

Denis Wirtz

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

225
papers

19,694
citations

78
h-index

135
g-index

237
ext. papers

22,634
ext. citations

7.7
avg, IF

7.01
L-index

#	Paper	IF	Citations
225	Mechanical tension mobilizes Lgr6 epidermal stem cells to drive skin growth.. <i>Science Advances</i> , 2022 , 8, eabl8698	14.3	0
224	Deep learning identification of stiffness markers in breast cancer.. <i>Biomaterials</i> , 2022 , 285, 121540	15.6	0
223	Use of the p-values as a size-dependent function to address practical differences when analyzing large datasets. <i>Scientific Reports</i> , 2021 , 11, 20942	4.9	6
222	Extracellular vesicles in immunomodulation and tumor progression. <i>Nature Immunology</i> , 2021 , 22, 560-570	19.1	42
221	Characterization of tumor-associated macrophages in prostate cancer transgenic mouse models. <i>Prostate</i> , 2021 , 81, 629-647	4.2	1
220	Effect of an alkyl spacer on the morphology and internalization of MUC1 aptamer-naphthalimide amphiphiles for targeting and imaging triple negative breast cancer cells. <i>Bioengineering and Translational Medicine</i> , 2021 , 6, e10194	14.8	2
219	A robust unsupervised machine-learning method to quantify the morphological heterogeneity of cells and nuclei. <i>Nature Protocols</i> , 2021 , 16, 754-774	18.8	17
218	Fractional re-distribution among cell motility states during ageing. <i>Communications Biology</i> , 2021 , 4, 81	6.7	2
217	Three-dimensional analysis of extrahepatic cholangiocarcinoma and tumor budding. <i>Journal of Pathology</i> , 2020 , 251, 400-410	9.4	4
216	Inactivation of Arid1a in the endometrium is associated with endometrioid tumorigenesis through transcriptional reprogramming. <i>Nature Communications</i> , 2020 , 11, 2717	17.4	12
215	Single-cell morphology encodes metastatic potential. <i>Science Advances</i> , 2020 , 6, eaaw6938	14.3	43
214	Dynamic organelle distribution initiates actin-based spindle migration in mouse oocytes. <i>Nature Communications</i> , 2020 , 11, 277	17.4	22
213	Supramolecular Design of Unsymmetric Reverse Bolaamphiphiles for Cell-Sensitive Hydrogel Degradation and Drug Release. <i>Angewandte Chemie</i> , 2020 , 132, 4464-4472	3.6	5
212	Supramolecular Design of Unsymmetric Reverse Bolaamphiphiles for Cell-Sensitive Hydrogel Degradation and Drug Release. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 4434-4442	16.4	34
211	Particle tracking microrheology of cancer cells in living subjects. <i>Materials Today</i> , 2020 , 39, 98-109	21.8	6
210	Single Cell Volume Measurement Utilizing the Fluorescence Exclusion Method (FXm). <i>Bio-protocol</i> , 2020 , 10, e3652	0.9	1
209	Three-dimensional visualization of cleared human pancreas cancer reveals that sustained epithelial-to-mesenchymal transition is not required for venous invasion. <i>Modern Pathology</i> , 2020 , 33, 639-647	9.8	21

208	Dorsoventral polarity directs cell responses to migration track geometries. <i>Science Advances</i> , 2020 , 6, eaba6505	14.3	15
207	Completing the Great Unfinished Symphony of Cancer Together: The Importance of Immigrants in Cancer Research. <i>Cancer Cell</i> , 2020 , 38, 301-305	24.3	
206	YAP and TAZ regulate cell volume. <i>Journal of Cell Biology</i> , 2019 , 218, 3472-3488	7.3	16
205	Enabling migration by moderation: YAP/TAZ are essential for persistent migration. <i>Journal of Cell Biology</i> , 2019 , 218, 1092-1093	7.3	4
204	Recapitulation of molecular regulators of nuclear motion during cell migration. <i>Cell Adhesion and Migration</i> , 2019 , 13, 50-62	3.2	14
203	Solid Stress in Brain Tumors. <i>Trends in Cancer</i> , 2019 , 5, 266-268	12.5	
202	Dissecting cellular mechanics: Implications for aging, cancer, and immunity. <i>Seminars in Cell and Developmental Biology</i> , 2019 , 93, 16-25	7.5	11
201	Immunolabeling of Cleared Human Pancreata Provides Insights into Three-Dimensional Pancreatic Anatomy and Pathology. <i>American Journal of Pathology</i> , 2018 , 188, 1530-1535	5.8	22
200	Inhibition of ovarian tumor cell invasiveness by targeting SYK in the tyrosine kinase signaling pathway. <i>Oncogene</i> , 2018 , 37, 3778-3789	9.2	15
199	Role of membrane-tension gated Ca flux in cell mechanosensation. <i>Journal of Cell Science</i> , 2018 , 131,	5.3	23
198	EB1 and cytoplasmic dynein mediate protrusion dynamics for efficient 3-dimensional cell migration. <i>FASEB Journal</i> , 2018 , 32, 1207-1221	0.9	14
197	Multi-nucleated cells use ROS to induce breast cancer chemo-resistance in vitro and in vivo. <i>Oncogene</i> , 2018 , 37, 4546-4561	9.2	40
196	Cell tension and mechanical regulation of cell volume. <i>Molecular Biology of the Cell</i> , 2018 , 29, 0	3.5	30
195	A comparison of methods to assess cell mechanical properties. <i>Nature Methods</i> , 2018 , 15, 491-498	21.6	265
194	Tumor cell density regulates matrix metalloproteinases for enhanced migration. <i>Oncotarget</i> , 2018 , 9, 32556-32569	3.3	15
193	Mechanics of the Cell Nucleus. <i>Advances in Experimental Medicine and Biology</i> , 2018 , 1092, 41-55	3.6	10
192	Metabolic and Mechanical Cues Regulating Pluripotent Stem Cell Fate. <i>Trends in Cell Biology</i> , 2018 , 28, 1014-1029	18.3	29
191	The Biophysics of 3D Cell Migration. <i>Annual Review of Biophysics</i> , 2018 , 47, 549-567	21.1	25

190	Transient Opening of the Mitochondrial Permeability Transition Pore Induces Microdomain Calcium Transients in Astrocyte Processes. <i>Neuron</i> , 2017 , 93, 587-605.e7	13.9	220
189	Hypoxia Selectively Enhances Integrin β Receptor Expression in Breast Cancer to Promote Metastasis. <i>Molecular Cancer Research</i> , 2017 , 15, 723-734	6.6	71
188	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	11.5	105
187	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	4.1	6
186	Synergistic IL-6 and IL-8 paracrine signalling pathway infers a strategy to inhibit tumour cell migration. <i>Nature Communications</i> , 2017 , 8, 15584	17.4	87
185	Pluri-IQ: Quantification of Embryonic Stem Cell Pluripotency through an Image-Based Analysis Software. <i>Stem Cell Reports</i> , 2017 , 9, 697-709	8	13
184	Nuclear lamin A/C harnesses the perinuclear apical actin cables to protect nuclear morphology. <i>Nature Communications</i> , 2017 , 8, 2123	17.4	81
183	Going with the Flow: Water Flux and Cell Shape during Cytokinesis. <i>Biophysical Journal</i> , 2017 , 113, 2487-2495	10	10
182	Mammalian Cell Division in 3D Matrices via Quantitative Confocal Reflection Microscopy. <i>Journal of Visualized Experiments</i> , 2017 ,	1.6	4
181	Cancer Protrusions on a Tighrope: Nanofiber Curvature Contrast Quantitates Single Protrusion Dynamics. <i>ACS Nano</i> , 2017 , 11, 12037-12048	16.7	20
180	Biophysical and biomolecular determination of cellular age in humans. <i>Nature Biomedical Engineering</i> , 2017 , 1,	19	44
179	Loss of giant obscurins alters breast epithelial cell mechanosensing of matrix stiffness. <i>Oncotarget</i> , 2017 , 8, 54004-54020	3.3	14
178	Isomeric control of the mechanical properties of supramolecular filament hydrogels. <i>Biomaterials Science</i> , 2017 , 6, 216-224	7.4	6
177	Engineered Models of Confined Cell Migration. <i>Annual Review of Biomedical Engineering</i> , 2016 , 18, 159-802	75	75
176	A robust nonlinear tissue-component discrimination method for computational pathology. <i>Laboratory Investigation</i> , 2016 , 96, 450-8	5.9	6
175	Biophysical changes reduce energetic demand in growth factor-deprived lymphocytes. <i>Journal of Cell Biology</i> , 2016 , 212, 439-47	7.3	16
174	Differential vesicular sorting of AMPA and GABAA receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E922-31	11.5	37
173	Local 3D matrix confinement determines division axis through cell shape. <i>Oncotarget</i> , 2016 , 7, 6994-7013	3.3	13

172	Confinement Sensing and Signal Optimization via Piezo1/PKA and Myosin II Pathways. <i>Cell Reports</i> , 2016 , 15, 1430-1441	10.6	86
171	Statistical analysis of cell migration in 3D using the anisotropic persistent random walk model. <i>Nature Protocols</i> , 2015 , 10, 517-27	18.8	63
170	Inhibition of Spleen Tyrosine Kinase Potentiates Paclitaxel-Induced Cytotoxicity in Ovarian Cancer Cells by Stabilizing Microtubules. <i>Cancer Cell</i> , 2015 , 28, 82-96	24.3	96
169	Volume regulation and shape bifurcation in the cell nucleus. <i>Journal of Cell Science</i> , 2015 , 128, 3375-85	5.3	67
168	COX-2 dependent regulation of mechanotransduction in human breast cancer cells. <i>Cancer Biology and Therapy</i> , 2015 , 16, 430-7	4.6	17
167	Multiple scale model for cell migration in monolayers: Elastic mismatch between cells enhances motility. <i>Scientific Reports</i> , 2015 , 5, 11745	4.9	46
166	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	4.9	132
165	Collective cancer cell invasion induced by coordinated contractile stresses. <i>Oncotarget</i> , 2015 , 6, 43438-51	3.3	46
164	The Mechanobiology of Aging. <i>Annual Review of Biomedical Engineering</i> , 2015 , 17, 113-141	12	120
163	Cytoskeletal tension induces the polarized architecture of the nucleus. <i>Biomaterials</i> , 2015 , 48, 161-72	15.6	91
162	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, 24842-55	3.3	9
161	Normal mammary epithelial cells promote carcinoma basement membrane invasion by inducing microtubule-rich protrusions. <i>Oncotarget</i> , 2015 , 6, 32634-45	3.3	10
160	Senescent stromal cells induce cancer cell migration via inhibition of RhoA/ROCK/myosin-based cell contractility. <i>Oncotarget</i> , 2015 , 6, 30516-31	3.3	20
159	Evolution of cellular morpho-phenotypes in cancer metastasis. <i>Scientific Reports</i> , 2015 , 5, 18437	4.9	45
158	Water permeation drives tumor cell migration in confined microenvironments. <i>Cell</i> , 2014 , 157, 611-23	56.2	299
157	Hypoxia and the extracellular matrix: drivers of tumour metastasis. <i>Nature Reviews Cancer</i> , 2014 , 14, 430-9	31.3	785
156	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	11.5	139
155	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, 3949-54	11.5	197

154	Nuclear envelope in nuclear positioning and cell migration. <i>Advances in Experimental Medicine and Biology</i> , 2014 , 773, 471-90	3.6	22
153	Switching from protease-independent to protease-dependent cancer cell invasion. <i>Biophysical Journal</i> , 2014 , 107, 2484-5	2.9	3
152	Morphological effects on expression of growth differentiation factor 15 (GDF15), a marker of metastasis. <i>Journal of Cellular Physiology</i> , 2014 , 229, 362-73	7	26
151	Tight coupling between nucleus and cell migration through the perinuclear actin cap. <i>Journal of Cell Science</i> , 2014 , 127, 2528-41	5.3	83
150	The Arp2/3 complex mediates multigeneration dendritic protrusions for efficient 3-dimensional cancer cell migration. <i>FASEB Journal</i> , 2013 , 27, 4089-99	0.9	51
149	Functional interplay between the cell cycle and cell phenotypes. <i>Integrative Biology (United Kingdom)</i> , 2013 , 5, 523-34	3.7	21
148	Focal adhesion size uniquely predicts cell migration. <i>FASEB Journal</i> , 2013 , 27, 1351-61	0.9	215
147	E-catenin serves as a clutch between low and high intercellular E-cadherin bond strengths. <i>Biophysical Journal</i> , 2013 , 105, 2289-300	2.9	9
146	Dimensional control of cancer cell migration. <i>Biophysical Journal</i> , 2013 , 104, 279-80	2.9	20
145	Modulation of keratocyte phenotype by collagen fibril nanoarchitecture in membranes for corneal repair. <i>Biomaterials</i> , 2013 , 34, 9365-72	15.6	35
144	Interstitial friction greatly impacts membrane mechanics. <i>Biophysical Journal</i> , 2013 , 104, 1217-8	2.9	1
143	The multi-faceted role of the actin cap in cellular mechanosensation and mechanotransduction. <i>Soft Matter</i> , 2013 , 9, 5516-5523	3.6	53
142	Simultaneously defining cell phenotypes, cell cycle, and chromatin modifications at single-cell resolution. <i>FASEB Journal</i> , 2013 , 27, 2667-76	0.9	23
141	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, 10819-29	5.4	309
140	High-throughput secretomic analysis of single cells to assess functional cellular heterogeneity. <i>Analytical Chemistry</i> , 2013 , 85, 2548-56	7.8	122
139	Predicting how cells spread and migrate: focal adhesion size does matter. <i>Cell Adhesion and Migration</i> , 2013 , 7, 293-6	3.2	41
138	Age-dependent stochastic models for understanding population fluctuations in continuously cultured cells. <i>Journal of the Royal Society Interface</i> , 2013 , 10, 20130325	4.1	33
137	Procollagen lysyl hydroxylase 2 is essential for hypoxia-induced breast cancer metastasis. <i>Molecular Cancer Research</i> , 2013 , 11, 456-66	6.6	175

136	Collagen prolyl hydroxylases are essential for breast cancer metastasis. <i>Cancer Research</i> , 2013 , 73, 3285-3291	10.1	198
135	A physical sciences network characterization of non-tumorigenic and metastatic cells. <i>Scientific Reports</i> , 2013 , 3, 1449	4.9	113
134	Adhesion and fusion efficiencies of human immunodeficiency virus type 1 (HIV-1) surface proteins. <i>Scientific Reports</i> , 2013 , 3, 3014	4.9	11
133	The LINC-anchored actin cap connects the extracellular milieu to the nucleus for ultrafast mechanotransduction. <i>Scientific Reports</i> , 2013 , 3, 1087	4.9	125
132	Form-finding model shows how cytoskeleton network stiffness is realized. <i>PLoS ONE</i> , 2013 , 8, e77417	3.7	7
131	Dimensional and temporal controls of three-dimensional cell migration by zyxin and binding partners. <i>Nature Communications</i> , 2012 , 3, 719	17.4	73
130	Mismatch in mechanical and adhesive properties induces pulsating cancer cell migration in epithelial monolayer. <i>Biophysical Journal</i> , 2012 , 102, 2731-41	2.9	66
129	Distinct kinetic and molecular requirements govern CD44 binding to hyaluronan versus fibrin(ogen). <i>Biophysical Journal</i> , 2012 , 103, 415-423	2.9	19
128	High-throughput ballistic injection nanorheology to measure cell mechanics. <i>Nature Protocols</i> , 2012 , 7, 155-70	18.8	39
127	The differential formation of the LINC-mediated perinuclear actin cap in pluripotent and somatic cells. <i>PLoS ONE</i> , 2012 , 7, e36689	3.7	44
126	Divergent roles of CD44 and carcinoembryonic antigen in colon cancer metastasis. <i>FASEB Journal</i> , 2012 , 26, 2648-56	0.9	39
125	The distinct roles of the nucleus and nucleus-cytoskeleton connections in three-dimensional cell migration. <i>Scientific Reports</i> , 2012 , 2, 488	4.9	116
124	NAC1 is an actin-binding protein that is essential for effective cytokinesis in cancer cells. <i>Cancer Research</i> , 2012 , 72, 4085-96	10.1	24
123	Actin cap associated focal adhesions and their distinct role in cellular mechanosensing. <i>Scientific Reports</i> , 2012 , 2, 555	4.9	132
122	Magnetic manipulation of nanorods in the nucleus of living cells. <i>Biophysical Journal</i> , 2011 , 101, 1880-6	2.9	48
121	Nucleation and decay initiation are the stiffness-sensitive phases of focal adhesion maturation. <i>Biophysical Journal</i> , 2011 , 101, 2919-28	2.9	31
120	Reply: reducing background fluorescence reveals adhesions in 3D matrices. <i>Nature Cell Biology</i> , 2011 , 13, 5-7	23.4	49
119	The physics of cancer: the role of physical interactions and mechanical forces in metastasis. <i>Nature Reviews Cancer</i> , 2011 , 11, 512-22	31.3	814

118	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, 16369-74	11.5	296
117	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, 1903-10	5.3	29
116	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, 4267-85	5.3	32
115	Recapitulating cancer cell invasion in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 6693-4	11.5	9
114	Single-Molecule Analysis of Cell-Virus Binding Interactions 2011 , 153-166		
113	Intra- and Extracellular Microrheology of Endothelial Cells in a 3D Matrix 2011 , 69-87		0
112	Cross-linking FtsZ polymers into coherent Z rings. <i>Molecular Microbiology</i> , 2010 , 78, 651-68	4.1	68
111	A distinctive role for focal adhesion proteins in three-dimensional cell motility. <i>Nature Cell Biology</i> , 2010 , 12, 598-604	23.4	440
110	Triggering cell detachment from patterned electrode arrays by programmed subcellular release. <i>Nature Protocols</i> , 2010 , 5, 1273-80	18.8	15
109	Dynamics of the bacterial intermediate filament crescentin in vitro and in vivo. <i>PLoS ONE</i> , 2010 , 5, e88553,7		17
108	Organization of cellular receptors into a nanoscale junction during HIV-1 adhesion. <i>PLoS Computational Biology</i> , 2010 , 6, e1000855	5	15
107	The perinuclear actin cap in health and disease. <i>Nucleus</i> , 2010 , 1, 337-42	3.9	52
106	Interplay of RhoA and motility in the programmed spreading of daughter cells postmitosis. <i>Biophysical Journal</i> , 2010 , 99, 3526-34	2.9	9
105	Differences in the microrheology of human embryonic stem cells and human induced pluripotent stem cells. <i>Biophysical Journal</i> , 2010 , 99, 3563-70	2.9	31
104	PEG-based hydrogels with collagen mimetic peptide-mediated and tunable physical cross-links. <i>Biomacromolecules</i> , 2010 , 11, 2336-44	6.9	74
103	Torsional mechanics of DNA are regulated by small-molecule intercalation. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 16929-35	3.4	33
102	Alpha-actinin and filamin cooperatively enhance the stiffness of actin filament networks. <i>PLoS ONE</i> , 2009 , 4, e4411	3.7	50
101	Resolving the role of acto-myosin contractility in cell microrheology. <i>PLoS ONE</i> , 2009 , 4, e7054	3.7	48

100	A perinuclear actin cap regulates nuclear shape. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 19017-22	11.5	413
99	Condensation of FtsZ filaments can drive bacterial cell division. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 121-6	11.5	118
98	Loss of alpha-catenin decreases the strength of single E-cadherin bonds between human cancer cells. <i>Journal of Biological Chemistry</i> , 2009 , 284, 18252-9	5.4	49
97	Asymmetric enrichment of PIE-1 in the <i>Caenorhabditis elegans</i> zygote mediated by binary counterdiffusion. <i>Journal of Cell Biology</i> , 2009 , 184, 473-9	7.3	43
96	Programmed subcellular release for studying the dynamics of cell detachment. <i>Nature Methods</i> , 2009 , 6, 211-3	21.6	39
95	Micro- and macrorheology of mucus. <i>Advanced Drug Delivery Reviews</i> , 2009 , 61, 86-100	18.5	690
94	Magnetic tweezers measurement of single molecule torque. <i>Nano Letters</i> , 2009 , 9, 1720-5	11.5	97
93	Particle-tracking microrheology of living cells: principles and applications. <i>Annual Review of Biophysics</i> , 2009 , 38, 301-26	21.1	436
92	Exploiting Nucleation and Growth in the Synthesis and Electrical Passivation of CdSe Quantum Dots. <i>Science of Advanced Materials</i> , 2009 , 1, 93-100	2.3	8
91	Altering mucus rheology to "solidify" human mucus at the nanoscale. <i>PLoS ONE</i> , 2009 , 4, e4294	3.7	99
90	Structural requirements for the assembly of LINC complexes and their function in cellular mechanical stiffness. <i>Experimental Cell Research</i> , 2008 , 314, 1892-905	4.2	207
89	MinC spatially controls bacterial cytokinesis by antagonizing the scaffolding function of FtsZ. <i>Current Biology</i> , 2008 , 18, 235-44	6.3	171
88	Chapter 15: Live-cell single-molecule force spectroscopy. <i>Methods in Cell Biology</i> , 2008 , 89, 411-32	1.8	16
87	Mapping local matrix remodeling induced by a migrating tumor cell using three-dimensional multiple-particle tracking. <i>Biophysical Journal</i> , 2008 , 95, 4077-88	2.9	118
86	Polymerization and bundling kinetics of FtsZ filaments. <i>Biophysical Journal</i> , 2008 , 95, 4045-56	2.9	51
85	{alpha}-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, 18331-6	11.5	57
84	The filamentous actin cross-linking/bundling activity of mammalian formins. <i>Journal of Molecular Biology</i> , 2008 , 384, 324-34	6.5	46
83	Dysfunctional connections between the nucleus and the actin and microtubule networks in laminopathic models. <i>Biophysical Journal</i> , 2008 , 95, 5462-75	2.9	157

82	Fibronectin fibrillogenesis regulates three-dimensional neovessel formation. <i>Genes and Development</i> , 2008 , 22, 1231-43	12.6	164
81	Monitoring early fusion dynamics of human immunodeficiency virus type 1 at single-molecule resolution. <i>Journal of Virology</i> , 2008 , 82, 7022-33	6.6	44
80	Chapter 18: Sensing cytoskeletal mechanics by ballistic intracellular nanorheology (BIN) coupled with cell transfection. <i>Methods in Cell Biology</i> , 2008 , 89, 467-86	1.8	2
79	Nuclear lamin A/C deficiency induces defects in cell mechanics, polarization, and migration. <i>Biophysical Journal</i> , 2007 , 93, 2542-52	2.9	238
78	Micro-heterogeneity and micro-rheological properties of high-viscosity oat β -glucan solutions. <i>Food Chemistry</i> , 2007 , 103, 1192-1198	8.5	12
77	Probing cellular mechanical responses to stimuli using ballistic intracellular nanorheology. <i>Methods in Cell Biology</i> , 2007 , 83, 115-40	1.8	19
76	GTPase activity, structure, and mechanical properties of filaments assembled from bacterial cytoskeleton protein MreB. <i>Journal of Bacteriology</i> , 2006 , 188, 968-76	3.5	55
75	A direct interaction between actin and vimentin filaments mediated by the tail domain of vimentin. <i>Journal of Biological Chemistry</i> , 2006 , 281, 30393-9	5.4	116
74	Single-molecule analysis of cadherin-mediated cell-cell adhesion. <i>Journal of Cell Science</i> , 2006 , 119, 66-74	5.3	179
73	Ballistic intracellular nanorheology reveals ROCK-hard cytoplasmic stiffening response to fluid flow. <i>Journal of Cell Science</i> , 2006 , 119, 1760-8	5.3	90
72	Mechanics and dynamics of actin-driven thin membrane protrusions. <i>Biophysical Journal</i> , 2006 , 90, 65-76	2.9	139
71	Mechanics of enveloped virus entry into host cells. <i>Biophysical Journal</i> , 2006 , 90, L10-2	2.9	66
70	Probing single-cell micromechanics in vivo: the microrheology of <i>C. elegans</i> developing embryos. <i>Biophysical Journal</i> , 2006 , 90, 4712-9	2.9	135
69	Microrheology and ROCK signaling of human endothelial cells embedded in a 3D matrix. <i>Biophysical Journal</i> , 2006 , 91, 3499-507	2.9	83
68	Probing intercellular interactions between vascular endothelial cadherin pairs at single-molecule resolution and in living cells. <i>Journal of Molecular Biology</i> , 2006 , 358, 665-74	6.5	46
67	The rapid onset of elasticity during the assembly of the bacterial cell-division protein FtsZ. <i>Biochemical and Biophysical Research Communications</i> , 2005 , 333, 508-16	3.4	12
66	How actin crosslinking and bundling proteins cooperate to generate an enhanced cell mechanical response. <i>Biochemical and Biophysical Research Communications</i> , 2005 , 334, 183-92	3.4	91
65	Cell migration without a lamellipodium: translation of actin dynamics into cell movement mediated by tropomyosin. <i>Journal of Cell Biology</i> , 2005 , 168, 619-31	7.3	236

64	Morphology of the lamellipodium and organization of actin filaments at the leading edge of crawling cells. <i>Biophysical Journal</i> , 2005 , 89, 3589-602	2.9	72
63	Single-molecule analysis of human immunodeficiency virus type 1 gp120-receptor interactions in living cells. <i>Journal of Virology</i> , 2005 , 79, 14748-55	6.6	64
62	Intracellular mechanics of migrating fibroblasts. <i>Molecular Biology of the Cell</i> , 2005 , 16, 328-38	3.5	145
61	The assembly of MreB, a prokaryotic homolog of actin. <i>Journal of Biological Chemistry</i> , 2005 , 280, 2628-354	3.4	95
60	Cdc42 mediates nucleus movement and MTOC polarization in Swiss 3T3 fibroblasts under mechanical shear stress. <i>Molecular Biology of the Cell</i> , 2005 , 16, 871-80	3.5	78
59	Real-time intracellular transport of gene nanocarriers studied by multiple particle tracking. <i>Biotechnology Progress</i> , 2004 , 20, 598-602	2.8	66
58	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	2.4	26
57	Dendritic branching and homogenization of actin networks mediated by arp2/3 complex. <i>Physical Review Letters</i> , 2004 , 93, 258104	7.4	23
56	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	1.8	28
55	Micro-organization and visco-elasticity of the interphase nucleus revealed by particle nanotracking. <i>Journal of Cell Science</i> , 2004 , 117, 2159-67	5.3	208
54	Distinct kinetic and mechanical properties govern selectin-leukocyte interactions. <i>Journal of Cell Science</i> , 2004 , 117, 2503-11	5.3	100
53	Rho kinase regulates the intracellular micromechanical response of adherent cells to rho activation. <i>Molecular Biology of the Cell</i> , 2004 , 15, 3475-84	3.5	77
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