Justin E Molloy

List of Publications by Year in descending order

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117453 82410 5,441 79 34 72 citations g-index h-index papers 86 86 86 4993 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Movement and force produced by a single myosin head. Nature, 1995, 378, 209-212.	13.7	618
2	Formation and dissociation of M $\langle sub \rangle 1 \langle sub \rangle$ muscarinic receptor dimers seen by total internal reflection fluorescence imaging of single molecules. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2693-2698.	3.3	370
3	Lights, action: Optical tweezers. Contemporary Physics, 2002, 43, 241-258.	0.8	360
4	The gated gait of the processive molecular motor, myosin V. Nature Cell Biology, 2002, 4, 59-65.	4.6	360
5	The motor protein myosin-I produces its working stroke in two steps. Nature, 1999, 398, 530-533.	13.7	328
6	Load-dependent kinetics of force production by smooth muscle myosin measured with optical tweezers. Nature Cell Biology, 2003, 5, 980-986.	4.6	307
7	B Cells Use Mechanical Energy to Discriminate Antigen Affinities. Science, 2013, 340, 1587-1590.	6.0	264
8	The Stiffness of Rabbit Skeletal Actomyosin Cross-Bridges Determined with an Optical Tweezers Transducer. Biophysical Journal, 1998, 75, 1424-1438.	0.2	227
9	Automatic Detection of Single Fluorophores in Live Cells. Biophysical Journal, 2007, 92, 2199-2211.	0.2	158
10	Physiological properties of the dorsal longitudinal flight muscle and the tergal depressor of the trochanter muscle ofDrosophila melanogaster. Journal of Muscle Research and Cell Motility, 1990, 11, 203-215.	0.9	144
11	Neck Length and Processivity of Myosin V. Journal of Biological Chemistry, 2003, 278, 29201-29207.	1.6	139
12	Visualizing single molecules inside living cells using total internal reflection fluorescence microscopy. Methods, 2003, 29, 142-152.	1.9	112
13	Myosin Motors Drive Long Range Alignment of Actin Filaments. Journal of Biological Chemistry, 2010, 285, 4964-4974.	1.6	109
14	Dual acylation of the 45kDa gliding-associated protein (GAP45) in Plasmodium falciparum merozoites. Molecular and Biochemical Parasitology, 2006, 149, 113-116.	0.5	97
15	Myosin-5, kinesin-1 and myosin-17 cooperate in secretion of fungal chitin synthase. EMBO Journal, 2012, 31, 214-227.	3.5	97
16	Promoter Binding, Initiation, and Elongation By Bacteriophage T7 RNA Polymerase. Journal of Biological Chemistry, 2004, 279, 3239-3244.	1.6	89
17	Contractility of single human dermal myofibroblasts and fibroblasts. Cytoskeleton, 2002, 52, 82-90.	4.4	82
18	Myo1c is designed for the adaptation response in the inner ear. EMBO Journal, 2004, 23, 1433-1440.	3.5	82

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19	The MTIP–Myosin A Complex in Blood Stage Malaria Parasites. Journal of Molecular Biology, 2006, 355, 933-941.	2.0	81
20	Alternative Exon-encoded Regions of Drosophila Myosin Heavy Chain Modulate ATPase Rates and Actin Sliding Velocity. Journal of Biological Chemistry, 2001, 276, 15117-15124.	1.6	74
21	The Spatial and Temporal Dynamics of Pleckstrin Homology Domain Binding at the Plasma Membrane Measured by Imaging Single Molecules in Live Mouse Myoblasts. Journal of Biological Chemistry, 2004, 279, 15274-15280.	1.6	72
22	The SAH domain extends the functional length of the myosin lever. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22193-22198.	3.3	70
23	Visualizing helicases unwinding DNA at the single molecule level. Nucleic Acids Research, 2010, 38, 4448-4457.	6.5	58
24	Actin Residue Glu93 Is Identified as an Amino Acid Affecting Myosin Binding. Journal of Biological Chemistry, 1999, 274, 28321-28328.	1.6	55
25	Myosin light chain-2 mutation affects flight, wing beat frequency, and indirect flight muscle contraction kinetics in Drosophila Journal of Cell Biology, 1992, 119, 1523-1539.	2.3	53
26	Muscle Contraction: Actin Filaments Enter the Fray. Biophysical Journal, 2005, 89, 1-2.	0.2	52
27	Analysis of single-molecule mechanical recordings: application to acto-myosin interactions. Progress in Biophysics and Molecular Biology, 2001, 77, 45-72.	1.4	51
28	Myosin-10 produces its power-stroke in two phases and moves processively along a single actin filament under low load. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1833-42.	3.3	45
29	Functional and ultrastructural effects of a missense mutation in the indirect flight muscle-specific actin gene of Drosophila melanogaster. Journal of Molecular Biology, 1991, 222, 963-982.	2.0	44
30	The Josephin Domain Determines the Morphological and Mechanical Properties of Ataxin-3 Fibrils. Biophysical Journal, 2011, 100, 2033-2042.	0.2	44
31	Abundance, distribution, mobility and oligomeric state of M2 muscarinic acetylcholine receptors in live cardiac muscle. Journal of Molecular and Cellular Cardiology, 2013, 57, 129-136.	0.9	44
32	Compositional and expression analyses of the glideosome during the Plasmodium life cycle reveal an additional myosin light chain required for maximum motility. Journal of Biological Chemistry, 2017, 292, 17857-17875.	1.6	41
33	Monomeric PcrA helicase processively unwinds plasmid lengths of DNA in the presence of the initiator protein RepD. Nucleic Acids Research, 2013, 41, 5010-5023.	6.5	40
34	Bromomaleimide‣inked Bioconjugates Are Cleavable in Mammalian Cells. ChemBioChem, 2012, 13, 39-41.	1.3	39
35	BIOPHYSICS: Myosin Motors Walk the Walk. Science, 2003, 300, 2045-2046.	6.0	37
36	Mode of drug binding to DNA determined by optical tweezers force spectroscopy. Journal of Modern Optics, 2003, 50, 1627-1636.	0.6	34

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37	Chapter 12 Optical Chopsticks: Digital Synthesis of Multiple Optical Traps. Methods in Cell Biology, 1997, 55, 205-216.	0.5	33
38	A model of stereocilia adaptation based on single molecule mechanical studies of myosin I. Philosophical Transactions of the Royal Society B: Biological Sciences, 2004, 359, 1895-1905.	1.8	32
39	The mechanism of erythrocyte invasion by the malarial parasite, Plasmodium falciparum. Seminars in Cell and Developmental Biology, 2011, 22, 953-960.	2.3	32
40	Quantification of Single Human Dermal Fibroblast Contraction. Tissue Engineering, 1998, 4, 281-291.	4.9	31
41	Multiple CaMKII Binding Modes to the Actin Cytoskeleton Revealed by Single-Molecule Imaging. Biophysical Journal, 2016, 111, 395-408.	0.2	29
42	Interaction between MyRIP and the actin cytoskeleton regulates Weibel-Palade body trafficking and exocytosis. Journal of Cell Science, 2015, 129, 592-603.	1.2	28
43	Architectural Dynamics of CaMKII-Actin Networks. Biophysical Journal, 2019, 116, 104-119.	0.2	23
44	Single-molecule measurements reveal that PARP1 condenses DNA by loop stabilization. Science Advances, 2021, 7 , .	4.7	23
45	Preface: Optical tweezers in a new light. Journal of Modern Optics, 2003, 50, 1501-1507.	0.6	23
46	Optical tweezers in a new light. Journal of Modern Optics, 2003, 50, 1501-1507.	0.6	21
47	Direct Observation of Individual KCNQ1 Potassium Channels Reveals Their Distinctive Diffusive Behavior. Journal of Biological Chemistry, 2010, 285, 3664-3675.	1.6	21
48	Combined single-molecule force and fluorescence measurements for biology. Journal of Biology, 2003, 2, 4.	2.7	19
49	Growth and Tumor Suppressor NORE1A Is a Regulatory Node between Ras Signaling and Microtubule Nucleation. Journal of Biological Chemistry, 2010, 285, 16258-16266.	1.6	19
50	Spatiotemporal Dynamics of Actomyosin Networks. Biophysical Journal, 2013, 105, 1456-1465.	0.2	16
51	A Combination of Diffusion and Active Translocation Localizes Myosin 10 to the Filopodial Tip. Journal of Biological Chemistry, 2016, 291, 22373-22385.	1.6	16
52	An unexpectedly large working stroke from chymotryptic fragments of myosin II. FEBS Letters, 2000, 480, 293-297.	1.3	15
53	Cell biochemistry studied by single-molecule imaging. Biochemical Society Transactions, 2006, 34, 983-988.	1.6	14
54	Approximating the isometric force-calcium relation of intact frog muscle using skinned fibers. Biophysical Journal, 1995, 69, 1484-1490.	0.2	13

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55	Kinesin steps back. Nature, 2005, 435, 285-287.	13.7	12
56	A Single-Molecule Approach to Visualize the Unwinding Activity of DNA Helicases. Methods in Molecular Biology, 2011, 778, 193-214.	0.4	12
57	High-resolution structures of malaria parasite actomyosin and actin filaments. PLoS Pathogens, 2022, 18, e1010408.	2.1	12
58	Smooth and skeletal muscle single-molecule mechanical experiments. Biophysical Journal, 1997, 72, 984-986.	0.2	11
59	Single molecule measurements and biological motors. European Biophysics Journal, 2005, 35, 89-89.	1.2	10
60	Efficient golden gate assembly of DNA constructs for single molecule force spectroscopy and imaging. Nucleic Acids Research, 2022, 50, e77-e77.	6.5	10
61	Coupling ATP hydrolysis to mechanical work. Nature Cell Biology, 1999, 1, E87-E89.	4.6	9
62	Active actin gels. Communicative and Integrative Biology, 2012, 5, 39-42.	0.6	8
63	Calcium regulates scallop muscle by changing myosin flexibility. European Biophysics Journal, 2006, 35, 302-312.	1.2	7
64	Evaluating the use of Apo-neocarzinostatin as a cell penetrating protein. Protein Engineering, Design and Selection, 2013, 26, 277-281.	1.0	7
65	oriD structure controls RepD initiation during rolling-circle replication. Scientific Reports, 2018, 8, 1206.	1.6	7
66	Heterogeneity of cell membrane structure studied by single molecule tracking. Faraday Discussions, 2021, 232, 358-374.	1.6	7
67	The effect of ionic strength on the kinetics of rigor development in skinned fast-twitch skeletal muscle fibres. Pflugers Archiv European Journal of Physiology, 1998, 435, 753-761.	1.3	6
68	Muscle, myosin and single molecules. Essays in Biochemistry, 2000, 35, 43-59.	2.1	6
69	A method for imaging single molecules at the plasma membrane of live cells within tissue slices. Journal of General Physiology, 2021, 153, .	0.9	6
70	Imaging Individual Myosin Molecules Within Living Cells. Methods in Molecular Biology, 2011, 778, 123-142.	0.4	5
71	Microfluidic flow-cell with passive flow control for microscopy applications. PLoS ONE, 2020, 15, e0244103.	1.1	5
72	TORC2-Gad8-dependent myosin phosphorylation modulates regulation by calcium. ELife, 2019, 8, .	2.8	4

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73	Characterization of Three Regulatory States of the Striated Muscle Thin Filament. Journal of Molecular Biology, 2002, 323, 475-489.	2.0	3
74	P-selectin mobility undergoes a sol-gel transition as it diffuses from exocytosis sites into the cell membrane. Nature Communications, 2022, 13 , .	5.8	3
75	Using Total Internal Reflection Fluorescence Microscopy to Observe Ion Channel Trafficking and Assembly. Methods in Molecular Biology, 2013, 998, 201-208.	0.4	2
76	Single Molecule Studies of Myosins. , 2009, , 1-33.		1
77	Optical trapping studies of acto-myosin motor proteins. , 2007, , .		O
78	Two's company, three's a crowd. Nature Physics, 2015, 11, 803-804.	6.5	0
79	Analysis of single-molecule mechanical recordings. , 2001, , 45-72.		0