancreas cancer reveals that sustained epithelial-to-mesenchymal transition is not required for venous invasion. Modern Pathology, 2020, 33, 639-647.	2.9	47
11	Dorsoventral polarity directs cell responses to migration track geometries. Science Advances, 2020, 6, eaba6505.	4.7	39
12	Completing the Great Unfinished Symphony of Cancer Together: The Importance of Immigrants in Cancer Research. Cancer Cell, 2020, 38, 301-305.	7.7	0
13	Three-dimensional analysis of extrahepatic cholangiocarcinoma and tumor budding. Journal of Pathology, 2020, 251, 400-410.	2.1	16
14	Inactivation of Arid1a in the endometrium is associated with endometrioid tumorigenesis through transcriptional reprogramming. Nature Communications, 2020, 11, 2717.	5.8	45
15	Single-cell morphology encodes metastatic potential. Science Advances, 2020, 6, eaaw6938.	4.7	112
16	Dynamic organelle distribution initiates actin-based spindle migration in mouse oocytes. Nature Communications, 2020, 11, 277.	5.8	44
17	Supramolecular Design of Unsymmetric Reverse Bolaamphiphiles for Cell-Sensitive Hydrogel Degradation and Drug Release. Angewandte Chemie, 2020, 132, 4464-4472.	1.6	46
18	Supramolecular Design of Unsymmetric Reverse Bolaamphiphiles for Cell-Sensitive Hydrogel Degradation and Drug Release. Angewandte Chemie - International Edition, 2020, 59, 4434-4442.	7.2	60

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19	Particle tracking microrheology of cancer cells in living subjects. <i>Materials Today</i> , 2020, 39, 98-109.	8.3	20
20	Single Cell Volume Measurement Utilizing the Fluorescence Exclusion Method (FXm). <i>Bio-protocol</i> , 2020, 10, e3652.	0.2	2
21	YAP and TAZ regulate cell volume. <i>Journal of Cell Biology</i> , 2019, 218, 3472-3488.	2.3	39
22	Enabling migration by moderation: YAP/TAZ are essential for persistent migration. <i>Journal of Cell Biology</i> , 2019, 218, 1092-1093.	2.3	7
23	Recapitulation of molecular regulators of nuclear motion during cell migration. <i>Cell Adhesion and Migration</i> , 2019, 13, 50-62.	1.1	17
24	Solid Stress in Brain Tumors. <i>Trends in Cancer</i> , 2019, 5, 266-268.	3.8	0
25	Dissecting cellular mechanics: Implications for aging, cancer, and immunity. <i>Seminars in Cell and Developmental Biology</i> , 2019, 93, 16-25.	2.3	18
26	Immunolabeling of Cleared Human Pancreata Provides Insights into Three-Dimensional Pancreatic Anatomy and Pathology. <i>American Journal of Pathology</i> , 2018, 188, 1530-1535.	1.9	38
27	Inhibition of ovarian tumor cell invasiveness by targeting SYK in the tyrosine kinase signaling pathway. <i>Oncogene</i> , 2018, 37, 3778-3789.	2.6	22
28	Role of membrane-tension gated Ca flux in cell mechanosensation. <i>Journal of Cell Science</i> , 2018, 131, .	1.2	36
29	EB1 and cytoplasmic dynein mediate protrusion dynamics for efficient 3-dimensional cell migration. <i>FASEB Journal</i> , 2018, 32, 1207-1221.	0.2	26
30	Isomeric control of the mechanical properties of supramolecular filament hydrogels. <i>Biomaterials Science</i> , 2018, 6, 216-224.	2.6	6
31	Tumor cell density regulates matrix metalloproteinases for enhanced migration. <i>Oncotarget</i> , 2018, 9, 32556-32569.	0.8	26
32	Mechanics of the Cell Nucleus. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1092, 41-55.	0.8	16
33	Metabolic and Mechanical Cues Regulating Pluripotent Stem Cell Fate. <i>Trends in Cell Biology</i> , 2018, 28, 1014-1029.	3.6	52
34	The Biophysics of 3D Cell Migration. <i>Annual Review of Biophysics</i> , 2018, 47, 549-567.	4.5	35
35	Multi-nucleated cells use ROS to induce breast cancer chemo-resistance in vitro and in vivo. <i>Oncogene</i> , 2018, 37, 4546-4561.	2.6	61
36	Cell tension and mechanical regulation of cell volume. <i>Molecular Biology of the Cell</i> , 2018, 29, 0-0.	0.9	64

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37	A comparison of methods to assess cell mechanical properties. <i>Nature Methods</i> , 2018, 15, 491-498.	9.0	448
38	Tumour mechanopathology: Cutting the stress out. <i>Nature Biomedical Engineering</i> , 2017, 1, .	11.6	9
39	Transient Opening of the Mitochondrial Permeability Transition Pore Induces Microdomain Calcium Transients in Astrocyte Processes. <i>Neuron</i> , 2017, 93, 587-605.e7.	3.8	338
40	Hypoxia Selectively Enhances Integrin $\alpha 5 \beta 1$ Receptor Expression in Breast Cancer to Promote Metastasis. <i>Molecular Cancer Research</i> , 2017, 15, 723-734.	1.5	99
41	Modeling the two-way feedback between contractility and matrix realignment reveals a nonlinear mode of cancer cell invasion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E1617-E1626.	3.3	158
42	Affine and non-affine deformations quantified in cytoskeletal networks through three-dimensional form-finding model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 72, 52-65.	1.5	11
43	Synergistic IL-6 and IL-8 paracrine signalling pathway infers a strategy to inhibit tumour cell migration. <i>Nature Communications</i> , 2017, 8, 15584.	5.8	133
44	Pluri-IQ: Quantification of Embryonic Stem Cell Pluripotency through an Image-Based Analysis Software. <i>Stem Cell Reports</i> , 2017, 9, 697-709.	2.3	19
45	Nuclear lamin A/C harnesses the perinuclear apical actin cables to protect nuclear morphology. <i>Nature Communications</i> , 2017, 8, 2123.	5.8	132
46	Going with the Flow: Water Flux and Cell Shape during Cytokinesis. <i>Biophysical Journal</i> , 2017, 113, 2487-2495.	0.2	17
47	Mammalian Cell Division in 3D Matrices via Quantitative Confocal Reflection Microscopy. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	4
48	Cancer Protrusions on a Tigtrope: Nanofiber Curvature Contrast Quantitates Single Protrusion Dynamics. <i>ACS Nano</i> , 2017, 11, 12037-12048.	7.3	34
49	Biophysical and biomolecular determination of cellular age in humans. <i>Nature Biomedical Engineering</i> , 2017, 1, .	11.6	74
50	Loss of giant obscurins alters breast epithelial cell mechanosensing of matrix stiffness. <i>Oncotarget</i> , 2017, 8, 54004-54020.	0.8	21
51	Evolution of cellular morpho-phenotypes in cancer metastasis. <i>Scientific Reports</i> , 2016, 5, 18437.	1.6	81
52	Confinement Sensing and Signal Optimization via Piezo1/PKA and Myosin II Pathways. <i>Cell Reports</i> , 2016, 15, 1430-1441.	2.9	137
53	Engineered Models of Confined Cell Migration. <i>Annual Review of Biomedical Engineering</i> , 2016, 18, 159-180.	5.7	115
54	A robust nonlinear tissue-component discrimination method for computational pathology. <i>Laboratory Investigation</i> , 2016, 96, 450-458.	1.7	9

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55	Biophysical changes reduce energetic demand in growth factor-deprived lymphocytes. <i>Journal of Cell Biology</i> , 2016, 212, 439-447.	2.3	21
56	Differential vesicular sorting of AMPA and GABA _A receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E922-31.	3.3	58
57	Local 3D matrix confinement determines division axis through cell shape. <i>Oncotarget</i> , 2016, 7, 6994-7011.	0.8	16
58	Multiple scale model for cell migration in monolayers: Elastic mismatch between cells enhances motility. <i>Scientific Reports</i> , 2015, 5, 11745.	1.6	81
59	Three-dimensional matrix fiber alignment modulates cell migration and MT1-MMP utility by spatially and temporally directing protrusions. <i>Scientific Reports</i> , 2015, 5, 14580.	1.6	183
60	Collective cancer cell invasion induced by coordinated contractile stresses. <i>Oncotarget</i> , 2015, 6, 43438-43451.	0.8	70
61	The Mechanobiology of Aging. <i>Annual Review of Biomedical Engineering</i> , 2015, 17, 113-141.	5.7	216
62	Cytoskeletal tension induces the polarized architecture of the nucleus. <i>Biomaterials</i> , 2015, 48, 161-172.	5.7	121
63	Statistical analysis of cell migration in 3D using the anisotropic persistent random walk model. <i>Nature Protocols</i> , 2015, 10, 517-527.	5.5	96
64	Inhibition of Spleen Tyrosine Kinase Potentiates Paclitaxel-Induced Cytotoxicity in Ovarian Cancer Cells by Stabilizing Microtubules. <i>Cancer Cell</i> , 2015, 28, 82-96.	7.7	125
65	Volume regulation and shape bifurcation in the cell nucleus. <i>Journal of Cell Science</i> , 2015, 128, 3375-85.	1.2	104
66	COX-2 dependent regulation of mechanotransduction in human breast cancer cells. <i>Cancer Biology and Therapy</i> , 2015, 16, 430-437.	1.5	20
67	Distinct kinetic and mechanical properties govern mucin 16- and podocalyxin-mediated tumor cell adhesion to E- and L-selectin in shear flow. <i>Oncotarget</i> , 2015, 6, 24842-24855.	0.8	10
68	Normal mammary epithelial cells promote carcinoma basement membrane invasion by inducing microtubule-rich protrusions. <i>Oncotarget</i> , 2015, 6, 32634-32645.	0.8	14
69	Senescent stromal cells induce cancer cell migration via inhibition of RhoA/ROCK/myosin-based cell contractility. <i>Oncotarget</i> , 2015, 6, 30516-30531.	0.8	28
70	Nuclear Envelope in Nuclear Positioning and Cell Migration. <i>Advances in Experimental Medicine and Biology</i> , 2014, 773, 471-490.	0.8	24
71	Switching from Protease-Independent to Protease-Dependent Cancer Cell Invasion. <i>Biophysical Journal</i> , 2014, 107, 2484-2485.	0.2	5
72	Morphological Effects on Expression of Growth Differentiation Factor 15 (GDF15), a Marker of Metastasis. <i>Journal of Cellular Physiology</i> , 2014, 229, 362-373.	2.0	30

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73	Tight coupling between nucleus and cell migration through the perinuclear actin cap. <i>Journal of Cell Science</i> , 2014, 127, 2528-41.	1.2	105
74	Water Permeation Drives Tumor Cell Migration in Confined Microenvironments. <i>Cell</i> , 2014, 157, 611-623.	13.5	416
75	Hypoxia and the extracellular matrix: drivers of tumour metastasis. <i>Nature Reviews Cancer</i> , 2014, 14, 430-439.	12.8	1,110
76	Hypoxia-inducible factors mediate coordinated RhoA-ROCK1 expression and signaling in breast cancer cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E384-93.	3.3	165
77	Three-dimensional cell migration does not follow a random walk. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3949-3954.	3.3	281
78	The Arp2/3 complex mediates multigeneration dendritic protrusions for efficient 3-dimensional cancer cell migration. <i>FASEB Journal</i> , 2013, 27, 4089-4099.	0.2	65
79	Functional interplay between the cell cycle and cell phenotypes. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 523-534.	0.6	23
80	Focal adhesion size uniquely predicts cell migration. <i>FASEB Journal</i> , 2013, 27, 1351-1361.	0.2	299
81	β -Catenin Serves as a Clutch between Low and High Intercellular E-Cadherin Bond Strengths. <i>Biophysical Journal</i> , 2013, 105, 2289-2300.	0.2	11
82	Dimensional Control of Cancer Cell Migration. <i>Biophysical Journal</i> , 2013, 104, 279-280.	0.2	21
83	Modulation of keratocyte phenotype by collagen fibril nanoarchitecture in membranes for corneal repair. <i>Biomaterials</i> , 2013, 34, 9365-9372.	5.7	39
84	Interstitial Friction Greatly Impacts Membrane Mechanics. <i>Biophysical Journal</i> , 2013, 104, 1217-1218.	0.2	1
85	The multi-faceted role of the actin cap in cellular mechanosensation and mechanotransduction. <i>Soft Matter</i> , 2013, 9, 5516.	1.2	72
86	Simultaneously defining cell phenotypes, cell cycle, and chromatin modifications at single-cell resolution. <i>FASEB Journal</i> , 2013, 27, 2667-2676.	0.2	24
87	Hypoxia-inducible Factor 1 (HIF-1) Promotes Extracellular Matrix Remodeling under Hypoxic Conditions by Inducing P4HA1, P4HA2, and PLOD2 Expression in Fibroblasts. <i>Journal of Biological Chemistry</i> , 2013, 288, 10819-10829.	1.6	406
88	High-Throughput Secretomic Analysis of Single Cells to Assess Functional Cellular Heterogeneity. <i>Analytical Chemistry</i> , 2013, 85, 2548-2556.	3.2	156
89	Predicting how cells spread and migrate. <i>Cell Adhesion and Migration</i> , 2013, 7, 293-296.	1.1	68
90	Age-dependent stochastic models for understanding population fluctuations in continuously cultured cells. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20130325.	1.5	45

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91	Procollagen Lysyl Hydroxylase 2 Is Essential for Hypoxia-Induced Breast Cancer Metastasis. <i>Molecular Cancer Research</i> , 2013, 11, 456-466.	1.5	216
92	Collagen Prolyl Hydroxylases Are Essential for Breast Cancer Metastasis. <i>Cancer Research</i> , 2013, 73, 3285-3296.	0.4	251
93	A physical sciences network characterization of non-tumorigenic and metastatic cells. <i>Scientific Reports</i> , 2013, 3, 1449.	1.6	146
94	Adhesion and fusion efficiencies of human immunodeficiency virus type 1 (HIV-1) surface proteins. <i>Scientific Reports</i> , 2013, 3, 3014.	1.6	12
95	The LINC-anchored actin cap connects the extracellular milieu to the nucleus for ultrafast mechanotransduction. <i>Scientific Reports</i> , 2013, 3, 1087.	1.6	158
96	Form-Finding Model Shows How Cytoskeleton Network Stiffness Is Realized. <i>PLoS ONE</i> , 2013, 8, e77417.	1.1	8
97	The distinct roles of the nucleus and nucleus-cytoskeleton connections in three-dimensional cell migration. <i>Scientific Reports</i> , 2012, 2, 488.	1.6	136
98	NAC1 Is an Actin-Binding Protein That Is Essential for Effective Cytokinesis in Cancer Cells. <i>Cancer Research</i> , 2012, 72, 4085-4096.	0.4	29
99	Actin cap associated focal adhesions and their distinct role in cellular mechanosensing. <i>Scientific Reports</i> , 2012, 2, 555.	1.6	159
100	Dimensional and temporal controls of three-dimensional cell migration by zyxin and binding partners. <i>Nature Communications</i> , 2012, 3, 719.	5.8	92
101	Mismatch in Mechanical and Adhesive Properties Induces Pulsating Cancer Cell Migration in Epithelial Monolayer. <i>Biophysical Journal</i> , 2012, 102, 2731-2741.	0.2	89
102	Distinct Kinetic and Molecular Requirements Govern CD44 Binding to Hyaluronan versus Fibrin(ogen). <i>Biophysical Journal</i> , 2012, 103, 415-423.	0.2	23
103	High-throughput ballistic injection nanorheology to measure cell mechanics. <i>Nature Protocols</i> , 2012, 7, 155-170.	5.5	52
104	The Differential Formation of the LINC-Mediated Perinuclear Actin Cap in Pluripotent and Somatic Cells. <i>PLoS ONE</i> , 2012, 7, e36689.	1.1	51
105	Divergent roles of CD44 and carcinoembryonic antigen in colon cancer metastasis. <i>FASEB Journal</i> , 2012, 26, 2648-2656.	0.2	48
106	Hypoxia-inducible factor 1 is a master regulator of breast cancer metastatic niche formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 16369-16374.	3.3	375
107	Magnetic Manipulation of Nanorods in the Nucleus of Living Cells. <i>Biophysical Journal</i> , 2011, 101, 1880-1886.	0.2	64
108	Nucleation and Decay Initiation Are the Stiffness-Sensitive Phases of Focal Adhesion Maturation. <i>Biophysical Journal</i> , 2011, 101, 2919-2928.	0.2	38

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109	Reply: reducing background fluorescence reveals adhesions in 3D matrices. <i>Nature Cell Biology</i> , 2011, 13, 5-7.	4.6	53
110	The physics of cancer: the role of physical interactions and mechanical forces in metastasis. <i>Nature Reviews Cancer</i> , 2011, 11, 512-522.	12.8	1,038
111	Single-molecule binding of CD44 to fibrin versus P-selectin predicts their distinct shear-dependent interactions in cancer. <i>Journal of Cell Science</i> , 2011, 124, 1903-1910.	1.2	30
112	SMRT analysis of MTOC and nuclear positioning reveals the role of EB1 and LIC1 in single-cell polarization. <i>Journal of Cell Science</i> , 2011, 124, 4267-4285.	1.2	40
113	Recapitulating cancer cell invasion in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 6693-6694.	3.3	9
114	Single-Molecule Analysis of Cell-Virus Binding Interactions. , 2011, , 153-166.		0
115	Intra- and Extracellular Microrheology of Endothelial Cells in a 3D Matrix. <i>Biological and Medical Physics Series</i> , 2011, , 69-87.	0.3	1
116	Cross-linking FtsZ polymers into coherent Z rings. <i>Molecular Microbiology</i> , 2010, 78, 651-668.	1.2	72
117	A distinctive role for focal adhesion proteins in three-dimensional cell motility. <i>Nature Cell Biology</i> , 2010, 12, 598-604.	4.6	525
118	Bundles from boundaries. <i>Nature Materials</i> , 2010, 9, 788-790.	13.3	9
119	Triggering cell detachment from patterned electrode arrays by programmed subcellular release. <i>Nature Protocols</i> , 2010, 5, 1273-1280.	5.5	17
120	Dynamics of the Bacterial Intermediate Filament Crescentin In Vitro and In Vivo. <i>PLoS ONE</i> , 2010, 5, e8855.	1.1	20
121	Organization of Cellular Receptors into a Nanoscale Junction during HIV-1 Adhesion. <i>PLoS Computational Biology</i> , 2010, 6, e1000855.	1.5	18
122	The perinuclear actin cap in health and disease. <i>Nucleus</i> , 2010, 1, 337-342.	0.6	64
123	Interplay of RhoA and Motility in the Programmed Spreading of Daughter Cells Postmitosis. <i>Biophysical Journal</i> , 2010, 99, 3526-3534.	0.2	15
124	Differences in the Microrheology of Human Embryonic Stem Cells and Human Induced Pluripotent Stem Cells. <i>Biophysical Journal</i> , 2010, 99, 3563-3570.	0.2	34
125	PEG-Based Hydrogels with Collagen Mimetic Peptide-Mediated and Tunable Physical Cross-Links. <i>Biomacromolecules</i> , 2010, 11, 2336-2344.	2.6	86
126	Torsional Mechanics of DNA Are Regulated by Small-Molecule Intercalation. <i>Journal of Physical Chemistry B</i> , 2010, 114, 16929-16935.	1.2	42

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127	Î±-Actinin and Filamin Cooperatively Enhance the Stiffness of Actin Filament Networks. PLoS ONE, 2009, 4, e4411.	1.1	54
128	Resolving the Role of Actomyosin Contractility in Cell Microrheology. PLoS ONE, 2009, 4, e7054.	1.1	55
129	A perinuclear actin cap regulates nuclear shape. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19017-19022.	3.3	511
130	Condensation of FtsZ filaments can drive bacterial cell division. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 121-126.	3.3	130
131	Loss of Î±-Catenin Decreases the Strength of Single E-cadherin Bonds between Human Cancer Cells. Journal of Biological Chemistry, 2009, 284, 18252-18259.	1.6	54
132	Asymmetric enrichment of PIE-1 in the <i>Caenorhabditis elegans</i> zygote mediated by binary counterdiffusion. Journal of Cell Biology, 2009, 184, 473-479.	2.3	49
133	Programmed subcellular release for studying the dynamics of cell detachment. Nature Methods, 2009, 6, 211-213.	9.0	43
134	Micro- and macrorheology of mucus. Advanced Drug Delivery Reviews, 2009, 61, 86-100.	6.6	919
135	Magnetic Tweezers Measurement of Single Molecule Torque. Nano Letters, 2009, 9, 1720-1725.	4.5	101
136	Particle-Tracking Microrheology of Living Cells: Principles and Applications. Annual Review of Biophysics, 2009, 38, 301-326.	4.5	559
137	Exploiting Nucleation and Growth in the Synthesis and Electrical Passivation of CdSe Quantum Dots. Science of Advanced Materials, 2009, 1, 93-100.	0.1	9
138	Altering Mucus Rheology to "Solidify" Human Mucus at the Nanoscale. PLoS ONE, 2009, 4, e4294.	1.1	120
139	Real-Time Intracellular Transport of Gene Nanocarriers Studied by Multiple Particle Tracking. Biotechnology Progress, 2008, 20, 598-602.	1.3	73
140	Structural requirements for the assembly of LINC complexes and their function in cellular mechanical stiffness. Experimental Cell Research, 2008, 314, 1892-1905.	1.2	248
141	MinC Spatially Controls Bacterial Cytokinesis by Antagonizing the Scaffolding Function of FtsZ. Current Biology, 2008, 18, 235-244.	1.8	193
142	Chapter 15 Live-Cell Single-Molecule Force Spectroscopy. Methods in Cell Biology, 2008, 89, 411-432.	0.5	17
143	Mapping Local Matrix Remodeling Induced by a Migrating Tumor Cell Using Three-Dimensional Multiple-Particle Tracking. Biophysical Journal, 2008, 95, 4077-4088.	0.2	135
144	Polymerization and Bundling Kinetics of FtsZ Filaments. Biophysical Journal, 2008, 95, 4045-4056.	0.2	54

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145	Î±-Catenin mediates initial E-cadherin-dependent cell-cell recognition and subsequent bond strengthening. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 18331-18336.	3.3	70
146	The Filamentous Actin Cross-Linking/Bundling Activity of Mammalian Formins. <i>Journal of Molecular Biology</i> , 2008, 384, 324-334.	2.0	52
147	Dysfunctional Connections Between the Nucleus and the Actin and Microtubule Networks in Laminopathic Models. <i>Biophysical Journal</i> , 2008, 95, 5462-5475.	0.2	181
148	Fibronectin fibrillogenesis regulates three-dimensional neovessel formation. <i>Genes and Development</i> , 2008, 22, 1231-1243.	2.7	179
149	Monitoring Early Fusion Dynamics of Human Immunodeficiency Virus Type 1 at Single-Molecule Resolution. <i>Journal of Virology</i> , 2008, 82, 7022-7033.	1.5	49
150	Chapter 18 Sensing Cytoskeletal Mechanics by Ballistic Intracellular Nanorheology (BIN) Coupled with Cell Transfection. <i>Methods in Cell Biology</i> , 2008, 89, 467-486.	0.5	2
151	Probing Cellular Mechanical Responses to Stimuli Using Ballistic Intracellular Nanorheology. <i>Methods in Cell Biology</i> , 2007, 83, 113-140.	0.5	24
152	Nuclear Lamin A/C Deficiency Induces Defects in Cell Mechanics, Polarization, and Migration. <i>Biophysical Journal</i> , 2007, 93, 2542-2552.	0.2	271
153	Micro-heterogeneity and micro-rheological properties of high-viscosity oat Î²-glucan solutions. <i>Food Chemistry</i> , 2007, 103, 1192-1198.	4.2	14
154	Mechanics and Dynamics of Actin-Driven Thin Membrane Protrusions. <i>Biophysical Journal</i> , 2006, 90, 65-76.	0.2	162
155	Mechanics of Enveloped Virus Entry into Host Cells. <i>Biophysical Journal</i> , 2006, 90, L10-L12.	0.2	73
156	Probing Single-Cell Micromechanics In Vivo: The Microrheology of <i>C. elegans</i> Developing Embryos. <i>Biophysical Journal</i> , 2006, 90, 4712-4719.	0.2	166
157	Microrheology and ROCK Signaling of Human Endothelial Cells Embedded in a 3D Matrix. <i>Biophysical Journal</i> , 2006, 91, 3499-3507.	0.2	90
158	Probing Intercellular Interactions between Vascular Endothelial Cadherin Pairs at Single-molecule Resolution and in Living Cells. <i>Journal of Molecular Biology</i> , 2006, 358, 665-674.	2.0	55
159	GTPase Activity, Structure, and Mechanical Properties of Filaments Assembled from Bacterial Cytoskeleton Protein MreB. <i>Journal of Bacteriology</i> , 2006, 188, 968-976.	1.0	62
160	A Direct Interaction between Actin and Vimentin Filaments Mediated by the Tail Domain of Vimentin*. <i>Journal of Biological Chemistry</i> , 2006, 281, 30393-30399.	1.6	150
161	Single-molecule analysis of cadherin-mediated cell-cell adhesion. <i>Journal of Cell Science</i> , 2006, 119, 66-74.	1.2	194
162	Ballistic intracellular nanorheology reveals ROCK-hard cytoplasmic stiffening response to fluid flow. <i>Journal of Cell Science</i> , 2006, 119, 1760-1768.	1.2	101

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163	Single-Molecule Analysis of Human Immunodeficiency Virus Type 1 gp120-Receptor Interactions in Living Cells. <i>Journal of Virology</i> , 2005, 79, 14748-14755.	1.5	71
164	Intracellular Mechanics of Migrating Fibroblasts. <i>Molecular Biology of the Cell</i> , 2005, 16, 328-338.	0.9	161
165	The Assembly of MreB, a Prokaryotic Homolog of Actin. <i>Journal of Biological Chemistry</i> , 2005, 280, 2628-2635.	1.6	108
166	Cdc42 Mediates Nucleus Movement and MTOC Polarization in Swiss 3T3 Fibroblasts under Mechanical Shear Stress. <i>Molecular Biology of the Cell</i> , 2005, 16, 871-880.	0.9	82
167	The rapid onset of elasticity during the assembly of the bacterial cell-division protein FtsZ. <i>Biochemical and Biophysical Research Communications</i> , 2005, 333, 508-516.	1.0	12
168	How actin crosslinking and bundling proteins cooperate to generate an enhanced cell mechanical response. <i>Biochemical and Biophysical Research Communications</i> , 2005, 334, 183-192.	1.0	113
169	Cell migration without a lamellipodium. <i>Journal of Cell Biology</i> , 2005, 168, 619-631.	2.3	257
170	Morphology of the Lamellipodium and Organization of Actin Filaments at the Leading Edge of Crawling Cells. <i>Biophysical Journal</i> , 2005, 89, 3589-3602.	0.2	85
171	Structure-function relationship of biological gels revealed by multiple-particle tracking and differential interference contrast microscopy: The case of human lamin networks. <i>Physical Review E</i> , 2004, 70, 041906.	0.8	29
172	Dendritic Branching and Homogenization of Actin Networks Mediated by Arp2/3 Complex. <i>Physical Review Letters</i> , 2004, 93, 258104.	2.9	26
173	Intracellular Microrheology as a Tool for the Measurement of the Local Mechanical Properties of Live Cells. <i>Methods in Cell Biology</i> , 2004, 78, 45-64.	0.5	29
174	Micro-organization and visco-elasticity of the interphase nucleus revealed by particle nanotracking. <i>Journal of Cell Science</i> , 2004, 117, 2159-2167.	1.2	236
175	Distinct kinetic and mechanical properties govern selectin-leukocyte interactions. <i>Journal of Cell Science</i> , 2004, 117, 2503-2511.	1.2	102
176	Rho Kinase Regulates the Intracellular Micromechanical Response of Adherent Cells to Rho Activation. <i>Molecular Biology of the Cell</i> , 2004, 15, 3475-3484.	0.9	83
177	The Bimodal Role of Filamin in Controlling the Architecture and Mechanics of F-actin Networks. <i>Journal of Biological Chemistry</i> , 2004, 279, 1819-1826.	1.6	115
178	Transport of Polymeric Nanoparticle Gene Carriers in Gastric Mucus. <i>Biotechnology Progress</i> , 2004, 20, 851-857.	1.3	115
179	Structure of the Actin Crosslinking Core of Fimbrin. <i>Structure</i> , 2004, 12, 999-1013.	1.6	100
180	Towards a regional approach to cell mechanics. <i>Trends in Cell Biology</i> , 2004, 14, 160-166.	3.6	156

#	ARTICLE	IF	CITATIONS
181	Nuclear Envelope Breakdown Requires Overcoming the Mechanical Integrity of the Nuclear Lamina. Journal of Biological Chemistry, 2004, 279, 43462-43467.	1.6	66
182	Receptor-ligand binding: "catch" bonds finally caught. Current Biology, 2003, 13, R611-R613.	1.8	61
183	The mechanical properties of simple epithelial keratins 8 and 18: discriminating between interfacial and bulk elasticities. Journal of Structural Biology, 2003, 143, 45-55.	1.3	66
184	Enhanced Viscoelasticity of Human Cystic Fibrotic Sputum Correlates with Increasing Microheterogeneity in Particle Transport. Journal of Biological Chemistry, 2003, 278, 50393-50401.	1.6	258
185	Single Molecule Characterization of P-selectin/Ligand Binding. Journal of Biological Chemistry, 2003, 278, 10556-10561.	1.6	167
186	Efficient active transport of gene nanocarriers to the cell nucleus. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3878-3882.	3.3	345
187	A mechanism of coupling RCC1 mobility to RanGTP production on the chromatin in vivo. Journal of Cell Biology, 2003, 160, 635-644.	2.3	90
188	Microheterogeneity Controls the Rate of Gelation of Actin Filament Networks. Journal of Biological Chemistry, 2002, 277, 18143-18150.	1.6	52
189	Functional Synergy of Actin Filament Cross-linking Proteins. Journal of Biological Chemistry, 2002, 277, 25609-25616.	1.6	66
190	Pairwise Assembly Determines the Intrinsic Potential for Self-Organization and Mechanical Properties of Keratin Filaments. Molecular Biology of the Cell, 2002, 13, 382-391.	0.9	87
191	Microheterogeneity and Microrheology of Wheat Gliadin Suspensions Studied by Multiple-Particle Tracking. Biomacromolecules, 2002, 3, 92-99.	2.6	46
192	Micromechanical coupling between cell surface receptors and RGD peptides. Biochemical and Biophysical Research Communications, 2002, 296, 771-778.	1.0	27
193	Effect of Length, Topology, and Concentration on the Microviscosity and Microheterogeneity of DNA Solutions. Journal of Molecular Biology, 2002, 323, 199-215.	2.0	57
194	Micromechanical Mapping of Live Cells by Multiple-Particle-Tracking Microrheology. Biophysical Journal, 2002, 83, 3162-3176.	0.2	368
195	Local dynamics and viscoelastic properties of cell biological systems. Current Opinion in Colloid and Interface Science, 2002, 7, 210-217.	3.4	36
196	Micromechanics and ultrastructure of actin filament networks crosslinked by human fascin: A comparison with β -actinin. Journal of Molecular Biology, 2001, 310, 351-366.	2.0	117
197	Mechanics and Multiple-Particle Tracking Microheterogeneity of β -Actinin-Cross-Linked Actin Filament Networks. Biophysical Journal, 2001, 81, 1643-1656.	0.2	138
198	A 'hot-spot' mutation alters the mechanical properties of keratin filament networks. Nature Cell Biology, 2001, 3, 503-506.	4.6	137

#	ARTICLE	IF	CITATIONS
199	The nonhelical tail domain of keratin 14 promotes filament bundling and enhances the mechanical properties of keratin intermediate filaments in vitro. <i>Journal of Cell Biology</i> , 2001, 155, 747-754.	2.3	66
200	Rheological Properties of Vital Wheat Gluten Suspensions. <i>Cereal Chemistry</i> , 2001, 78, 181-185.	1.1	44
201	The "ins"™ and "outs"™ of intermediate filament organization. <i>Trends in Cell Biology</i> , 2000, 10, 420-428.	3.6	160
202	Magnetic tweezers for DNA micromanipulation. <i>Review of Scientific Instruments</i> , 2000, 71, 4561.	0.6	171
203	Strain Hardening of Actin Filament Networks. <i>Journal of Biological Chemistry</i> , 2000, 275, 35886-35892.	1.6	192
204	Multiple-Particle Tracking Measurements of Heterogeneities in Solutions of Actin Filaments and Actin Bundles. <i>Biophysical Journal</i> , 2000, 79, 1095-1106.	0.2	209
205	Shear-Induced Assembly of λ -Phage DNA. <i>Biophysical Journal</i> , 2000, 79, 1530-1536.	0.2	27
206	Mechanics of Living Cells Measured by Laser Tracking Microrheology. <i>Biophysical Journal</i> , 2000, 78, 1736-1747.	0.2	476
207	Keratin Filament Suspensions Show Unique Micromechanical Properties. <i>Journal of Biological Chemistry</i> , 1999, 274, 19145-19151.	1.6	123
208	High-frequency dynamics and microrheology of macromolecular solutions probed by diffusing wave spectroscopy: the case of concentrated solutions of F-actin. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1999, 82, 303-314.	1.0	10
209	Dynamics of individual flexible polymers in a shear flow. <i>Nature</i> , 1999, 399, 564-566.	13.7	202
210	Diffusing Wave Spectroscopy Microrheology of Actin Filament Networks. <i>Biophysical Journal</i> , 1999, 76, 1063-1071.	0.2	187
211	Structure and dynamics of actin filament solutions in the presence of latrunculin A. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998, 36, 3007-3015.	2.4	10
212	High-frequency viscoelasticity of crosslinked actin filament networks measured by diffusing wave spectroscopy. <i>Rheologica Acta</i> , 1998, 37, 97-106.	1.1	75
213	Compliance of actin filament networks measured by particle-tracking microrheology and diffusing wave spectroscopy. <i>Rheologica Acta</i> , 1998, 37, 387-398.	1.1	125
214	Dominant Diffusing Mode in the Self-Similar Phase Separation of a Magnetic Suspension in a Magnetic Field. <i>Langmuir</i> , 1998, 14, 578-581.	1.6	4
215	Reversible Hydrogels from Self-Assembling Artificial Proteins. , 1998, 281, 389-392.		990
216	Rheology and Microrheology of Semiflexible Polymer Solutions: Actin Filament Networks. <i>Macromolecules</i> , 1998, 31, 6486-6492.	2.2	105

#	ARTICLE	IF	CITATIONS
217	Dynamic Cross-linking by $\hat{\pm}$ -Actinin Determines the Mechanical Properties of Actin Filament Networks. Journal of Biological Chemistry, 1998, 273, 9570-9576.	1.6	172
218	Fluctuation dynamics of a single magnetic chain. Physical Review E, 1996, 54, 5502-5510.	0.8	30
219	Direct Measurement of the Transport Properties of a Single DNA Molecule. Physical Review Letters, 1995, 75, 2436-2439.	2.9	94
220	Periodic structures and substructures in magnetic suspensions. Langmuir, 1995, 11, 398-400.	1.6	12
221	One-dimensional patterns and wavelength selection in magnetic fluids. Physical Review Letters, 1994, 72, 2294-2297.	2.9	69
222	Flow-induced scattering peak in the structure factor of polymer solutions. Physical Review E, 1994, 50, R1755-R1758.	0.8	9
223	Structure and optical anisotropies of critical polymer solutions in electric fields. Journal of Chemical Physics, 1994, 101, 1679-1686.	1.2	9
224	Fluctuation Enhancement and Reduction in Sheared Polymer Solutions. Macromolecules, 1994, 27, 5639-5642.	2.2	3
225	Phase transitions induced by electric fields in near-critical polymer solutions. Physical Review Letters, 1993, 71, 2236-2239.	2.9	70
226	Electric-field-induced structure in polymer solutions near the critical point. Macromolecules, 1992, 25, 7234-7246.	2.2	28