Thomas D Pollard

List of Publications by Year
in descending order

219 papers	32,531 citations	4120 87 h-index	4419 172 g-index
238 all docs	238 docs citations	238 times ranked	19944 citing authors

#	Article	IF	Citations
1	Cellular Motility Driven by Assembly and Disassembly of Actin Filaments. Cell, 2003, 112, 453-465.	13.5	3,717
2	Actin, a Central Player in Cell Shape and Movement. Science, 2009, 326, 1208-1212.	6.0	1,673
3	Molecular Mechanisms Controlling Actin Filament Dynamics in Nonmuscle Cells. Annual Review of Biophysics and Biomolecular Structure, 2000, 29, 545-576.	18.3	1,319
4	Actin And Myosin And Cell Movemen. CRC Critical Reviews in Biochemistry, 1974, 2, 1-65.	2.0	979
5	Regulation of Actin Filament Assembly by Arp2/3 Complex and Formins. Annual Review of Biophysics and Biomolecular Structure, 2007, 36, 451-477.	18.3	850
6	Regulation of Actin Filament Network Formation Through ARP2/3 Complex: Activation by a Diverse Array of Proteins. Annual Review of Biochemistry, 2001, 70, 649-676.	5.0	608
7	Mechanism of Actin Filament Turnover by Severing and Nucleation at Different Concentrations of ADF/Cofilin. Molecular Cell, 2006, 24, 13-23.	4.5	597
8	Actin and Actin-Binding Proteins. Cold Spring Harbor Perspectives in Biology, 2016, 8, a018226.	2.3	584
9	Counting Cytokinesis Proteins Globally and Locally in Fission Yeast. Science, 2005, 310, 310-314.	6.0	531
10	Control of the Assembly of ATP- and ADP-Actin by Formins and Profilin. Cell, 2006, 124, 423-435.	13.5	509
11	Direct observation of dendritic actin filament networks nucleated by Arp2/3 complex and WASP/Scar proteins. Nature, 2000, 404, 1007-1011.	13.7	502
12	Acanthamoeba Myosin. Journal of Biological Chemistry, 1973, 248, 4682-4690.	1.6	489
13	Crystal Structure of Arp2/3 Complex. Science, 2001, 294, 1679-1684.	6.0	484
14	Identification of a factor in conventional muscle actin preparations which inhibits actin filament self-association. Biochemical and Biophysical Research Communications, 1980, 96, 18-27.	1.0	478
15	Activation by Cdc42 and Pip2 of Wiskott-Aldrich Syndrome Protein (Wasp) Stimulates Actin Nucleation by Arp2/3 Complex. Journal of Cell Biology, 2000, 150, 1311-1320.	2.3	453
16	Pyrene actin: documentation of the validity of a sensitive assay for actin polymerization. Journal of Muscle Research and Cell Motility, 1983, 4, 253-262.	0.9	451
17	Insertional assembly of actin filament barbed ends in association with formins produces piconewton forces. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14725-14730.	3.3	403
18	Membrane fission by dynamin: what we know and what we need to know. EMBO Journal, 2016, 35, 2270-2284.	3.5	388

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19	Spatial and Temporal Pathway for Assembly and Constriction of the Contractile Ring in Fission Yeast Cytokinesis. Developmental Cell, 2003, 5, 723-734.	3.1	363
20	Real-Time Measurements of Actin Filament Polymerization by Total Internal Reflection Fluorescence Microscopy. Biophysical Journal, 2005, 88, 1387-1402.	0.2	363
21	Assembly Mechanism of the Contractile Ring for Cytokinesis by Fission Yeast. Science, 2008, 319, 97-100.	6.0	346
22	A Guide to Simple and Informative Binding Assays. Molecular Biology of the Cell, 2010, 21, 4061-4067.	0.9	346
23	The fission yeast cytokinesis formin Cdc12p is a barbed end actin filament capping protein gated by profilin. Journal of Cell Biology, 2003, 161, 875-887.	2.3	313
24	Quantitative analysis of the effect of Acanthamoeba profilin on actin filament nucleation and elongation. Biochemistry, 1984, 23, 6631-6641.	1.2	307
25	Understanding cytokinesis: lessons from fission yeast. Nature Reviews Molecular Cell Biology, 2010, 11, 149-155.	16.1	295
26	Interaction of WASP/Scar proteins with actin and vertebrate Arp2/3 complex. Nature Cell Biology, 2001, 3, 76-82.	4.6	293
27	Binding of myosin I to membrane lipids. Nature, 1989, 340, 565-568.	13.7	285
28	Mechanism of Interaction of Acanthamoeba Actophorin (ADF/Cofilin) with Actin Filaments. Journal of Biological Chemistry, 1999, 274, 15538-15546.	1.6	280
29	Mechanics of cytokinesis in eukaryotes. Current Opinion in Cell Biology, 2010, 22, 50-56.	2.6	274
30	The structural basis of actin filament branching by the Arp2/3 complex. Journal of Cell Biology, 2008, 180, 887-895.	2.3	270
31	The cytoskeleton, cellular motility and the reductionist agenda. Nature, 2003, 422, 741-745.	13.7	259
32	Influence of the C Terminus of Wiskott-Aldrich Syndrome Protein (WASp) and the Arp2/3 Complex on Actin Polymerizationâ€. Biochemistry, 1999, 38, 15212-15222.	1.2	256
33	Interactions of ADF/cofilin, Arp2/3 complex, capping protein and profilin in remodeling of branched actin filament networks. Current Biology, 2000, 10, 1273-1282.	1.8	254
34	Assembly of the cytokinetic contractile ring from a broad band of nodes in fission yeast. Journal of Cell Biology, 2006, 174, 391-402.	2.3	243
35	Propulsion of organelles isolated from Acanthamoeba along actin filaments by myosin-I. Nature, 1986, 322, 754-756.	13.7	236
36	Structure of Arp2/3 Complex in Its Activated State and in Actin Filament Branch Junctions. Science, 2001, 293, 2456-2459.	6.0	236

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37	An actin-binding protein from Acanthamoeba regulates actin filament polymerization and interactions. Nature, 1980, 288, 455-459.	13.7	228
38	Structure, Subunit Topology, and Actin-binding Activity of the Arp2/3 Complex from Acanthamoeba. Journal of Cell Biology, 1997, 136, 331-343.	2.3	211
39	Leiomodin Is an Actin Filament Nucleator in Muscle Cells. Science, 2008, 320, 239-243.	6.0	207
40	Inhibition of the Arp2/3 complex-nucleated actin polymerization and branch formation by tropomyosin. Current Biology, 2001, 11, 1300-1304.	1.8	205
41	Review of the mechanism of processive actin filament elongation by formins. Cytoskeleton, 2009, 66, 606-617.	4.4	202
42	Kinetic evidence for a monomer activation step in actin polymerization. Biochemistry, 1983, 22, 2193-2202.	1.2	200
43	The Role of the FH1 Domain and Profilin in Formin-Mediated Actin-Filament Elongation and Nucleation. Current Biology, 2008, 18, 9-19.	1.8	197
44	The Arp2/3 complex nucleates actin filament branches from the sides of pre-existing filaments. Nature Cell Biology, 2001, 3, 306-310.	4.6	196
45	Polymerization kinetics of ADP- and ADP-Pi-actin determined by fluorescence microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8827-8832.	3.3	192
46	Human platelet myosin. I. Purification by a rapid method applicable to other nonmuscle cells. Analytical Biochemistry, 1974, 60, 258-266.	1.1	182
47	Dependence of the mechanical properties of actin/Î±-actinin gels on deformation rate. Nature, 1987, 325, 828-830.	13.7	179
48	CYTOPLASMIC FILAMENTS OF AMOEBA PROTEUS. Journal of Cell Biology, 1970, 46, 267-289.	2.3	177
49	Model of Formin-Associated Actin Filament Elongation. Molecular Cell, 2006, 21, 455-466.	4.5	174
50	Mechanism of actin polymerization revealed by cryo-EM structures of actin filaments with three different bound nucleotides. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4265-4274.	3.3	173
51	Dynamic Cross-linking by Î±-Actinin Determines the Mechanical Properties of Actin Filament Networks. Journal of Biological Chemistry, 1998, 273, 9570-9576.	1.6	172
52	Cofilin Dissociates Arp2/3 Complex and Branches from Actin Filaments. Current Biology, 2009, 19, 537-545.	1.8	172
53	Fission Yeast Myosin-I, Myo1p, Stimulates Actin Assembly by Arp2/3 Complex and Shares Functions with Wasp. Journal of Cell Biology, 2000, 151, 789-800.	2.3	161
54	Hydrolysis of ATP by Polymerized Actin Depends on the Bound Divalent Cation but Not Profilin. Biochemistry, 2002, 41, 597-602.	1.2	161

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55	Identification of a Second Myosin-II inSchizosaccharomyces pombe:. Molecular Biology of the Cell, 1997, 8, 2693-2705.	0.9	159
56	Quantitative Analysis of the Mechanism of Endocytic Actin Patch Assembly and Disassembly in Fission Yeast. Molecular Biology of the Cell, 2010, 21, 2894-2904.	0.9	159
57	Interaction of Actin Monomers with AcanthamoebaActophorin (ADF/Cofilin) and Profilin. Journal of Biological Chemistry, 1998, 273, 25106-25111.	1.6	155
58	Interactions ofAcanthamoebaProfilin with Actin and Nucleotides Bound to Actinâ€. Biochemistry, 1998, 37, 10871-10880.	1.2	152
59	Interactions of WASp, myosin-I, and verprolin with Arp2/3 complex during actin patch assembly in fission yeast. Journal of Cell Biology, 2005, 170, 637-648.	2.3	143
60	Molecular Mechanism of Cytokinesis. Annual Review of Biochemistry, 2019, 88, 661-689.	5.0	142
61	Arp2/3 complexâ€“dependent actin networks constrain myosin II function in driving retrograde actin flow. Journal of Cell Biology, 2012, 197, 939-956.	2.3	140
62	Profilin Binding to Poly-<scp>l</scp>-Proline and Actin Monomers along with Ability to Catalyze Actin Nucleotide Exchange Is Required for Viability of Fission Yeast. Molecular Biology of the Cell, 2001, 12, 1161-1175.	0.9	136
63	A conserved amphipathic helix in WASP/Scar proteins is essential for activation of Arp2/3 complex. Nature Structural and Molecular Biology, 2003, 10, 591-598.	3.6	133
64	Arrangement of actin filaments and myosin-like filaments in the contractile ring and of actin-like filaments in the mitotic spindle of dividing HeLa cells. Journal of Structural Biology, 1986, 94, 92-103.	0.9	132
65	Electron Microscopic Identification of Actin Associated with Isolated Amoeba Plasma Membranes. Journal of Biological Chemistry, 1973, 248, 448-450.	1.6	132
66	Annealing Accounts for the Length of Actin Filaments Formed by Spontaneous Polymerization. Biophysical Journal, 1999, 77, 2911-2919.	0.2	129
67	Structure and function of the Arp2/3 complex. Current Opinion in Structural Biology, 2002, 12, 768-774.	2.6	129
68	Structure and function of the Arp2/3 complex. Current Opinion in Structural Biology, 1999, 9, 244-249.	2.6	128
69	Mechanism of Cytokinetic Contractile Ring Constriction in Fission Yeast. Developmental Cell, 2014, 29, 547-561.	3.1	127
70	A dynein-like protein from brain. FEBS Letters, 1974, 40, 274-280.	1.3	125
71	Structural and biochemical characterization of two binding sites for nucleation-promoting factor WASp-VCA on Arp2/3 complex. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E463-71.	3.3	124
72	Molecular organization of cytokinesis nodes and contractile rings by super-resolution fluorescence microscopy of live fission yeast. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5876-E5885.	3.3	121

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73	UCS protein Rng3p activates actin filament gliding by fission yeast myosin-II. Journal of Cell Biology, 2004, 167, 315-325.	2.3	120
74	Acanthamoeba Myosin. Journal of Biological Chemistry, 1973, 248, 4691-4697.	1.6	118
75	Avoiding artefacts when counting polymerized actin in live cells with LifeAct fused to fluorescent proteins. Nature Cell Biology, 2016, 18, 676-683.	4.6	117
76	The rate constant for ATP hydrolysis by polymerized actin. FEBS Letters, 1984, 170, 94-98.	1.3	116
77	A glow discharge unit to render electron microscope grids and other surfaces hydrophilic. Journal of Electron Microscopy Technique, 1987, 7, 29-33.	1.1	115
78	Tension modulates actin filament polymerization mediated by formin and profilin. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9752-9757.	3.3	115
79	Mathematical Modeling of Endocytic Actin Patch Kinetics in Fission Yeast: Disassembly Requires Release of Actin Filament Fragments. Molecular Biology of the Cell, 2010, 21, 2905-2915.	0.9	114
80	Profilin-mediated Competition between Capping Protein and Formin Cdc12p during Cytokinesis in Fission Yeast. Molecular Biology of the Cell, 2005, 16, 2313-2324.	0.9	110
81	Structural Requirements and Thermodynamics of the Interaction of Proline Peptides with Profilinâ€. Biochemistry, 1996, 35, 16535-16543.	1.2	109
82	Nucleotide-dependent conformational states of actin. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12723-12728.	3.3	106
83	Cytoskeletal functions of cytoplasmic contractile proteins. Journal of Supramolecular Structure, 1976, 5, 317-334.	2.3	105
84	A Malaria Parasite Formin Regulates Actin Polymerization and Localizes to the Parasite-Erythrocyte Moving Junction during Invasion. Cell Host and Microbe, 2008, 3, 188-198.	5.1	105
85	Kinetics and Thermodynamics of Phalloidin Binding to Actin Filaments from Three Divergent Speciesâ€. Biochemistry, 1996, 35, 14054-14061.	1.2	97
86	Latrunculin A Accelerates Actin Filament Depolymerization in Addition to Sequestering Actin Monomers. Current Biology, 2018, 28, 3183-3192.e2.	1.8	96
87	Xenopus Actin-interacting Protein 1 (XAip1) Enhances Cofilin Fragmentation of Filaments by Capping Filament Ends. Journal of Biological Chemistry, 2002, 277, 43011-43016.	1.6	93
88	Actin filament severing by cofilin is more important for assembly than constriction of the cytokinetic contractile ring. Journal of Cell Biology, 2011, 195, 485-498.	2.3	92
89	Measurement of rate constants for actin filament elongation in solution. Analytical Biochemistry, 1983, 134, 406-412.	1.1	91
90	Pathway of Actin Filament Branch Formation by Arp2/3 Complex. Journal of Biological Chemistry, 2008, 283, 7135-7144.	1.6	90

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91	Arp2/3 Complex fromAcanthamoebaBinds Profilin and Cross-links Actin Filaments. Molecular Biology of the Cell, 1998, 9, 841-852.	0.9	88
92	Cytokinesis Depends on the Motor Domains of Myosin-II in Fission Yeast but Not in Budding Yeast. Molecular Biology of the Cell, 2005, 16, 5346-5355.	0.9	88
93	FILAMENTS OF AMOEBA PROTEUS. Journal of Cell Biology, 1971, 48, 216-219.	2.3	86
94	Reconstitution of the transition from lamellipodium to filopodium in a membrane-free system. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4906-4911.	3.3	86
95	Three Myosins Contribute Uniquely to the Assembly and Constriction of the Fission Yeast Cytokinetic Contractile Ring. Current Biology, 2015, 25, 1955-1965.	1.8	85
96	Transient kinetic analysis of rhodamine phalloidin binding to actin filaments. Biochemistry, 1994, 33, 14387-14392.	1.2	84
97	Structure and Dynamics of the Actin Filament. Journal of Molecular Biology, 2010, 396, 252-263.	2.0	84
98	Crystal structures of actin-related protein 2/3 complex with bound ATP or ADP. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15627-15632.	3.3	81
99	Distinct Roles for F-BAR Proteins Cdc15p and Bzz1p in Actin Polymerization at Sites of Endocytosis in Fission Yeast. Current Biology, 2011, 21, 1450-1459.	1.8	80
100	Formins filter modified actin subunits during processive elongation. Journal of Structural Biology, 2012, 177, 32-39.	1.3	80
101	Contractile Ring Stability in S.Âpombe Depends on F-BAR Protein Cdc15p and Bgs1p Transport from the Golgi Complex. Cell Reports, 2014, 8, 1533-1544.	2.9	78
102	Fission yeast myosin-II isoforms assemble into contractile rings at distinct times during mitosis. Current Biology, 2000, 10, 397-400.	1.8	77
103	Interaction of Profilin with the Barbed End of Actin Filaments. Biochemistry, 2013, 52, 6456-6466.	1.2	75
104	Nine unanswered questions about cytokinesis. Journal of Cell Biology, 2017, 216, 3007-3016.	2.3	73
105	Nucleotide-Free Actin: Stabilization by Sucrose and Nucleotide Binding Kinetics. Biochemistry, 1995, 34, 5452-5461.	1.2	72
106	Crystal structure of the actin-binding protein actophorin from Acanthamoeba. Nature Structural and Molecular Biology, 1997, 4, 369-373.	3.6	72
107	Rho-family GTPases require the Arp2/3 complex to stimulate actin polymerizationin Acanthamoeba extracts. Current Biology, 1999, 9, 405-415.	1.8	71
108	Phosphorylation of Acanthamoeba actophorin (ADF/cofilin) blocks interaction with actin without a change in atomic structure. Journal of Molecular Biology, 2000, 295, 203-211.	2.0	71

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109	Myosin-I nomenclature. Journal of Cell Biology, 2001, 155, 703-704.	2.3	71
110	Actin Filament Severing by Cofilin Dismantles Actin Patches and Produces Mother Filaments for New Patches. Current Biology, 2013, 23, 1154-1162.	1.8	71
111	Overview of the Cytoskeleton from an Evolutionary Perspective. Cold Spring Harbor Perspectives in Biology, 2018, 10, a030288.	2.3	71
112	Insights into the Influence of Nucleotides on Actin Family Proteins from Seven Structures of Arp2/3 Complex. Molecular Cell, 2007, 26, 449-457.	4.5	70
113	Polymerization and structure of nucleotide-free actin filaments 1 1Edited by W. Baumeister. Journal of Molecular Biology, 2000, 295, 517-526.	2.0	68
114	Three-dimensional reconstructions of Arp2/3 complex with bound nucleation promoting factors. EMBO Journal, 2012, 31, 236-247.	3.5	67
115	Identification of Functionally Important Residues of Arp2/3 Complex by Analysis of Homology Models from Diverse Species. Journal of Molecular Biology, 2004, 336, 551-565.	2.0	64
116	Determinants of Formin Homology 1 (FH1) Domain Function in Actin Filament Elongation by Formins. Journal of Biological Chemistry, 2012, 287, 7812-7820.	1.6	64
117	Assembly and dynamics of the actin filament system in nonmuscle cells. Journal of Cellular Biochemistry, 1986, 31, 87-95.	1.2	63
118	Elucidation of the poly-l -proline binding site in Acanthamoeba profilin I by NMR spectroscopy. FEBS Letters, 1994, 337, 145-151.	1.3	63
119	Membrane-bound myosin-I provides new mechanisms in cell motility. Cytoskeleton, 1989, 14, 178-182.	4.4	61
120	Kinetics of the Formation and Dissociation of Actin Filament Branches Mediated by Arp2/3 Complex. Biophysical Journal, 2006, 91, 3519-3528.	0.2	61
121	Cytokinetic nodes in fission yeast arise from two distinct types of nodes that merge during interphase. Journal of Cell Biology, 2014, 204, 977-988.	2.3	60
122	Chapter 9 Counting Proteins in Living Cells by Quantitative Fluorescence Microscopy with Internal Standards. Methods in Cell Biology, 2008, 89, 253-273.	0.5	59
123	Myosin-II Tails Confer Unique Functions inSchizosaccharomyces pombe: Characterization of a Novel Myosin-II Tail. Molecular Biology of the Cell, 2000, 11, 79-91.	0.9	58
124	Aip1 Promotes Actin Filament Severing by Cofilin and Regulates Constriction of the Cytokinetic Contractile Ring. Journal of Biological Chemistry, 2015, 290, 2289-2300.	1.6	57
125	Local and global analysis of endocytic patch dynamics in fission yeast using a new â€œtemporal superresolutionâ€•realignment method. Molecular Biology of the Cell, 2014, 25, 3501-3514.	0.9	56
126	Visualizing Arp2/3 complex activation mediated by binding of ATP and WASp using structural mass spectrometry. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1552-1557.	3.3	55

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127	Structure of crystalline actin sheets. Nature, 1980, 288, 296-298.	13.7	54
128	Genomics, the cytoskeleton and motility. Nature, 2001, 409, 842-843.	13.7	50
129	Progressing actin: Formin as a processive elongation machine. Nature Cell Biology, 2004, 6, 1158-1159.	4.6	49
130	Nucleotide-Mediated Conformational Changes of Monomeric Actin and Arp3 Studied by Molecular Dynamics Simulations. Journal of Molecular Biology, 2008, 376, 166-183.	2.0	49
131	Effect of capping protein, CapZ, on the length of actin filaments and mechanical properties of actin filament networks. Cytoskeleton, 1999, 42, 73-81.	4.4	48
132	Force and phosphate release from Arp2/3 complex promote dissociation of actin filament branches. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13519-13528.	3.3	47
133	Stimulation of Acanthamoeba actomyosin ATPase activity by myosin-II polymerization. Nature, 1984, 308, 864-866.	13.7	45
134	Mathematical Models and Simulations of Cellular Processes Based on Actin Filaments*. Journal of Biological Chemistry, 2009, 284, 5433-5437.	1.6	45
135	Incompatibility with Formin Cdc12p Prevents Human Profilin from Substituting for Fission Yeast Profilin. Journal of Biological Chemistry, 2009, 284, 2088-2097.	1.6	45
136	Take advantage of time in your experiments: a guide to simple, informative kinetics assays. Molecular Biology of the Cell, 2013, 24, 1103-1110.	0.9	45
137	Energetic Requirements for Processive Elongation of Actin Filaments by FH1FH2-formins. Journal of Biological Chemistry, 2009, 284, 12533-12540.	1.6	44
138	Anillin-related protein Mid1p coordinates the assembly of the cytokinetic contractile ring in fission yeast. Molecular Biology of the Cell, 2012, 23, 3982-3992.	0.9	44
139	Conformational changes in Arp2/3 complex induced by ATP, WASp-VCA, and actin filaments. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8642-E8651.	3.3	43
140	Structure and Biochemical Properties of Fission Yeast Arp2/3 Complex Lacking the Arp2 Subunit. Journal of Biological Chemistry, 2008, 283, 26490-26498.	1.6	41
141	The fission yeast cytokinetic contractile ring regulates septum shape and closure. Journal of Cell Science, 2015, 128, 3672-81.	1.2	41
142	Synergies between Aip1p and capping protein subunits (Acp1p and Acp2p) in clathrin-mediated endocytosis and cell polarization in fission yeast. Molecular Biology of the Cell, 2014, 25, 3515-3527.	0.9	40
143	Microinjection intoAcanthamoeba castellanii of monoclonal antibodies to myosin-II slows but does not stop cell locomotion. Cytoskeleton, 1989, 12, 42-52.	4.4	39
144	What We Know and Do Not Know About Actin. Handbook of Experimental Pharmacology, 2016, 235, 331-347.	0.9	39

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145	Empowering statistical methods for cellular and molecular biologists. Molecular Biology of the Cell, 2019, 30, 1359-1368.	0.9	38
146	Characterization of Actin and Poly-L-proline Binding Sites ofAcanthamoebaProfilin with Monoclonal Antibodies and by Mutagenesis. Journal of Molecular Biology, 1996, 256, 89-107.	2.0	36
147	Abl2/Abl-related Gene Stabilizes Actin Filaments, Stimulates Actin Branching by Actin-related Protein 2/3 Complex, and Promotes Actin Filament Severing by Cofilin. Journal of Biological Chemistry, 2015, 290, 4038-4046.	1.6	36
148	Cell biology: Actin-binding protein evolution. Nature, 1984, 312, 403-403.	13.7	34
149	Progress towards understanding the mechanism of cytokinesis in fission yeast. Biochemical Society Transactions, 2008, 36, 425-430.	1.6	34
150	Yeast UCS proteins promote actomyosin interactions and limit myosin turnover in cells. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8014-8019.	3.3	33
151	The primary structure of the basic isoform of Acanthamoeba profilin. FEBS Journal, 1988, 170, 597-601.	0.2	32
152	Direct comparison of clathrin-mediated endocytosis in budding and fission yeast reveals conserved and evolvable features. ELife, 2019, 8, .	2.8	31
153	A Subset of Protein Kinase C Phosphorylation Sites on the Myosin II Regulatory Light Chain Inhibits Phosphorylation by Myosin Light Chain Kinaseâ€. Biochemistry, 1997, 36, 2063-2067.	1.2	30
154	Key Structural Features of the Actin Filament Arp2/3 Complex Branch Junction Revealed by Molecular Simulation. Journal of Molecular Biology, 2012, 416, 148-161.	2.0	29
155	Analysis of interphase node proteins in fission yeast by quantitative and superresolution fluorescence microscopy. Molecular Biology of the Cell, 2017, 28, 3203-3214.	0.9	29
156	Regulation of Actin Polymerization and Adhesion-Dependent Cell Edge Protrusion by the Abl-Related Gene (Arg) Tyrosine Kinase and N-WASp. Biochemistry, 2010, 49, 2227-2234.	1.2	28
157	High-speed superresolution imaging of the proteins in fission yeast clathrin-mediated endocytic actin patches. Molecular Biology of the Cell, 2018, 29, 295-303.	0.9	28
158	Purification of Actin from Fission Yeast Schizosaccharomyces pombe and Characterization of Functional Differences from Muscle Actin*. Journal of Biological Chemistry, 2011, 286, 5784-5792.	1.6	27
159	Separate roles of IQGAP Rng2p in forming and constricting theSchizosaccharomyces pombecytokinetic contractile ring. Molecular Biology of the Cell, 2013, 24, 1904-1917.	0.9	27
160	Structural basis for polarized elongation of actin filaments. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30458-30464.	3.3	27
161	Characterization of structural and functional domains of the anillin-related protein Mid1p that contribute to cytokinesis in fission yeast. Molecular Biology of the Cell, 2012, 23, 3993-4007.	0.9	26
162	Three-dimensional Structure of Acanthamoeba castellanii Myosin-IB (MIB) Determined by Cryoelectron Microscopy of Decorated Actin Filaments. Journal of Cell Biology, 1998, 141, 155-162.	2.3	25

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163	Characterization of the roles of Blt1p in fission yeast cytokinesis. Molecular Biology of the Cell, 2014, 25, 1946-1957.	0.9	25
164	A role for F-BAR protein Rga7p during cytokinesis in S. pombe. Journal of Cell Science, 2015, 128, 2259-2268.	1.2	25
165	Gating mechanisms during actin filament elongation by formins. ELife, 2018, 7, .	2.8	25
166	Molecular Dynamics Simulations of Arp2/3 Complex Activation. Biophysical Journal, 2010, 99, 2568-2576.	0.2	24
167	The Value of Mechanistic Biophysical Information for Systems-Level Understanding of Complex Biological Processes Such as Cytokinesis. Biophysical Journal, 2014, 107, 2499-2507.	0.2	24
168	Electrostatic Interactions between the Bni1p Formin FH2 Domain and Actin Influence Actin Filament Nucleation. Structure, 2015, 23, 68-79.	1.6	24
169	Actin assembly produces sufficient forces for endocytosis in yeast. Molecular Biology of the Cell, 2019, 30, 2014-2024.	0.9	24
170	Evaluation of the binding of Acanthamoeba profilin to pyrene-labeled actin by fluorescence enhancement. Analytical Biochemistry, 1988, 168, 148-155.	1.1	22
171	High-Speed Super-Resolution Imaging of Live Fission Yeast Cells. Methods in Molecular Biology, 2016, 1369, 45-57.	0.4	22
172	Nano-scale actin-network characterization of fibroblast cells lacking functional Arp2/3 complex. Journal of Structural Biology, 2017, 197, 312-321.	1.3	21
173	The Functionally Important N-Terminal Half of Fission Yeast Mid1p Anillin Is Intrinsically Disordered and Undergoes Phase Separation. Biochemistry, 2019, 58, 3031-3041.	1.2	21
174	Cell Motility and Cytokinesis: From Mysteries to Molecular Mechanisms in Five Decades. Annual Review of Cell and Developmental Biology, 2019, 35, 1-28.	4.0	20
175	Influence of Phalloidin on the Formation of Actin Filament Branches by Arp2/3 Complex. Biochemistry, 2008, 47, 6460-6467.	1.2	17
176	Cryo-electron microscopy structures of pyrene-labeled ADP-Pi- and ADP-actin filaments. Nature Communications, 2020, 11, 5897.	5.8	16
177	Nucleotide- and Activator-Dependent Structural and Dynamic Changes of Arp2/3 Complex Monitored by Hydrogen/Deuterium Exchange and Mass Spectrometry. Journal of Molecular Biology, 2009, 390, 414-427.	2.0	15
178	The septation initiation network controls the assembly of nodes containing Cdr2p for cytokinesis in fission yeast. Journal of Cell Science, 2014, 128, 441-6.	1.2	15
179	STRUCTURAL BIOLOGY: Actin' Up. Science, 2001, 293, 616-618.	6.0	15
180	Formins Coming into Focus. Developmental Cell, 2004, 6, 312-314.	3.1	14

#	Article	IF	Citations
181	The Chemical Mechanism of Myosin-I: Implications for Actin-based Motility and the Evolution of the Myosin Family of Motor Proteins.. Cell Structure and Function, 1996, 21, 351-356.	0.5	13
182	Functional genomics of cell morphology using RNA interference: pick your style, broad or deep. , 2003, 2, 25.		13
183	Measuring Affinities of Fission Yeast Spindle Pole Body Proteins in Live Cells across the Cell Cycle. Biophysical Journal, 2013, 105, 1324-1335.	0.2	13
184	Counting actin in contractile rings reveals novel contributions of cofilin and type II myosins to fission yeast cytokinesis. Molecular Biology of the Cell, 2022, 33, mbcE21080376.	0.9	13
185	No Question about Exciting Questions in Cell Biology. PLoS Biology, 2013, 11, e1001734.	2.6	12
186	Mechanism of actin filament nucleation. Biophysical Journal, 2021, 120, 4399-4417.	0.2	12
187	Ray rappaport chronology: Twenty-five years of seminal papers on cytokinesis in the journal of experimental zoology. The Journal of Experimental Zoology, 2004, 301A, 9-14.	1.4	11
188	The Obligation for Biologists to Commit to Political Advocacy. Cell, 2012, 151, 239-243.	13.5	11
189	Crystals of the Arp2/3 complex in two new space groups with structural information about actin-related protein 2 and potential WASP binding sites. Acta Crystallographica Section F, Structural Biology Communications, 2015, 71, 1161-1168.	0.4	9
190	Fission yeast Myo2: Molecular organization and diffusion in the cytoplasm. Cytoskeleton, 2018, 75, 164-173.	1.0	9
191	Proteins as machines. Nature, 1992, 355, 17-18.	13.7	8
192	Platelet Contractile Proteins. Thrombosis and Haemostasis, 1979, 42, 1634-1637.	1.8	8
193	Cytoskeleton: Myosin filaments in cytoplasm. Nature, 1985, 314, 321-321.	13.7	7
194	Microtubule nucleation promoters Mto1 and Mto2 regulate cytokinesis in fission yeast. Molecular Biology of the Cell, 2020, 31, 1846-1856.	0.9	7
195	Myosins in Cytokinesis. Advances in Experimental Medicine and Biology, 2020, 1239, 233-244.	0.8	7
196	Theory from the Oster Laboratory Leaps Ahead of Experiment in Understanding Actin-Based Cellular Motility. Biophysical Journal, 2016, 111, 1589-1592.	0.2	6
197	Involvement of Septation Initiation Network (SIN) in events during cytokinesis in fission yeast. Journal of Cell Science, 2018, 131, .	1.2	6
198	Sample Preparation and Imaging Conditions Affect mEos3.2 Photophysics in Fission Yeast Cells. Biophysical Journal, 2021, 120, 21-34.	0.2	5

#	Article	IF	Citations
199	Phosphorylation of Arp2 is not essential for Arp2/3 complex activity in fission yeast. Life Science Alliance, 2018, 1, e201800202.	1.3	5
200	Cellular motility powered by actin filament assembly and disassembly. Harvey Lectures, 2002, 98, 1-17.	0.2	5
201	Response to Zambon et al.. Current Biology, 2017, 27, R101-R102.	1.8	4
202	Evolution of research on cellular motility over five decades. Biophysical Reviews, 2018, 10, 1503-1508.	1.5	4
203	Meeting highlights, critique, and perspectives. Cell Motility, 1983, 3, 693-697.	1.9	3
204	Life scientists and politics in the United States. Nature Reviews Molecular Cell Biology, 2001, 2, 929-931.	16.1	3
205	A model of actin-driven endocytosis explains differences of endocytic motility in budding and fission yeast. Molecular Biology of the Cell, 2022, 33, mbcE21070362.	0.9	3
206	Remembrance of Ray Rappaport, pioneer in the study of cytokinesis. Cytoskeleton, 2012, 69, 659-669.	1.0	2
207	Remembrance of Hugh E. Huxley, a founder of our field. Cytoskeleton, 2013, 70, 471-475.	1.0	2
208	Mechanistic biological modeling thrives. Science, 2016, 351, 234-235.	6.0	2
209	Tribute to Fumio Oosawa the pioneer in actin biophysics. Cytoskeleton, 2017, 74, 446-449.	1.0	2
210	Origin of eukaryotes: What can be learned from the first successfully isolated Asgard archaeon. Faculty Reviews, 2022, 11, 3.	1.7	2
211	John Heuser's contributions to the visualization of the actin cytoskeleton by electron microscopy. European Journal of Cell Biology, 2004, 83, 253-255.	1.6	1
212	Political advocacy by the American Society for Cell Biology and its partners. Molecular Biology of the Cell, 2012, 23, 4171-4174.	0.9	1
213	New Light on Growth Cone Navigation. Developmental Cell, 2015, 35, 672-673.	3.1	1
214	Effect of capping protein, CapZ, on the length of actin filaments and mechanical properties of actin filament networks. , 1999, 42, 73.		1
215	Molecular Mechanisms Regulating Actin Filament Dynamics at the Leading Edge of Motile Cells. , 0, , 1-17.		0
216	Analyzing the Interaction of ADF/Cofilin with Actin through Molecular Dynamics Simulations. , 2009, , .		0

#	Article	IF	Citations
217	Formin Tip Tracking. Science, 2011, 331, 39-41.	6.0	0
218	A Third Look at the Structure of Leiomodin Bound to Actin. Biophysical Journal, 2017, 113, 762-764.	0.2	0
219	Molecular basis of cytokinesis in fission yeast. FASEB Journal, 2008, 22, 115.2.	0.2	0