Roger Craig

List of Publications by Year
in descending order

118 papers	7,841 citations	47409 49 h-index	60403 85 g-index
120 all docs	120 docs citations	120 times ranked	3625 citing authors

#	Article	IF	Citations
1	Interacting-heads motif explains the X-ray diffraction pattern of relaxed vertebrate skeletal muscle. Biophysical Journal, 2022, 121, 1354-1366.	0.2	9
2	Structural basis of the super- and hyper-relaxed states of myosin II. Journal of General Physiology, 2022, 154, .	0.9	46
3	Relaxed tarantula skeletal muscle has two ATP energy-saving mechanisms. Journal of General Physiology, 2021, 153, .	0.9	13
4	The N terminus of myosin-binding protein C extends toward actin filaments in intact cardiac muscle. Journal of General Physiology, 2021, 153, .	0.9	30
5	Fast skeletal myosin-binding protein-C regulates fast skeletal muscle contraction. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	19
6	Amino terminus of cardiac myosin binding protein-C regulates cardiac contractility. Journal of Molecular and Cellular Cardiology, 2021, 156, 33-44.	0.9	17
7	The mesa trail and the interacting heads motif of myosin II. Archives of Biochemistry and Biophysics, 2020, 680, 108228.	1.4	16
8	Cryo-EM structure of the inhibited (10S) form of myosin II. Nature, 2020, 588, 521-525.	13.7	59
9	The myosin interacting-heads motif present in live tarantula muscle explains tetanic and posttetanic phosphorylation mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11865-11874.	3.3	35
10	The central role of the tail in switching off 10S myosin II activity. Journal of General Physiology, 2019, 151, 1081-1093.	0.9	15
11	Lattice arrangement of myosin filaments correlates with fiber type in rat skeletal muscle. Journal of General Physiology, 2019, 151, 1404-1412.	0.9	12
12	Resolving the Actin Lattice and Identifying the Relative Position of MYBP-C's N-Terminus in Cardiac Muscle using Storm Microscopy. Biophysical Journal, 2019, 116, 116a.	0.2	0
13	Altered C10 domain in cardiac myosin binding protein-C results in hypertrophic cardiomyopathy. Cardiovascular Research, 2019, 115, 1986-1997.	1.8	19
14	Getting into the thick (and thin) of it. Journal of General Physiology, 2019, 151, 610-613.	0.9	15
15	Interacting-heads motif has been conserved as a mechanism of myosin II inhibition since before the origin of animals. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1991-E2000.	3.3	70
16	Skeletal myosin binding protein-C isoforms regulate thin filament activity in a Ca2+-dependent manner. Scientific Reports, 2018, 8, 2604.	1.6	38
17	Phosphorylation of cardiac myosin binding protein C releases myosin heads from the surface of cardiac thick filaments. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1355-E1364.	3.3	67
18	Molecular Structure of Muscle Filaments Determined by Electron Microscopy. Applied Microscopy, 2017, 47, 226-232.	0.8	6

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19	An approach to improve the resolution of helical filaments with a large axial rise and flexible subunits. Journal of Structural Biology, 2016, 193, 45-54.	1.3	18
20	Phosphorylation and Calcium Antagonistically Tune Myosin-Binding Protein C's Molecular Structure and Function. Biophysical Journal, 2016, 110, 293a.	0.2	1
21	Myosin II Head Interaction in Primitive Species. Biophysical Journal, 2016, 110, 615a.	0.2	3
22	The cMyBP-C HCM variant L348P enhances thin filament activation through an increased shift in tropomyosin position. Journal of Molecular and Cellular Cardiology, 2016, 91, 141-147.	0.9	19
23	Phosphorylation and calcium antagonistically tune myosin-binding protein Câ€™s structure and function. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3239-3244.	3.3	84
24	Pacemaker-induced transient asynchrony suppresses heart failure progression. Science Translational Medicine, 2015, 7, 319ra207.	5.8	31
25	The Inhibited, Interacting-Heads Motif Characterizes Myosin II from the Earliest Animals with Muscles. Biophysical Journal, 2015, 108, 301a.	0.2	4
26	Orientation of Myosin Binding Protein C in the Cardiac Muscle Sarcomere Determined by Domain-Specific Immuno-EM. Journal of Molecular Biology, 2015, 427, 274-286.	2.0	43
27	Myosin-binding protein C corrects an intrinsic inhomogeneity in cardiac excitation-contraction coupling. Science Advances, 2015, 1, .	4.7	69
28	Through Thick and Thinâ€"Interfilament Communication inÂMuscle. Biophysical Journal, 2015, 109, 665-667.	0.2	11
29	An invertebrate smooth muscle with striated muscle myosin filaments. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5660-8.	3.3	52
30	Three-Dimensional Organization of Troponin on Cardiac Muscle Thin Filaments in the Relaxed State. Biophysical Journal, 2014, 106, 855-864.	0.2	46
31	Myosin-binding protein C displaces tropomyosin to activate cardiac thin filaments and governs their speed by an independent mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2170-2175.	3.3	127
32	Structure, sarcomeric organization, and thin filament binding of cardiac myosin-binding protein-C. Pflugers Archiv European Journal of Physiology, 2014, 466, 425-431.	1.3	44
33	Different Head Environments in Tarantula Thick Filaments Support aÂCooperative Activation Process. Biophysical Journal, 2013, 105, 2114-2122.	0.2	22
34	Specific Charged Residues on the Myosin Heavy Chain (K368 and R406) Contribute to Head Interaction of Relaxed Smooth Muscle Myosin. Biophysical Journal, 2013, 104, 452a.	0.2	0
35	Structural basis of the relaxed state of a Ca ²⁺ -regulated myosin filament and its evolutionary implications. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8561-8566.	3.3	48
36	Cardiac Myosin Binding Protein-C Plays No Regulatory Role in Skeletal Muscle Structure and Function. PLoS ONE, 2013, 8, e69671.	1.1	32

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37	Isolation, electron microscopy and 3D reconstruction of invertebrate muscle myofilaments. Methods, 2012, 56, 33-43.	1.9	9
38	Tropomyosin Position on F-Actin Revealed by EM Reconstruction and Computational Chemistry. Biophysical Journal, 2011, 100, 1005-1013.	0.2	147
39	Mechanism of the Ca2+-Dependent Interaction between S100A4 and Tail Fragments of Nonmuscle Myosin Heavy Chain IIA. Journal of Molecular Biology, 2011, 405, 1004-1026.	2.0	35
40	Electron Microscopy and 3D Reconstruction of F-Actin Decorated with Cardiac Myosin-Binding Protein C (cMyBP-C). Journal of Molecular Biology, 2011, 410, 214-225.	2.0	67
41	A Molecular Model of Phosphorylation-Based Activation and Potentiation of Tarantula Muscle Thick Filaments. Journal of Molecular Biology, 2011, 414, 44-61.	2.0	61
42	Modulation of striated muscle contraction by binding of myosin binding protein C to actin. Bioarchitecture, 2011, 1, 277-283.	1.5	16
43	Direct visualization of myosin-binding protein C bridging myosin and actin filaments in intact muscle. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11423-11428.	3.3	159
44	The C Terminus of Cardiac Troponin I Stabilizes the Ca ²⁺ -Activated State of Tropomyosin on Actin Filaments. Circulation Research, 2010, 106, 705-711.	2.0	55
45	Electron microscopy and three-dimensional reconstruction of native thin filaments reveal species-specific differences in regulatory strand densities. Biochemical and Biophysical Research Communications, 2010, 391, 193-197.	1.0	2
46	The tail binds to the headâ€“neck domain, inhibiting ATPase activity of myosin VIIA. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8483-8488.	3.3	78
47	Analysis of tarantula skeletal muscle protein sequences and identification of transcriptional isoforms. BMC Genomics, 2009, 10, 117.	1.2	23
48	Headâ€“Head Interaction Characterizes the Relaxed State of Limulus Muscle Myosin Filaments. Journal of Molecular Biology, 2009, 385, 423-431.	2.0	68
49	Structural Basis for the Activation of Muscle Contraction by Troponin and Tropomyosin. Journal of Molecular Biology, 2009, 388, 673-681.	2.0	77
50	Blebbistatin Stabilizes the Helical Order of Myosin Filaments by Promoting the Switch 2 Closed State. Biophysical Journal, 2008, 95, 3322-3329.	0.2	47
51	Structural Basis for the Regulation of Muscle Contraction by Troponin and Tropomyosin. Journal of Molecular Biology, 2008, 379, 929-935.	2.0	152
52	Millisecond Time-Resolved Changes Occurring in Ca2+-Regulated Myosin Filaments upon Relaxation. Journal of Molecular Biology, 2008, 381, 256-260.	2.0	9
53	Ca2+-Induced Tropomyosin Movement in Scallop Striated Muscle Thin Filaments. Journal of Molecular Biology, 2008, 383, 512-519.	2.0	12
54	Understanding the Organisation and Role of Myosin Binding Protein C in Normal Striated Muscle by Comparison with MyBP-C Knockout Cardiac Muscle. Journal of Molecular Biology, 2008, 384, 60-72.	2.0	117

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55	Three-Dimensional Reconstruction of Tarantula Myosin Filaments Suggests How Phosphorylation May Regulate Myosin Activity. Journal of Molecular Biology, 2008, 384, 780-797.	2.0	132
56	The globular tail domain puts on the brake to stop the ATPase cycle of myosin Va. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1140-1145.	3.3	65
57	Three-dimensional structure of vertebrate cardiac muscle myosin filaments. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2386-2390.	3.3	232
58	Headâ€"Head and Headâ€"Tail Interaction: A General Mechanism for Switching Off Myosin II Activity in Cells. Molecular Biology of the Cell, 2008, 19, 3234-3242.	0.9	168
59	Fast skeletal muscle regulatory light chain is required for fast and slow skeletal muscle development. FASEB Journal, 2007, 21, 2205-2214.	0.2	38
60	An Atomic Model of the Thin Filament in the Relaxed and Ca2+-Activated States. Journal of Molecular Biology, 2006, 357, 707-717.	2.0	130
61	Structure and function of myosin filaments. Current Opinion in Structural Biology, 2006, 16, 204-212.	2.6	188
62	The Globular Tail Domain of Myosin Va Functions as an Inhibitor of the Myosin Va Motor. Journal of Biological Chemistry, 2006, 281, 21789-21798.	1.6	78
63	Atomic model of a myosin filament in the relaxed state. Nature, 2005, 436, 1195-1199.	13.7	303
64	Mini-thin filaments regulated by troponin-tropomyosin. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 656-661.	3.3	29
65	Single Particle Analysis of Relaxed and Activated Muscle Thin Filaments. Journal of Molecular Biology, 2005, 346, 761-772.	2.0	111
66	E93K Charge Reversal on Actin Perturbs Steric Regulation of Thin Filaments. Journal of Molecular Biology, 2005, 347, 889-894.	2.0	8
67	Modes of Caldesmon Binding to Actin. Journal of Biological Chemistry, 2004, 279, 53387-53394.	1.6	45
68	An open or closed case for the conformation of calponin homology domains on F-actin?. Journal of Muscle Research and Cell Motility, 2004, 25, 351-358.	0.9	19
69	The structure of the vertebrate striated muscle thin filament: a tribute to the contributions of Jean Hanson. Journal of Muscle Research and Cell Motility, 2004, 25, 455-466.	0.9	7
70	Drosophila Muscle Regulation Characterized by Electron Microscopy and Three-Dimensional Reconstruction of Thin Filament Mutants. Biophysical Journal, 2004, 86, 1618-1624.	0.2	40
71	Ca2+ Causes Release of Myosin Heads from the Thick Filament Surface on the Milliseconds Time Scale. Journal of Molecular Biology, 2003, 327, 145-158.	2.0	27
72	An Atomic Model for Actin Binding by the CH Domains and Spectrin-repeat Modules of Utrophin and Dystrophin. Journal of Molecular Biology, 2003, 329, 15-33.	2.0	69

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73	Heterogeneity of Z-band Structure Within a Single Muscle Sarcomere: Implications for Sarcomere Assembly. Journal of Molecular Biology, 2003, 332, 161-169.	2.0	35
74	The Troponin Tail Domain Promotes a Conformational State of the Thin Filament That Suppresses Myosin Activity. Journal of Biological Chemistry, 2002, 277, 27636-27642.	1.6	88
75	Mass Determination of Native Smooth Muscle Myosin Filaments by Scanning Transmission Electron Microscopy. Journal of Molecular Biology, 2002, 318, 999-1007.	2.0	26
76	Capturing Transient Molecular Structures on the Millisecond Time Scale for EM Imaging. Microscopy and Microanalysis, 2002, 8, 828-829.	0.2	2
77	The Ultrastructural Basis of Actin Filament Regulation. Results and Problems in Cell Differentiation, 2002, 36, 149-169.	0.2	8
78	Troponin organization on relaxed and activated thin filaments revealed by electron microscopy and three-dimensional reconstruction11Edited by W. Baumeister. Journal of Molecular Biology, 2001, 307, 739-744.	2.0	90
79	Crossbridge and tropomyosin positions observed in native, interacting thick and thin filaments11Edited by W. Baumeister. Journal of Molecular Biology, 2001, 311, 1027-1036.	2.0	126
80	Purification of Native Myosin Filaments from Muscle. Biophysical Journal, 2001, 81, 2817-2826.	0.2	27
81	Mechanism of phosphorylation of the regulatory light chain of myosin from tarantula striated muscle. Journal of Muscle Research and Cell Motility, 2001, 22, 51-59.	0.9	22
82	Effects of a Cardiomyopathy-causing Troponin T Mutation on Thin Filament Function and Structure. Journal of Biological Chemistry, 2001, 276, 20788-20794.	1.6	23
83	The Tip of the Coiled-coil Rod Determines the Filament Formation of Smooth Muscle and Nonmuscle Myosin. Journal of Biological Chemistry, 2001, 276, 30293-30300.	1.6	53
84	Myosin light chain kinase binding to a unique site on F-actin revealed by three-dimensional image reconstruction. Journal of Cell Biology, 2001, 154, 611-618.	2.3	40
85	An Actin Subdomain 2 Mutation That Impairs Thin Filament Regulation by Troponin and Tropomyosin. Journal of Biological Chemistry, 2000, 275, 22470-22478.	1.6	20
86	Tropomyosin and actin isoforms modulate the localization of tropomyosin strands on actin filaments. Journal of Molecular Biology, 2000, 302, 593-606.	2.0	235
87	An atomic model of fimbrin binding to F-actin and its implications for filament crosslinking and regulation. Nature Structural Biology, 1998, 5, 787-792.	9.7	124
88	Towards an atomic model of the thick filaments of muscle 1 1Edited by W. Baumeister. Journal of Molecular Biology, 1998, 275, 35-41.	2.0	23
89	Functional Analysis of Tpr: Identification of Nuclear Pore Complex Association and Nuclear Localization Domains and a Role in mRNA Export. Journal of Cell Biology, 1998, 143, 1801-1812.	2.3	97
90	Steric-model for activation of muscle thin filaments 1 1 Edited by P.E. Wright. Journal of Molecular Biology, 1997, 266, 8-14.	2.0	437

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91	Visualization of caldesmon on smooth muscle thin filaments. Journal of Molecular Biology, 1997, 274, 310-317.	2.0	45
92	Polymerization of myosin on activation of rat anococcygeus smooth muscle. Journal of Muscle Research and Cell Motility, 1997, 18, 381-393.	0.9	45
93	Steric-blocking by Tropomyosin Visualized in Relaxed Vertebrate Muscle Thin Filaments. Journal of Molecular Biology, 1995, 251, 191-196.	2.0	169
94	Ca2+-induced tropomyosin movement in Limulus thin filaments revealed by three-dimensional reconstruction. Nature, 1994, 368, 65-67.	13.7	324
95	Electron microscopy of the actin-myosin head complex in the presence of ATP. Journal of Molecular Biology, 1992, 223, 391-397.	2.0	51
96	Structure of the myosin filaments of relaxed and rigor vertebrate striated muscle studied by rapid freezing electron microscopy. Journal of Molecular Biology, 1992, 228, 474-487.	2.0	48
97	Structural changes induced in scallop heavy meromyosin molecules by Ca2+ and ATP. Journal of Muscle Research and Cell Motility, 1992, 13, 436-446.	0.9	16
98	Direct determination of myosin filament symmetry in scallop striated adductor muscle by rapid freezing and freeze substitution. Journal of Molecular Biology, 1991, 220, 125-132.	2.0	19
99	Caldesmon and the structure of smooth muscle thin filaments: electron microscopy of isolated thin filaments. Journal of Muscle Research and Cell Motility, 1990, 11, 176-185.	0.9	72
100	Caldesmon and the Structure of Vertebrate Smooth Muscle Thin Filaments.. Annals of the New York Academy of Sciences, 1990, 599, 75-84.	1.8	10
101	Myosin filaments isolated from skinned amphibian smooth muscle cells are side-polar. Journal of Muscle Research and Cell Motility, 1989, 10, 206-220.	0.9	56
102	Caldesmon and the structure of smooth muscle thin filaments: Immunolocalization of caldesmon on thin filaments. Journal of Muscle Research and Cell Motility, 1989, 10, 101-112.	0.9	55
103	A method for quickâ€freezing live muscles at known instants during contraction with simultaneous recording of mechanical tension. Journal of Microscopy, 1988, 151, 81-102.	0.8	39
104	Polymerization of vertebrate non-muscle and smooth muscle myosins. Journal of Molecular Biology, 1987, 198, 241-252.	2.0	89
105	Discrepancies in length of myosin head. Nature, 1986, 320, 688-688.	13.7	11
106	The ultrastructural location of C-protein, X-protein and H-protein in rabbit muscle. Journal of Muscle Research and Cell Motility, 1986, 7, 550-567.	0.9	179
107	Muscle structure: First sight of crossbridge crystals. Nature, 1985, 316, 16-17.	13.7	12
108	Arrangement of the heads of myosin in relaxed thick filaments from tarantula muscle. Journal of Molecular Biology, 1985, 184, 429-439.	2.0	99

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109	Arthrin: A new actin-like protein in insect flight muscle. Journal of Molecular Biology, 1985, 182, 443-454.	2.0	55
110	Light-chain phosphorylation controls the conformation of vertebrate non-muscle and smooth muscle myosin molecules. Nature, 1983, 302, 436-439.	13.7	401
111	Cell biology: Muscle au naturel. Nature, 1983, 306, 112-113.	13.7	5
112	Electron microscopy and image analysis of myosin filaments from scallop striated muscle. Journal of Molecular Biology, 1983, 165, 303-320.	2.0	86
113	Three-dimensional reconstruction of thin filaments decorated with a Ca2+-regulated myosin. Journal of Molecular Biology, 1982, 157, 299-319.	2.0	133
114	Electron microscopy of thin filaments decorated with a Ca2+-regulated myosin. Journal of Molecular Biology, 1980, 140, 35-55.	2.0	169
115	Changes in crossbridge attachment in a myosin-regulated muscle. Nature, 1978, 273, 64-66.	13.7	15
116	Structure of A-segments from frog and rabbit skeletal muscle. Journal of Molecular Biology, 1977, 109, 69-81.	2.0	111
117	Actin cables. Nature, 1977, 269, 106-108.	13.7	0
118	Axial arrangement of crossbridges in thick filaments of vertebrate skeletal muscle. Journal of Molecular Biology, 1976, 102, 325-332.	2.0	83