Piotr E Marszalek

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1412636/publications.pdf

Version: 2024-02-01

		172457	88630
67	6,182	29	70
papers	citations	h-index	g-index
73	73	73	4788
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reconstruction of mechanical unfolding and refolding pathways of proteins with atomic force spectroscopy and computer simulations. Methods, 2022, 197, 39-53.	3.8	6
2	Mechanical Stability of a Small, Highly-Luminescent Engineered Protein NanoLuc. International Journal of Molecular Sciences, 2021, 22, 55.	4.1	9
3	Piecewise All-Atom SMD Simulations Reveal Key Secondary Structures in Luciferase Unfolding Pathway. Biophysical Journal, 2020, 119, 2251-2261.	0.5	3
4	Meeting report â€“ NSF-sponsored workshop â€˜Progress and Prospects of Single-Molecule Force Spectroscopy in Biological and Chemical Sciencesâ€™. Journal of Cell Science, 2020, 133, .	2.0	1
5	Exploiting a Mechanical Perturbation of a Titin Domain to Identify How Force Field Parameterization Affects Protein Refolding Pathways. Journal of Chemical Theory and Computation, 2020, 16, 3240-3252.	5.3	5
6	An estimate to the first approximation of microtubule rupture force. European Biophysics Journal, 2019, 48, 569-577.	2.2	6
7	Force Spectroscopy of Single Protein Molecules Using an Atomic Force Microscope. Journal of Visualized Experiments, 2019, , .	0.3	3
8	Relevance of the Speed and Direction of Pulling in Simple Modular Proteins. Journal of Chemical Theory and Computation, 2018, 14, 2910-2918.	5.3	4
9	Unraveling the Mechanical Unfolding Pathways of a Multidomain Protein: Phosphoglycerate Kinase. Biophysical Journal, 2018, 115, 46-58.	0.5	6
10	AFM-Based Single-Molecule Force Spectroscopy of Proteins. Methods in Molecular Biology, 2018, 1814, 35-47.	0.9	16
11	Endonuclease-independent DNA mismatch repair processes on the lagging strand. DNA Repair, 2018, 68, 41-49.	2.8	2
12	Warhammers for Peaceful Times. Biophysical Journal, 2018, 114, 1-2.	0.5	13
13	Strong, Tough, Stretchable, and Selfâ€Adhesive Hydrogels from Intrinsically Unstructured Proteins. Advanced Materials, 2017, 29, 1604743.	21.0	130
14	A â€˜Semi-Protected Oligonucleotide Recombinationâ€™ Assay for DNA Mismatch Repairin vivoSuggests Different Modes of Repair for Lagging Strand Mismatches. Nucleic Acids Research, 2017, 45, gkw1339.	14.5	2
15	Competing Pathways and Multiple Folding Nuclei in a Large Multidomain Protein, Luciferase. Biophysical Journal, 2017, 112, 1829-1840.	0.5	12
16	Single-molecule Force Spectroscopy Reveals the Calcium Dependence of the Alternative Conformations in the Native State of a Î²Î³-Crystallin Protein. Journal of Biological Chemistry, 2016, 291, 18263-18275.	3.4	13
17	Can Dissipative Properties of Single Molecules Be Extracted from a Force Spectroscopy Experiment?. Biophysical Journal, 2016, 111, 1163-1172.	0.5	10
18	Modular, Nondegenerate Polyprotein Scaffolds for Atomic Force Spectroscopy. Biomacromolecules, 2016, 17, 2502-2505.	5.4	12

#	Article	IF	Citations
19	Direct Observation of Multimer Stabilization in the Mechanical Unfolding Pathway of a Protein Undergoing Oligomerization. ACS Nano, 2015, 9, 1189-1197.	14.6	18
20	Structure and specificity of the RNA-guided endonuclease Cas9 during DNA interrogation, target binding and cleavage. Nucleic Acids Research, 2015, 43, 8924-8941.	14.5	113
21	Atomic force microscopy captures the initiation of methyl-directed DNA mismatch repair. DNA Repair, 2015, 35, 71-84.	2.8	10
22	Single molecule mechanical manipulation for studying biological properties of proteins, <scp>DNA</scp>, and sugars. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2014, 6, 211-229.	6.1	34
23	Chaperones Rescue Luciferase Folding by Separating Its Domains. Journal of Biological Chemistry, 2014, 289, 28607-28618.	3.4	31
24	Unraveling the Mysteries of Chaperone Interactions of the Myosin Head. Biophysical Journal, 2014, 107, 541-542.	0.5	0
25	Improving single molecule force spectroscopy through automated real-time data collection and quantification of experimental conditions. Ultramicroscopy, 2014, 136, 7-14.	1.9	12
26	Capturing the Mechanical Unfolding Pathway of a Large Protein with Coiledâ€Coil Probes. Angewandte Chemie - International Edition, 2014, 53, 13429-13433.	13.8	17
27	Origin of Overstretching Transitions in Single-Stranded Nucleic Acids. Physical Review Letters, 2013, 111, 188302.	7.8	13
28	Mutation of Conserved Histidines Alters Tertiary Structure and Nanomechanics of Consensus Ankyrin Repeats. Journal of Biological Chemistry, 2012, 287, 19115-19121.	3.4	10
29	Stretching single polysaccharides and proteins using atomic force microscopy. Chemical Society Reviews, 2012, 41, 3523.	38.1	118
30	Mechanical Anisotropy of Ankyrin Repeats. Biophysical Journal, 2012, 102, 1118-1126.	0.5	20
31	A Nanoscale Force Probe for Gauging Intermolecular Interactions. Angewandte Chemie - International Edition, 2012, 51, 1903-1906.	13.8	13
32	Inhibitor Binding Increases the Mechanical Stability of Staphylococcal Nuclease. Biophysical Journal, 2011, 100, 1094-1099.	0.5	30
33	Atomic force microscopy captures MutS tetramers initiating DNA mismatch repair. EMBO Journal, 2011, 30, 2881-2893.	7.8	37
34	Nanomechanics of Streptavidin Hubs for Molecular Materials. Advanced Materials, 2011, 23, 5684-5688.	21.0	26
35	Detecting methylation with force. Nature Nanotechnology, 2010, 5, 765-766.	31.5	3
36	Full Reconstruction of a Vectorial Protein Folding Pathway by Atomic Force Microscopy and Molecular Dynamics Simulations*. Journal of Biological Chemistry, 2010, 285, 38167-38172.	3.4	36

#	Article	IF	Citations
37	Mechanical Unfolding of an Ankyrin Repeat Protein. Biophysical Journal, 2010, 98, 1294-1301.	0.5	56
38	Fast and Forceful Refolding of Stretched Î±-Helical Solenoid Proteins. Biophysical Journal, 2010, 98, 3086-3092.	0.5	49
39	Separating DNA with Different Topologies by Atomic Force Microscopy in Comparison with Gel Electrophoresis. Journal of Physical Chemistry B, 2010, 114, 12162-12165.	2.6	12
40	UVA Generates Pyrimidine Dimers in DNA Directly. Biophysical Journal, 2009, 96, 1151-1158.	0.5	132
41	Detecting Solvent-Driven Transitions of poly(A) to Double-Stranded Conformations by Atomic Force Microscopy. Biophysical Journal, 2009, 96, 2918-2925.	0.5	14
42	Nanoscale Detection of Ionizing Radiation Damage to DNA by Atomic Force Microscopy. Small, 2008, 4, 288-294.	10.0	22
43	Detecting Ultraviolet Damage in Single DNA Molecules by Atomic Force Microscopy. Biophysical Journal, 2007, 93, 1758-1767.	0.5	53
44	Nanomechanical Fingerprints of UV Damage To DNA. Small, 2007, 3, 809-813.	10.0	11
45	Direct Measurements of Base Stacking Interactions in DNA by Single-Molecule Atomic-Force Spectroscopy. Physical Review Letters, 2007, 99, 018302.	7.8	129
46	Construction of a Single-Axis Molecular Puller for Measuring Polysaccharide and Protein Mechanics by Atomic Force Microscopy. Cold Spring Harbor Protocols, 2007, 2007, pdb.prot4899-pdb.prot4899.	0.3	4
47	Direct Detection of the Formation of V-Amylose Helix by Single Molecule Force Spectroscopy. Journal of the American Chemical Society, 2006, 128, 9387-9393.	13.7	51
48	Simulating Force-Induced Conformational Transitions in Polysaccharides with the SMD Replica Exchange Method. Biophysical Journal, 2006, 91, L57-L59.	0.5	7
49	Identification of Sugar Isomers by Single-Molecule Force Spectroscopy. Journal of the American Chemical Society, 2006, 128, 5596-5597.	13.7	27
50	Nanospring behaviour of ankyrin repeats. Nature, 2006, 440, 246-249.	27.8	354
51	Solvent effects on the elasticity of polysaccharide molecules in disordered and ordered states by single-molecule force spectroscopy. Polymer, 2006, 47, 2526-2532.	3.8	35
52	Direct Detection of Inter-residue Hydrogen Bonds in Polysaccharides by Single-Molecule Force Spectroscopy. Angewandte Chemie - International Edition, 2005, 44, 2723-2727.	13.8	36
53	Nanomechanical Control of Glucopyranose Rotamers. Journal of the American Chemical Society, 2004, 126, 6218-6219.	13.7	19
54	Elastic Properties of Single Amylose Chains in Water:Â A Quantum Mechanical and AFM Study. Journal of the American Chemical Society, 2004, 126, 9033-9041.	13.7	45

#	Article	IF	Citations
55	The Force-Driven Conformations of Heparin Studied with Single Molecule Force Microscopy. Biophysical Journal, 2003, 85, 2696-2704.	0.5	38
56	Chair-boat transitions in single polysaccharide molecules observed with force-ramp AFM. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4278-4283.	7.1	141
57	Reverse engineering of the giant muscle protein titin. Nature, 2002, 418, 998-1002.	27.8	487
58	Fingerprinting polysaccharides with single-molecule atomic force microscopy. Nature Biotechnology, 2001, 19, 258-262.	17.5	139
59	Stretching single molecules into novel conformations using the atomic force microscope. Nature Structural Biology, 2000, 7, 719-724.	9.7	283
60	Point mutations alter the mechanical stability of immunoglobulin modules. Nature Structural Biology, 2000, 7, 1117-1120.	9.7	206
61	Mechanical design of proteins studied by single-molecule force spectroscopy and protein engineering. Progress in Biophysics and Molecular Biology, 2000, 74, 63-91.	2.9	400
62	Single protein misfolding events captured by atomic force microscopy. Nature Structural Biology, 1999, 6, 1025-1028.	9.7	188
63	The micro-mechanics of single molecules studied with atomic force microscopy. Journal of Physiology, 1999, 520, 5-14.	2.9	68
64	Mechanical unfolding intermediates in titin modules. Nature, 1999, 402, 100-103.	27.8	789
65	The study of protein mechanics with the atomic force microscope. Trends in Biochemical Sciences, 1999, 24, 379-384.	7.5	313
66	The molecular elasticity of the extracellular matrix protein tenascin. Nature, 1998, 393, 181-185.	27.8	820
67	Polysaccharide elasticity governed by chairâ€“boat transitions of the glucopyranose ring. Nature, 1998, 396, 661-664.	27.8	436