Marie-france Carlier

List of Publications by Year
in descending order

95 papers	13,532 citations	22153 59 h-index	42399 92 g-index
155 all docs	155 docs citations	155 times ranked	9219 citing authors

#	Article	IF	Citations
1	Global treadmilling coordinates actin turnover and controls the size of actin networks. Nature Reviews Molecular Cell Biology, 2017, 18, 389-401.	37.0	109
2	FMNL formins boost lamellipodial force generation. Nature Communications, 2017, 8, 14832.	12.8	112
3	Efficiency of lamellipodia protrusion is determined by the extent of cytosolic actin assembly. Molecular Biology of the Cell, 2017, 28, 1311-1325.	2.1	41
4	Enhanced Depolymerization of Actin Filaments by ADF/Cofilin and Monomer Funneling by Capping Protein Cooperate to Accelerate Barbed-End Growth. Current Biology, 2017, 27, 1990-1998.e5.	3.9	59
5	Single-filament kinetic studies provide novel insights into regulation of actin-based motility. Molecular Biology of the Cell, 2016, 27, 1-6.	2.1	22
6	Profilin Interaction with Actin Filament Barbed End Controls Dynamic Instability, Capping, Branching, and Motility. Developmental Cell, 2016, 36, 201-214.	7.0	99
7	Isoform diversity in the Arp2/3 complex determines actin filament dynamics. Nature Cell Biology, 2016, 18, 76-86.	10.3	174
8	Role of the C-terminal Extension of Formin 2 in Its Activation by Spire Protein and Processive Assembly of Actin Filaments. Journal of Biological Chemistry, 2016, 291, 3302-3318.	3.4	10
9	Regulators of actin filament barbed ends at a glance. Journal of Cell Science, 2016, 129, 1085-91.	2.0	80
10	Control of polarized assembly of actin filaments in cell motility. Cellular and Molecular Life Sciences, 2015, 72, 3051-3067.	5.4	96
11	Formin and capping protein together embrace the actin filament in a mÃ©nage Ã trois. Nature Communications, 2015, 6, 8730.	12.8	80
12	Dimeric WH2 repeats of VopF sequester actin monomers into non-nucleating linear string conformations: An X-ray scattering study. Journal of Structural Biology, 2015, 190, 192-199.	2.8	14
13	Electron Tomography and Simulation of Baculovirus Actin Comet Tails Support a Tethered Filament Model of Pathogen Propulsion. PLoS Biology, 2014, 12, e1001765.	5.6	51
14	Spire and Formin 2 Synergize and Antagonize in Regulating Actin Assembly in Meiosis by a Ping-Pong Mechanism. PLoS Biology, 2014, 12, e1001795.	5.6	76
15	Actin Filament Dynamics Using Microfluidics. Methods in Enzymology, 2014, 540, 3-17.	1.0	19
16	Mutagenetic and electron microscopy analysis of actin filament severing by Cordonâ€Bleu, a WH2 domain protein. Cytoskeleton, 2014, 71, 170-183.	2.0	13
17	Control of actin filament dynamics at barbed ends by WH2 domains: From capping to permissive and processive assembly. Cytoskeleton, 2013, 70, 540-549.	2.0	20
18	Formin mDia1 senses and generates mechanical forces on actin filaments. Nature Communications, 2013, 4, 1883.	12.8	190

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19	Dimeric WH2 domains in VibrioÂVopF promote actin filament barbed-end uncapping and assisted elongation. Nature Structural and Molecular Biology, 2013, 20, 1069-1076.	8.2	44
20	Interactions of Isolated C-terminal Fragments of Neural Wiskott-Aldrich Syndrome Protein (N-WASP) with Actin and Arp2/3 Complex. Journal of Biological Chemistry, 2012, 287, 34646-34659.	3.4	38
21	Intermittent depolymerization of actin filaments is caused by photo-induced dimerization of actin protomers. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10769-10774.	7.1	36
22	How a single residue in individual Î²-thymosin/WH2 domains controls their functions in actin assembly. EMBO Journal, 2012, 31, 1000-1013.	7.8	53
23	Cordon-Bleu Uses WH2 Domains as Multifunctional Dynamizers of Actin Filament Assembly. Molecular Cell, 2011, 43, 464-477.	9.7	55
24	Force-Velocity Measurements of a Few Growing Actin Filaments. PLoS Biology, 2011, 9, e1000613.	5.6	44
25	Microfluidics pushes forward microscopy analysis of actin dynamics. Bioarchitecture, 2011, 1, 271-276.	1.5	17
26	Control of Actin Assembly by the WH2 Domains and Their Multifunctional Tandem Repeats in Spire and Cordon-Bleu. International Review of Cell and Molecular Biology, 2011, 290, 55-85.	3.2	34
27	The IQGAP1 Protein Is a Calmodulin-regulated Barbed End Capper of Actin Filaments. Journal of Biological Chemistry, 2011, 286, 35119-35128.	3.4	43
28	Individual Actin Filaments in a Microfluidic Flow Reveal the Mechanism of ATP Hydrolysis and Give Insight Into the Properties of Profilin. PLoS Biology, 2011, 9, e1001161.	5.6	138
29	How tropomyosin regulates lamellipodial actin-based motility: a combined biochemical and reconstituted motility approach. EMBO Journal, 2010, 29, 14-26.	7.8	48
30	Molecular Basis for the Dual Function of Eps8 on Actin Dynamics: Bundling and Capping. PLoS Biology, 2010, 8, e1000387.	5.6	91
31	Control of Actin Filament Treadmilling in Cell Motility. Annual Review of Biophysics, 2010, 39, 449-470.	10.0	297
32	From Molecules to Movement: In Vitro Reconstitution of Self-Organized Actin-based Motile Processes. , 2010, , 237-254.		2
33	How do in vitro reconstituted actinâ€based motility assays provide insight into in vivo behavior?. FEBS Letters, 2008, 582, 2086-2092.	2.8	14
34	Spire and Cordon-bleu: multifunctional regulators of actin dynamics. Trends in Cell Biology, 2008, 18, 494-504.	7.9	72
35	Arp2/3 Controls the Motile Behavior of N-WASP-Functionalized GUVs and Modulates N-WASP Surface Distribution by Mediating Transient Links with Actin Filaments. Biophysical Journal, 2008, 94, 4890-4905.	0.5	50
36	Regulation of Actin Assembly Associated With Protrusion and Adhesion in Cell Migration. Physiological Reviews, 2008, 88, 489-513.	28.8	699

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37	The Pleckstrin Homology Domain of the Arf6-specific Exchange Factor EFA6 Localizes to the Plasma Membrane by Interacting with Phosphatidylinositol 4,5-Bisphosphate and F-actin. Journal of Biological Chemistry, 2008, 283, 19836-19844.	3.4	52
38	How ATP Hydrolysis Controls Filament Assembly from Profilin-Actin. Journal of Biological Chemistry, 2007, 282, 8435-8445.	3.4	70
39	IQGAP1 Stimulates Actin Assembly through the N-Wasp-Arp2/3 Pathway. Journal of Biological Chemistry, 2007, 282, 426-435.	3.4	135
40	Control of Actin Assembly Dynamics in Cell Motility. Journal of Biological Chemistry, 2007, 282, 23005-23009.	3.4	157
41	Analysis of the Function of Spire in Actin Assembly and Its Synergy with Formin and Profilin. Molecular Cell, 2007, 28, 555-568.	9.7	98
42	Structural basis and evolutionary origin of actin filament capping by twinfilin. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3113-3118.	7.1	67
43	Structure, Function, and Evolution of the beta-Thymosin/WH2 (WASP-Homology2) Actin-Binding Module. Annals of the New York Academy of Sciences, 2007, 1112, 67-75.	3.8	26
44	Measurements of Stathmin-Tubulin Interaction in Solution. Methods in Molecular Medicine, 2007, 137, 103-110.	0.8	3
45	How Actin Assembly Is Modulated at Filament Barbed Ends in Motile Processes. , 2007, , 1-10.		0
46	Characterization of TccP-mediated N-WASP activation during enterohaemorrhagic Escherichia coli infection. Cellular Microbiology, 2006, 8, 1444-1455.	2.1	47
47	Mammalian twinfilin sequesters ADP-G-actin and caps filament barbed ends: implications in motility. EMBO Journal, 2006, 25, 1184-1195.	7.8	84
48	Analysis of Tetramethylrhodamine-labeled Actin Polymerization and Interaction with Actin Regulatory Proteins. Journal of Biological Chemistry, 2006, 281, 24036-24047.	3.4	14
49	Abi1 regulates the activity of N-WASP and WAVE in distinct actin-based processes. Nature Cell Biology, 2005, 7, 969-976.	10.3	201
50	An Electrostatic Steering Mechanism of Cdc42 Recognition by Wiskott-Aldrich Syndrome Proteins. Molecular Cell, 2005, 20, 313-324.	9.7	117
51	Coupling of Folding and Binding of Thymosin Î²4 upon Interaction with Monomeric Actin Monitored by Nuclear Magnetic Resonance. Journal of Biological Chemistry, 2004, 279, 23637-23645.	3.4	97
52	Forces generated during actin-based propulsion: A direct measurement by micromanipulation. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5992-5997.	7.1	225
53	TccP is an enterohaemorrhagic Escherichia coli O157:H7 type III effector protein that couples Tir to the actin-cytoskeleton+. Cellular Microbiology, 2004, 6, 1167-1183.	2.1	261
54	Eps8 controls actin-based motility by capping the barbed ends of actin filaments. Nature Cell Biology, 2004, 6, 1180-1188.	10.3	197

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55	Actin-Based Motility Assay. , 2004, Chapter 12, Unit 12.7.		12
56	Formin Is a Processive Motor that Requires Profilin to Accelerate Actin Assembly and Associated ATP Hydrolysis. Cell, 2004, 119, 419-429.	28.9	515
57	The Î²-Thymosin/WH2 Domain. Cell, 2004, 117, 611-623.	28.9	201
58	Actinâ€based motility: from molecules to movement. BioEssays, 2003, 25, 336-345.	2.5	139
59	Fluorescence correlation spectroscopy analysis of the dynamics of tubulin interaction with RB3, a stathmin family protein. FEBS Letters, 2003, 546, 365-368.	2.8	6
60	Actin-based motility as a self-organized system: mechanism and reconstitution in vitro. Comptes Rendus - Biologies, 2003, 326, 161-170.	0.2	48
61	ATP hydrolysis on actin-related protein 2/3 complex causes debranching of dendritic actin arrays. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6337-6342.	7.1	80
62	A biomimetic motility assay provides insight into the mechanism of actin-based motility. Journal of Cell Biology, 2003, 160, 387-398.	5.2	180
63	The Effect of Stathmin Phosphorylation on Microtubule Assembly Depends on Tubulin Critical Concentration. Journal of Biological Chemistry, 2002, 277, 22718-22724.	3.4	43
64	Control of Actin Dynamics by Proteins Made of Î²-Thymosin Repeats. Journal of Biological Chemistry, 2002, 277, 14786-14792.	3.4	62
65	13 Actin-based Motility of Listeria monocytogenes and Shigella flexeneri. Methods in Microbiology, 2002, , 245-262.	0.8	4
66	The dynamics of actin-based motility depend on surface parameters. Nature, 2002, 417, 308-311.	27.8	224
67	Listeria Protein ActA Mimics WASP Family Proteins:Â It Activates Filament Barbed End Branching by Arp2/3 Complex. Biochemistry, 2001, 40, 11390-11404.	2.5	112
68	Mechanism of Actin-Based Motility. Science, 2001, 292, 1502-1506.	12.6	631
69	Activation of Arp2/3 Complex by Wiskott-Aldrich Syndrome Protein Is Linked to Enhanced Binding of ATP to Arp2. Journal of Biological Chemistry, 2001, 276, 46689-46692.	3.4	63
70	The Arp2/3 complex branches filament barbed ends: functional antagonism with capping proteins. Nature Cell Biology, 2000, 2, 385-391.	10.3	219
71	Measurement of the elasticity of the actin tail of Listeria monocytogenes. European Biophysics Journal, 2000, 29, 134-140.	2.2	86
72	GRB2 Links Signaling to Actin Assembly by Enhancing Interaction of Neural Wiskott-Aldrich Syndrome Protein (N-WASp) with Actin-related Protein (ARP2/3) Complex. Journal of Biological Chemistry, 2000, 275, 21946-21952.	3.4	186

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73	Ciboulot Regulates Actin Assembly during Drosophila Brain Metamorphosis. Cell, 2000, 102, 797-808.	28.9	106
74	Stathmin Slows down Guanosine Diphosphate Dissociation from Tubulin in a Phosphorylation-Controlled Fashion. Biochemistry, 2000, 39, 12295-12302.	2.5	27
75	Control of Actin Filament Length and Turnover by Actin Depolymerizing Factor (ADF/Cofilin) in the Presence of Capping Proteins and ARP2/3 Complex. Journal of Biological Chemistry, 1999, 274, 20970-20976.	3.4	66
76	Filament Assembly from Profilin-Actin. Journal of Biological Chemistry, 1999, 274, 6234-6243.	3.4	76
77	Activation of the Cdc42 Effector N-Wasp by the Shigella flexneri Icsa Protein Promotes Actin Nucleation by Arp2/3 Complex and Bacterial Actin-Based Motility. Journal of Cell Biology, 1999, 146, 1319-1332.	5.2	494
78	Role of Proteins of the Ena/VASP Family in Actin-based Motility of Listeria monocytogenes. Journal of Cell Biology, 1999, 144, 1245-1258.	5.2	331
79	Control of Actin Dynamics in Cell Motility. Journal of Biological Chemistry, 1999, 274, 33827-33830.	3.4	185
80	Signalling to actin: the Cdc42-N-WASP-Arp2/3 connection. Chemistry and Biology, 1999, 6, R235-R240.	6.0	77
81	Reconstitution of actin-based motility of Listeria and Shigella using pure proteins. Nature, 1999, 401, 613-616.	27.8	924
82	Control of actin dynamics. Current Opinion in Cell Biology, 1998, 10, 45-51.	5.4	188
83	Synergy between Actin Depolymerizing Factor/Cofilin and Profilin in Increasing Actin Filament Turnover. Journal of Biological Chemistry, 1998, 273, 25602-25611.	3.4	180
84	Kinetic Analysis of the Interaction of Actin-depolymerizing Factor (ADF)/Cofilin with G- and F-Actins. Journal of Biological Chemistry, 1998, 273, 20894-20902.	3.4	172
85	Actin Depolymerizing Factor (ADF/Cofilin) Enhances the Rate of Filament Turnover: Implication in Actin-based Motility. Journal of Cell Biology, 1997, 136, 1307-1322.	5.2	948
86	Stathmin:Â A Tubulin-Sequestering Protein Which Forms a Ternary T2S Complex with Two Tubulin Moleculesâ€. Biochemistry, 1997, 36, 10817-10821.	2.5	223
87	Control of actin dynamics in cell motility. Journal of Molecular Biology, 1997, 269, 459-467.	4.2	283
88	Role of Nucleotide Exchange and Hydrolysis in the Function of Profilin in Actin Assembly. Journal of Biological Chemistry, 1996, 271, 12302-12309.	3.4	139
89	TÎ²4 Is Not a Simple G-actin Sequestering Protein and Interacts with F-actin at High Concentration. Journal of Biological Chemistry, 1996, 271, 9231-9239.	3.4	73
90	Kinetics of Association of Myosin Subfragment-1 to Unlabeled and Pyrenyl-labeled Actin. Journal of Biological Chemistry, 1996, 271, 12380-12386.	3.4	22

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91	Flexibility of Actin Filaments Derived from Thermal Fluctuations. Journal of Biological Chemistry, 1995, 270, 11437-11444.	3.4	538
92	Interaction of G-actin with thymosin ?4 and its variants thymosin ?9 and thymosin ? 9 met. Journal of Muscle Research and Cell Motility, 1994, 15, 278-86.	2.0	48
93	Actin assembly in response to extracellular signals: role of capping proteins, thymosin Î²4 and profilin. Seminars in Cell Biology, 1994, 5, 183-191.	3.4	70
94	Interaction of Profilin with G-Actin and Poly(L-Proline). Biochemistry, 1994, 33, 8472-8478.	2.5	120
95	How profilin promotes actin filament assembly in the presence of thymosin Î²4. Cell, 1993, 75, 1007-1014.	28.9	540