Daniel J Muller

List of Publications by Year
in descending order

279	23,972	4942 84	10708 138
papers	citations	h-index	g-index

286	286	286	20006
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	<scp>GSDMD</scp> membrane pore formation constitutes the mechanism of pyroptotic cell death. EMBO Journal, 2016, 35, 1766-1778.	3.5	842
2	Imaging modes of atomic force microscopy for application in molecular and cell biology. Nature Nanotechnology, 2017, 12, 295-307.	15.6	699
3	Atomic force microscopy as a multifunctional molecular toolbox in nanobiotechnology. Nature Nanotechnology, 2008, 3, 261-269.	15.6	678
4	Hydrostatic pressure and the actomyosin cortex drive mitotic cell rounding. Nature, 2011, 469, 226-230.	13.7	576
5	Observing single biomolecules at work with the atomic force microscope. , 2000, 7, 715-718.		506
6	Atomic force microscopy-based mechanobiology. Nature Reviews Physics, 2019, 1, 41-57.	11.9	500
7	Proton-powered turbine of a plant motor. Nature, 2000, 405, 418-419.	13.7	478
8	Single-cell force spectroscopy. Journal of Cell Science, 2008, 121, 1785-1791.	1.2	443
9	Force probing surfaces of living cells to molecular resolution. Nature Chemical Biology, 2009, 5, 383-390.	3.9	430
10	Multiparametric imaging of biological systems by force-distance curveâ€“based AFM. Nature Methods, 2013, 10, 847-854.	9.0	378
11	Imaging and manipulation of biological structures with the AFM. Micron, 2002, 33, 385-397.	1.1	364
12	Electrostatically Balanced Subnanometer Imaging of Biological Specimens by Atomic Force Microscope. Biophysical Journal, 1999, 76, 1101-1111.	0.2	349
13	Atomic force microscopy: a nanoscopic window on the cell surface. Trends in Cell Biology, 2011, 21, 461-469.	3.6	329
14	Adsorption of Biological Molecules to a Solid Support for Scanning Probe Microscopy. Journal of Structural Biology, 1997, 119, 172-188.	1.3	293
15	Neuronal uptake and propagation of a rare phosphorylated high-molecular-weight tau derived from Alzheimerâ€™s disease brain. Nature Communications, 2015, 6, 8490.	5.8	283
16	Tapping-Mode Atomic Force Microscopy Produces Faithful High-Resolution Images of Protein Surfaces. Biophysical Journal, 1999, 77, 1150-1158.	0.2	256
17	Structure of the rhodopsin dimer: a working model for G-protein-coupled receptors. Current Opinion in Structural Biology, 2006, 16, 252-259.	2.6	253
18	Control of Directed Cell Migration In Vivo by Membrane-to-Cortex Attachment. PLoS Biology, 2010, 8, e1000544.	2.6	231

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19	AFM: A Nanotool in Membrane Biology. Biochemistry, 2008, 47, 7986-7998.	1.2	227
20	A new technical approach to quantify cellâ€“cell adhesion forces by AFM. Ultramicroscopy, 2006, 106, 637-644.	0.8	225
21	Conformational changes in surface structures of isolated connexin 26 gap junctions. EMBO Journal, 2002, 21, 3598-3607.	3.5	221
22	Voltage and pH-induced channel closure of porin OmpF visualized by atomic force microscopy 1 1Edited by W. Baumeister. Journal of Molecular Biology, 1999, 285, 1347-1351.	2.0	220
23	Atomic force microscopy and spectroscopy of native membrane proteins. Nature Protocols, 2007, 2, 2191-2197.	5.5	214
24	Kindlin-2 cooperates with talin to activate integrins and induces cell spreading by directly binding paxillin. ELife, 2016, 5, e10130.	2.8	213
25	Assembly of collagen into microribbons: effects of pH and electrolytes. Journal of Structural Biology, 2004, 148, 268-278.	1.3	208
26	Force-induced conformational change of bacteriorhodopsin. Journal of Molecular Biology, 1995, 249, 239-243.	2.0	188
27	Revealing Early Steps of Î±2Î²1 Integrin-mediated Adhesion to Collagen Type I by Using Single-Cell Force Spectroscopy. Molecular Biology of the Cell, 2007, 18, 1634-1644.	0.9	188
28	Bacterial Na + â€ATP synthase has an undecameric rotor. EMBO Reports, 2001, 2, 229-233.	2.0	185
29	Straight GDP-Tubulin Protofilaments Form in the Presence of Taxol. Current Biology, 2007, 17, 1765-1770.	1.8	179
30	Mechanism of membrane pore formation by human gasderminâ€Đ. EMBO Journal, 2018, 37, .	3.5	178
31	The c 15 ring of the Spirulina platensis Fâ€ATP synthase: F 1 /F 0 symmetry mismatch is not obligatory. EMBO Reports, 2005, 6, 1040-1044.	2.0	173
32	Quantifying cellular adhesion to extracellular matrix components by single-cell force spectroscopy. Nature Protocols, 2010, 5, 1353-1361.	5.5	172
33	Nanomechanical mapping of first binding steps of a virus to animal cells. Nature Nanotechnology, 2017, 12, 177-183.	15.6	170
34	High resolution imaging of native biological sample surfaces using scanning probe microscopy. Current Opinion in Structural Biology, 1997, 7, 279-284.	2.6	163
35	Stability of Bacteriorhodopsin Î±-Helices and Loops Analyzed by Single-Molecule Force Spectroscopy. Biophysical Journal, 2002, 83, 3578-3588.	0.2	163
36	Measuring cell adhesion forces of primary gastrulating cells from zebrafish using atomic force microscopy. Journal of Cell Science, 2005, 118, 4199-4206.	1.2	161

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37	A practical guide to quantify cell adhesion using single-cell force spectroscopy. Methods, 2013, 60, 169-178.	1.9	161
38	From Images to Interactions: High-Resolution Phase Imaging in Tapping-Mode Atomic Force Microscopy. Biophysical Journal, 2001, 80, 3009-3018.	0.2	160
39	Observing structure, function and assembly of single proteins by AFM. Progress in Biophysics and Molecular Biology, 2002, 79, 1-43.	1.4	155
40	Five challenges to bringing single-molecule force spectroscopy into living cells. Nature Methods, 2011, 8, 123-127.	9.0	155
41	Quantification of surface tension and internal pressure generated by single mitotic cells. Scientific Reports, 2014, 4, 6213.	1.6	151
42	A glucose-starvation response regulates the diffusion of macromolecules. ELife, 2016, 5, .	2.8	151
43	Surface Tongue-and-groove Contours on Lens MIP Facilitate Cell-to-cell Adherence. Journal of Molecular Biology, 2000, 300, 779-789.	2.0	149
44	The fuzzy coat of pathological human Tau fibrils is a two-layered polyelectrolyte brush. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E313-21.	3.3	148
45	Observing growth steps of collagen self-assembly by time-lapse high-resolution atomic force microscopy. Journal of Structural Biology, 2006, 154, 232-245.	1.3	145
46	Atomic force microscopy-based characterization and design of biointerfaces. Nature Reviews Materials, 2017, 2, .	23.3	145
47	Surface structures of native bacteriorhodopsin depend on the molecular packing arrangement in the membrane 1 1Edited by W. Baumeister. Journal of Molecular Biology, 1999, 285, 1903-1909.	2.0	142
48	Cholesterol increases kinetic, energetic, and mechanical stability of the human Î2 ₂ -adrenergic receptor. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3463-72.	3.3	142
49	Oligomer Formation of Tau Protein Hyperphosphorylated in Cells. Journal of Biological Chemistry, 2014, 289, 34389-34407.	1.6	132
50	Cdk1-dependent mitotic enrichment of cortical myosinÂII promotes cell rounding against confinement. Nature Cell Biology, 2015, 17, 148-159.	4.6	131
51	Analyzing focal adhesion structure by atomic force microscopy. Journal of Cell Science, 2005, 118, 5315-5323.	1.2	129
52	Deciphering Molecular Interactions of Native Membrane Proteins by Single-Molecule Force Spectroscopy. Annual Review of Biophysics and Biomolecular Structure, 2007, 36, 233-260.	18.3	124
53	Electrostatic Cell-Surface Repulsion Initiates Lumen Formation in Developing Blood Vessels. Current Biology, 2010, 20, 2003-2009.	1.8	124
54	Atomic force microscopy of native purple membrane. Biochimica Et Biophysica Acta - Bioenergetics, 2000, 1460, 27-38.	0.5	121

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55	The effect of unlocking RGD-motifs in collagen I on pre-osteoblast adhesion and differentiation. Biomaterials, 2010, 31, 2827-2835.	5.7	121
56	Rheology of the Active Cell Cortex in Mitosis. Biophysical Journal, 2016, 111, 589-600.	0.2	119
57	High-resolution atomic force microscopy and spectroscopy of native membrane proteins. Reports on Progress in Physics, 2011, 74, 086601.	8.1	118
58	Mechanism of allosteric regulation of Î²2-adrenergic receptor by cholesterol. ELife, 2016, 5, .	2.8	115
59	Unfolding pathways of native bacteriorhodopsin depend on temperature. EMBO Journal, 2003, 22, 5220-5229.	3.5	111
60	Hydrodynamic effects in fast AFM single-molecule force measurements. European Biophysics Journal, 2005, 34, 91-96.	1.2	111
61	Movement Directionality in Collective Migration of Germ Layer Progenitors. Current Biology, 2010, 20, 161-169.	1.8	111
62	Fibronectin-bound Î±5Î²1 integrins sense load and signal to reinforce adhesion in less than a second. Nature Materials, 2017, 16, 1262-1270.	13.3	109
63	Atomic Force Microscopy-Based Force Spectroscopy and Multiparametric Imaging of Biomolecular and Cellular Systems. Chemical Reviews, 2021, 121, 11701-11725.	23.0	109
64	Impact of holdase chaperones Skp and SurA on the folding of Î²-barrel outer-membrane proteins. Nature Structural and Molecular Biology, 2015, 22, 795-802.	3.6	108
65	Mapping flexible protein domains at subnanometer resolution with the atomic force microscope. FEBS Letters, 1998, 430, 105-111.	1.3	107
66	The Oligomeric State of c Rings from Cyanobacterial F-ATP Synthases Varies from 13 to 15. Journal of Bacteriology, 2007, 189, 5895-5902.	1.0	106
67	Imaging G proteinâ€"coupled receptors while quantifying their ligand-binding free-energy landscape. Nature Methods, 2015, 12, 845-851.	9.0	106
68	Cellular Remodelling of Individual Collagen Fibrils Visualized by Time-lapse AFM. Journal of Molecular Biology, 2007, 372, 594-607.	2.0	105
69	Scanning probe microscopy. Nature Reviews Methods Primers, 2021, 1, .	11.8	103
70	Single-molecule studies of membrane proteins. Current Opinion in Structural Biology, 2006, 16, 489-495.	2.6	102
71	Mechanical Stimulation of Piezo1 Receptors Depends on Extracellular Matrix Proteins and Directionality of Force. Nano Letters, 2017, 17, 2064-2072.	4.5	100
72	Inertial picobalance reveals fast mass fluctuations in mammalian cells. Nature, 2017, 550, 500-505.	13.7	100

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73	Controlled Unfolding and Refolding of a Single Sodium-proton Antiporter using Atomic Force Microscopy. Journal of Molecular Biology, 2004, 340, 1143-1152.	2.0	99
74	Folding and Assembly of Proteorhodopsin. Journal of Molecular Biology, 2008, 376, 35-41.	2.0	96
75	Human Tau Isoforms Assemble into Ribbon-like Fibrils That Display Polymorphic Structure and Stability. Journal of Biological Chemistry, 2010, 285, 27302-27313.	1.6	96
76	Multiparametric high-resolution imaging of native proteins by force-distance curveâ€"based AFM. Nature Protocols, 2014, 9, 1113-1130.	5.5	95
77	Atomic force microscopy: A forceful way with single molecules. Current Biology, 1999, 9, R133-R136.	1.8	94
78	Surface Topographies at Subnanometer-resolution Reveal Asymmetry and Sidedness of Aquaporin-1. Journal of Molecular Biology, 1996, 264, 907-918.	2.0	93
79	Characterizing Molecular Interactions in Different Bacteriorhodopsin Assemblies by Single-molecule Force Spectroscopy. Journal of Molecular Biology, 2006, 355, 640-650.	2.0	93
80	Bacteriorhodopsin Folds into the Membrane against an External Force. Journal of Molecular Biology, 2006, 357, 644-654.	2.0	93
81	Vertebrate Membrane Proteins: Structure, Function, and Insights from Biophysical Approaches. Pharmacological Reviews, 2008, 60, 43-78.	7.1	92
82	Î±V-class integrins exert dual roles on Î±5Î²1 integrins to strengthen adhesion to fibronectin. Nature Communications, 2017, 8, 14348.	5.8	92
83	Imaging the Electrostatic Potential of Transmembrane Channels: Atomic Probe Microscopy of OmpF Porin. Biophysical Journal, 2002, 82, 1667-1676.	0.2	90
84	Imaging and Quantifying Chemical and Physical Properties of Native Proteins at Molecular Resolution by Forceâ€"Volume AFM. Angewandte Chemie - International Edition, 2011, 50, 12103-12108.	7.2	90
85	Engineering rotor ring stoichiometries in the ATP synthase. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1599-608.	3.3	89
86	Fourteen Protomers Compose the Oligomer III of the Proton-rotor in Spinach Chloroplast ATP Synthase. Journal of Molecular Biology, 2003, 333, 337-344.	2.0	88
87	Ligand-Specific Interactions Modulate Kinetic, Energetic, and Mechanical Properties of the Human Î²2 Adrenergic Receptor. Structure, 2012, 20, 1391-1402.	1.6	87
88	Galectin-3 Regulates Integrin Î±2Î²1-mediated Adhesion to Collagen-I and -IV. Journal of Biological Chemistry, 2008, 283, 32264-32272.	1.6	86
89	Locating ligand binding and activation of a single antiporter. EMBO Reports, 2005, 6, 668-674.	2.0	85
90	Probing the Energy Landscape of the Membrane Protein Bacteriorhodopsin. Structure, 2004, 12, 871-879.	1.6	80

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91	Structural Changes in Native Membrane Proteins Monitored at Subnanometer Resolution with the Atomic Force Microscope: A Review. Journal of Structural Biology, 1997, 119, 149-157.	1.3	79
92	The c13 Ring from a Thermoalkaliphilic ATP Synthase Reveals an Extended Diameter Due to a Special Structural Region. Journal of Molecular Biology, 2009, 388, 611-618.	2.0	79
93	Mitotic cells contract actomyosin cortex and generate pressure to round against or escape epithelial confinement. Nature Communications, 2015, 6, 8872.	5.8	79
94	Observing Membrane Protein Diffusion at Subnanometer Resolution. Journal of Molecular Biology, 2003, 327, 925-930.	2.0	78
95	Stages and Conformations of the Tau Repeat Domain during Aggregation and Its Effect on Neuronal Toxicity. Journal of Biological Chemistry, 2014, 289, 20318-20332.	1.6	77
96	ATP synthase: constrained stoichiometry of the transmembrane rotor. FEBS Letters, 2001, 504, 219-222.	1.3	76
97	Contributions of Galectin-3 and -9 to Epithelial Cell Adhesion Analyzed by Single Cell Force Spectroscopy. Journal of Biological Chemistry, 2007, 282, 29375-29383.	1.6	76
98	Single-Cell Force Spectroscopy, an Emerging Tool to Quantify Cell Adhesion to Biomaterials. Tissue Engineering - Part B: Reviews, 2014, 20, 40-55.	2.5	76
99	Mechanical control of mitotic progression in single animal cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11258-11263.	3.3	76
100	The central plug in the reconstituted undecameric c cylinder of a bacterial ATP synthase consists of phospholipids. FEBS Letters, 2001, 505, 353-356.	1.3	75
101	Membrane perforation by the pore-forming toxin pneumolysin. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13352-13357.	3.3	75
102	Directly Observing the Lipid-Dependent Self-Assembly and Pore-Forming Mechanism of the Cytolytic Toxin Listeriolysin O. Nano Letters, 2015, 15, 6965-6973.	4.5	74
103	Conformational Adaptability of RedÎ² during DNA Annealing and Implications for Its Structural Relationship with Rad52. Journal of Molecular Biology, 2009, 391, 586-598.	2.0	73
104	SAS-6 engineering reveals interdependence between cartwheel and microtubules in determining centrioleÂarchitecture. Nature Cell Biology, 2016, 18, 393-403.	4.6	73
105	Studying Integrin-Mediated Cell Adhesion at the Single-Molecule Level Using AFM Force Spectroscopy. Science's STKE: Signal Transduction Knowledge Environment, 2007, 2007, pl5.	4.1	72
106	New frontiers in atomic force microscopy: analyzing interactions from single-molecules to cells. Current Opinion in Biotechnology, 2009, 20, 4-13.	3.3	72
107	Detecting Molecular Interactions that Stabilize Native Bovine Rhodopsin. Journal of Molecular Biology, 2006, 358, 255-269.	2.0	71
108	Aminosulfonate Modulated pH-induced Conformational Changes in Connexin26 Hemichannels. Journal of Biological Chemistry, 2007, 282, 8895-8904.	1.6	71

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109	Surface analysis of the photosystem I complex by electron and atomic force microscopy. Journal of Molecular Biology, 1998, 283, 83-94.	2.0	70
110	Sampling the conformational space of membrane protein surfaces with the AFM. European Biophysics Journal, 2002, 31, 172-178.	1.2	70
111	A Bond for a Lifetime: Employing Membrane Nanotubes from Living Cells to Determine Receptorâ€"Ligand Kinetics. Angewandte Chemie - International Edition, 2008, 47, 9775-9777.	7.2	70
112	YidC assists the stepwise and stochastic folding of membrane proteins. Nature Chemical Biology, 2016, 12, 911-917.	3.9	70
113	Molecular Force Modulation Spectroscopy Revealing the Dynamic Response of Single Bacteriorhodopsins. Biophysical Journal, 2005, 88, 1423-1431.	0.2	69
114	Multiparametric Atomic Force Microscopy Imaging of Biomolecular and Cellular Systems. Accounts of Chemical Research, 2017, 50, 924-931.	7.6	68
115	Single Proteins Observed by Atomic Force Microscopy. Single Molecules, 2001, 2, 59-67.	1.7	65
116	Creating Ultrathin Nanoscopic Collagen Matrices For Biological And Biotechnological Applications. Small, 2007, 3, 956-963.	5.2	65
117	Force nanoscopy of living cells. Current Biology, 2011, 21, R212-R216.	1.8	65
118	Wedged AFM-cantilevers for parallel plate cell mechanics. Methods, 2013, 60, 186-194.	1.9	65
119	The fibronectin synergy site re-enforces cell adhesion and mediates a crosstalk between integrin classes. ELife, 2017, 6, .	2.8	65
120	Identification and Structure of a Putative Ca2+-binding Domain at the C Terminus of AQP1. Journal of Molecular Biology, 2002, 318, 1381-1394.	2.0	64
121	Determining molecular forces that stabilize human aquaporin-1. Journal of Structural Biology, 2003, 142, 369-378.	1.3	64
122	Identifying and quantifying two ligand-binding sites while imaging native human membrane receptors by AFM. Nature Communications, 2015, 6, 8857.	5.8	64
123	Protein-enriched outer membrane vesicles as a native platform for outer membrane protein studies. Communications Biology, 2018, 1, 23.	2.0	63
124	Stabilizing Effect of Zn2+ in Native Bovine Rhodopsin. Journal of Biological Chemistry, 2007, 282, 11377-11385.	1.6	61
125	Deciphering Teneurin Domains That Facilitate Cellular Recognition, Cellâ€"Cell Adhesion, and Neurite Outgrowth Using Atomic Force Microscopy-Based Single-Cell Force Spectroscopy. Nano Letters, 2013, 13, 2937-2946.	4.5	61
126	Force spectroscopy of single cells using atomic force microscopy. Nature Reviews Methods Primers, 2021, 1, .	11.8	61

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127	Charting the Surfaces of the Purple Membrane. Journal of Structural Biology, 1999, 128, 243-249.	1.3	60
128	Action of the Hsp70 chaperone system observed with single proteins. Nature Communications, 2015, 6, 6307.	5.8	58
129	Combining confocal and atomic force microscopy to quantify single-virus binding to mammalian cell surfaces. Nature Protocols, 2017, 12, 2275-2292.	5.5	58
130	Neurons differentiate magnitude and location of mechanical stimuli. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 848-856.	3.3	58
131	Biomolecular imaging using atomic force microscopy. Trends in Biotechnology, 2002, 20, S45-S49.	4.9	55
132	Probing Origins of Molecular Interactions Stabilizing the Membrane Proteins Halorhodopsin and Bacteriorhodopsin. Structure, 2005, 13, 235-242.	1.6	54
133	Nanomechanical Properties of Proteins and Membranes Depend on Loading Rate and Electrostatic Interactions. ACS Nano, 2013, 7, 2642-2650.	7.3	54
134	Point Mutations in Membrane Proteins Reshape Energy Landscape and Populate Different Unfolding Pathways. Journal of Molecular Biology, 2008, 376, 1076-1090.	2.0	52
135	Genome-scale single-cell mechanical phenotyping reveals disease-related genes involved in mitotic rounding. Nature Communications, 2017, 8, 1266.	5.8	52
136	Structural evidence for a constant c11 ring stoichiometry in the sodium F-ATP synthase. FEBS Journal, 2005, 272, 5474-5483.	2.2	51
137	Transmembrane Helices Have Rough Energy Surfaces. Journal of the American Chemical Society, 2007, 129, 246-247.	6.6	50
138	Preparation techniques for the observation of native biological systems with the atomic force microscope. Biosensors and Bioelectronics, 1997, 12, 867-877.	5.3	49
139	Products of the Parkinson's disease-related glyoxalase DJ-1, D-lactate and glycolate, support mitochondrial membrane potential and neuronal survival. Biology Open, 2014, 3, 777-784.	0.6	49
140	Observing Folding Pathways and Kinetics of a Single Sodium-proton Antiporter from Escherichia coli. Journal of Molecular Biology, 2006, 355, 2-8.	2.0	48
141	Strategies to prepare and characterize native membrane proteins and protein membranes by AFM. Current Opinion in Colloid and Interface Science, 2008, 13, 338-350.	3.4	48
142	An intermediate step in the evolution of ATPases â€“ a hybrid F₀â€“V₀ rotor in a bacterial Na⁺ F₁F₀ ATP synthase. FEBS Journal, 2008, 275, 1999-2007.	2.2	48
143	pH-Induced Conformational Change of the Î²-Barrel-Forming Protein OmpG Reconstituted into Native E. coli Lipids. Journal of Molecular Biology, 2010, 396, 610-616.	2.0	48
144	Localizing Chemical Groups while Imaging Single Native Proteins by High-Resolution Atomic Force Microscopy. Nano Letters, 2014, 14, 2957-2964.	4.5	48

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145	Gating of the MlotiK1 potassium channel involves large rearrangements of the cyclic nucleotide-binding domains. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20802-20807.	3.3	47
146	Single-Molecule Force Spectroscopy from Nanodiscs: An Assay to Quantify Folding, Stability, and Interactions of Native Membrane Proteins. ACS Nano, 2012, 6, 961-971.	7.3	47
147	Out but Not In: The Large Transmembrane Î²-Barrel Protein FhuA Unfolds but Cannot Refold via Î²-Hairpins. Structure, 2012, 20, 2185-2190.	1.6	47
148	Kinetic, Energetic, and Mechanical Differences between Dark-State Rhodopsin and Opsin. Structure, 2013, 21, 426-437.	1.6	47
149	Free Energy of Membrane Protein Unfolding Derived from Single-Molecule Force Measurements. Biophysical Journal, 2007, 93, 930-937.	0.2	45
150	Tracking mechanics and volume of globular cells with atomic force microscopy using a constant-height clamp. Nature Protocols, 2012, 7, 143-154.	5.5	45
151	Isolation and characterization of gap junctions from tissue culture cells 1 1Edited by W. Baumeister. Journal of Molecular Biology, 2002, 315, 587-600.	2.0	44
152	Competing Interactions Stabilize Pro- and Anti-aggregant Conformations of Human Tau. Journal of Biological Chemistry, 2011, 286, 20512-20524.	1.6	44
153	Creating nanoscopic collagen matrices using atomic force microscopy. Microscopy Research and Technique, 2004, 64, 435-440.	1.2	43
154	From Valleys to Ridges: Exploring the Dynamic Energy Landscape of Single Membrane Proteins. ChemPhysChem, 2008, 9, 954-966.	1.0	43
155	Mechanical Properties of Bovine Rhodopsin and Bacteriorhodopsin:â€‰ Possible Roles in Folding and Function. Langmuir, 2008, 24, 1330-1337.	1.6	43
156	Probing the Interactions of Carboxy-atractyloside and Atractyloside with the Yeast Mitochondrial ADP/ATP Carrier. Structure, 2010, 18, 39-46.	1.6	42
157	Differentiating Ligand and Inhibitor Interactions of a Single Antiporter. Journal of Molecular Biology, 2006, 362, 925-932.	2.0	41
158	Substrate-induced changes in the structural properties of LacY. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1571-80.	3.3	40
159	Nonlinear mechanics of lamin filaments and the meshwork topology build an emergent nuclear lamina. Nature Communications, 2020, 11, 6205.	5.8	40
160	Actin microridges characterized by laser scanning confocal and atomic force microscopy. FEBS Letters, 2005, 579, 2001-2008.	1.3	39
161	Dynamic coupling of ALCAM to the actin cortex strengthens cell adhesion to CD6. Journal of Cell Science, 2014, 127, 1595-606.	1.2	39
162	Unraveling the Pore-Forming Steps of Pneumolysin from <i>Streptococcus pneumoniae</i>. Nano Letters, 2016, 16, 7915-7924.	4.5	39

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163	Virus stamping for targeted single-cell infection in vitro and in vivo. Nature Biotechnology, 2018, 36, 81-88.	9.4	39
164	Imaging and detecting molecular interactions of single transmembrane proteins. Neurobiology of Aging, 2006, 27, 546-561.	1.5	38
165	One Î²â€…Hairpin after the Other: Exploring Mechanical Unfolding Pathways of the Transmembrane Î²â€Barrel Protein OmpG. Angewandte Chemie - International Edition, 2009, 48, 8306-8308.	7.2	38
166	The Transmembrane Protein KpOmpA Anchoring the Outer Membrane of Klebsiella pneumoniae Unfolds and Refolds in Response to Tensile Load. Structure, 2012, 20, 121-127.	1.6	38
167	Optimized reconstitution of membrane proteins into synthetic membranes. Communications Chemistry, 2018, 1, .	2.0	38
168	Electron and atomic force microscopy of membrane proteins. Current Opinion in Structural Biology, 1997, 7, 543-549.	2.6	37
169	BCR/ABL Expression of Myeloid Progenitors Increases Î²1-Integrin Mediated Adhesion to Stromal Cells. Journal of Molecular Biology, 2008, 377, 1082-1093.	2.0	37
170	pH-Dependent Interactions Guide the Folding and Gate the Transmembrane Pore of the Î²-Barrel Membrane Protein OmpG. Journal of Molecular Biology, 2010, 397, 878-882.	2.0	37
171	Reversible loss of crystallinity on photobleaching purple membrane in the presence of hydroxylamine 1 1Edited by W. Baumeister. Journal of Molecular Biology, 2000, 301, 869-879.	2.0	36
172	Substrate Binding Tunes Conformational Flexibility and Kinetic Stability of an Amino Acid Antiporter. Journal of Biological Chemistry, 2009, 284, 18651-18663.	1.6	36
173	Molecular Plasticity of the Human Voltage-Dependent Anion Channel Embedded Into a Membrane. Structure, 2016, 24, 585-594.	1.6	36
174	Stimulated singleâ€cell force spectroscopy to quantify cell adhesion receptor crosstalk. Proteomics, 2010, 10, 1455-1462.	1.3	35
175	Assessing the structure and function of single biomolecules with scanning transmission electron and atomic force microscopes. Micron, 2011, 42, 186-195.	1.1	34
176	Quantitative Imaging of the Electrostatic Field and Potential Generated by a Transmembrane Protein Pore at Subnanometer Resolution. Nano Letters, 2013, 13, 5585-5593.	4.5	34
177	Alignment and Cell-Matrix Interactions of Human Corneal Endothelial Cells on Nanostructured Collagen Type I Matrices. , 2010, 51, 6303.		33
178	Locating an extracellular K⁺-dependent interaction site that modulates betaine-binding of the Na⁺-coupled betaine symporter BetP. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E890-8.	3.3	33
179	Insertion and folding pathways of single membrane proteins guided by translocases and insertases. Science Advances, 2019, 5, eaau6824.	4.7	33
180	Fully automated single-molecule force spectroscopy for screening applications. Nanotechnology, 2008, 19, 384020.	1.3	32

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181	One Î² Hairpin Follows the Other: Exploring Refolding Pathways and Kinetics of the Transmembrane Î²â€Barrel Protein OmpG. Angewandte Chemie - International Edition, 2011, 50, 7422-7424.	7.2	32
182	Observing a Lipid-Dependent Alteration in Single Lactose Permeases. Structure, 2015, 23, 754-761.	1.6	32
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