Thomas C Irving

List of Publications by Year
in descending order

160 papers	7,041 citations	76031 42 h-index	78623 77 g-index
170 all docs	170 docs citations	170 times ranked	6439 citing authors

#	Article	IF	Citations
1	The stoic tooth root: how the mineral and extracellular matrix counterbalance to keep aged dentin stable. Acta Biomaterialia, 2022, 138, 351-360.	4.1	3
2	Myofibril orientation as a metric for characterizing heart disease. Biophysical Journal, 2022, 121, 565-574.	0.2	17
3	Muscle length has a greater effect on the rate of relaxation in slow-twitch rat soleus muscle than fast-twitch EDL muscle. Biophysical Journal, 2022, 121, 514a.	0.2	0
4	Molecular basis of force-pCa relation in <i>MYL2</i> cardiomyopathy mice: Role of the super-relaxed state of myosin. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	23
5	GSK-3Î² Localizes to the Cardiac Z-Disc to Maintain Length Dependent Activation. Circulation Research, 2022, 130, 871-886.	2.0	8
6	Small Angle X-ray Diffraction as a Tool for Structural Characterization of Muscle Disease. International Journal of Molecular Sciences, 2022, 23, 3052.	1.8	28
7	Dependence of thick filament structure in relaxed mammalian skeletal muscle on temperature and interfilament spacing. Journal of General Physiology, 2021, 153, .	0.9	21
8	Relaxed tarantula skeletal muscle has two ATP energy-saving mechanisms. Journal of General Physiology, 2021, 153, .	0.9	13
9	Modulation of Cardiac Thin Filament Azimuthal Rigidity by Calcium and Cross-Bridges. Biophysical Journal, 2021, 120, 342a-343a.	0.2	1
10	The myosin II coiled-coil domain atomic structure in its native environment. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	19
11	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
12	Pathogenic variants in TNNC2 cause congenital myopathy due to an impaired force response to calcium. Journal of Clinical Investigation, 2021, 131, .	3.9	11
13	Amino terminus of cardiac myosin binding protein-C regulates cardiac contractility. Journal of Molecular and Cellular Cardiology, 2021, 156, 33-44.	0.9	17
14	Effect of Active Lengthening and Shortening on Small-Angle X-ray Reflections in Skinned Skeletal Muscle Fibres. International Journal of Molecular Sciences, 2021, 22, 8526.	1.8	10
15	Myosin dilated cardiomyopathy mutation S532P disrupts actomyosin interactions, leading to altered muscle kinetics, reduced locomotion, and cardiac dilation in <i>Drosophila</i>. Molecular Biology of the Cell, 2021, 32, 1690-1706.	0.9	8
16	A mechanism for sarcomere breathing: volume change and advective flow within the myofilament lattice. Biophysical Journal, 2021, 120, 4079-4090.	0.2	5
17	The Super-Relaxed State and Length Dependent Activation in Porcine Myocardium. Circulation Research, 2021, 129, 617-630.	2.0	47
18	Two Classes of Myosin Inhibitors, Para-nitroblebbistatin and Mavacamten, Stabilize Î²-Cardiac Myosin in Different Structural and Functional States. Journal of Molecular Biology, 2021, 433, 167295.	2.0	19

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19	Abstract P505: Rv Sarcomeres From Lv-hfref Patients With Low Papi Have Abnormal Rv Thick Filament Structure. Circulation Research, 2021, 129, .	2.0	2
20	<i>In vivo</i> x-ray diffraction and simultaneous EMG reveal the time course of myofilament lattice dilation and filament stretch. Journal of Experimental Biology, 2020, 223, .	0.8	7
21	Localization of the Elastic Proteins in the Flight Muscle of Manduca sexta. International Journal of Molecular Sciences, 2020, 21, 5504.	1.8	1
22	Myosin dynamics during relaxation in mouse soleus muscle and modulation by 2â€²â€deoxyâ€ATP. Journal of Physiology, 2020, 598, 5165-5182.	1.3	23
23	Triggering typical nemaline myopathy with compound heterozygous nebulin mutations reveals myofilament structural changes as pathomechanism. Nature Communications, 2020, 11, 2699.	5.8	11
24	Nanometer-scale structure differences in the myofilament lattice spacing of two cockroach leg muscles correspond to their different functions. Journal of Experimental Biology, 2020, 223, .	0.8	9
25	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
26	KBTBD13 is an actin-binding protein that modulates muscle kinetics. Journal of Clinical Investigation, 2020, 130, 754-767.	3.9	25
27	Frustration and folding of a TIM barrel protein. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16378-16383.	3.3	18
28	X-ray Diffraction of Intact Murine Skeletal Muscle as a Tool for Studying the Structural Basis of Muscle Disease. Journal of Visualized Experiments, 2019, , .	0.2	12
29	Lattice arrangement of myosin filaments correlates with fiber type in rat skeletal muscle. Journal of General Physiology, 2019, 151, 1404-1412.	0.9	12
30	Structural Organization and Dynamics of Homodimeric Cytohesin Family Arf GTPase Exchange Factors in Solution and on Membranes. Structure, 2019, 27, 1782-1797.e7.	1.6	14
31	Cardiac myosin activation with 2-deoxy-ATP via increased electrostatic interactions with actin. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11502-11507.	3.3	30
32	X-Ray Diffraction Resolves How Actin-Myosin Spacing Explains the Differences of Two Muscles with Identical Steady State Properties. Biophysical Journal, 2019, 116, 403a.	0.2	0
33	Time-Resolved X-Ray Studies of Skeletal Muscle from a Duchene Muscular Dystrophy Rat Model. Biophysical Journal, 2019, 116, 404a.	0.2	0
34	In Situ Measurements of Polymer Micellization Kinetics with Millisecond Temporal Resolution. Macromolecules, 2019, 52, 3151-3157.	2.2	8
35	Getting into the thick (and thin) of it. Journal of General Physiology, 2019, 151, 610-613.	0.9	15
36	Response to: Thick Filament Length Changes in Muscle Have Both Elastic and Structural Components. Biophysical Journal, 2019, 116, 985-986.	0.2	3

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37	Nebulin and titin modulate cross-bridge cycling and length-dependent calcium sensitivity. Journal of General Physiology, 2019, 151, 680-704.	0.9	32
38	Low temperature traps myosin motors of mammalian muscle in a refractory state that prevents activation. Journal of General Physiology, 2019, 151, 1272-1286.	0.9	40
39	Estimation of Forces on Actin Filaments in Living Muscle from X-ray Diffraction Patterns and Mechanical Data. International Journal of Molecular Sciences, 2019, 20, 6044.	1.8	6
40	Slowâ€twitch skeletal muscle defects accompany cardiac dysfunction in transgenic mice with a mutation in the myosin regulatory light chain. FASEB Journal, 2019, 33, 3152-3166.	0.2	11
41	Altered myofilament structure and function in dogs with Duchenne muscular dystrophy cardiomyopathy. Journal of Molecular and Cellular Cardiology, 2018, 114, 345-353.	0.9	11
42	Dysfunctional sarcomere contractility contributes to muscle weakness in <i>ACTA1</i>â€related nemaline myopathy (NEM3). Annals of Neurology, 2018, 83, 269-282.	2.8	24
43	Structural Dynamics Control Allosteric Activation of Cytohesin Family Arf GTPase Exchange Factors. Structure, 2018, 26, 106-117.e6.	1.6	11
44	Sarcomeric perturbations of myosin motors lead to dilated cardiomyopathy in genetically modified <i>MYL2</i> mice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2338-E2347.	3.3	28
45	Thick-Filament Extensibility in Intact SkeletalÂMuscle. Biophysical Journal, 2018, 115, 1580-1588.	0.2	48
46	Nebulin stiffens the thin filament and augments cross-bridge interaction in skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10369-10374.	3.3	39
47	Myosin Head Configurations in Resting and Contracting Murine Skeletal Muscle. International Journal of Molecular Sciences, 2018, 19, 2643.	1.8	53
48	Structural and Biochemical Mechanisms of Myosin-Induced Dilated Cardiomyopathy. Biophysical Journal, 2018, 114, 383a.	0.2	0
49	Structural and functional impact of troponin C-mediated Ca2+ sensitization on myofilament lattice spacing and cross-bridge mechanics in mouse cardiac muscle. Journal of Molecular and Cellular Cardiology, 2018, 123, 26-37.	0.9	27
50	Deciphering the super relaxed state of human Î²-cardiac myosin and the mode of action of mavacamten from myosin molecules to muscle fibers. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8143-E8152.	3.3	248
51	MuscleX: a new tool for analyzing X-ray diffraction patterns from muscle and other fibrous systems. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, a129-a129.	0.0	1
52	Hypercontractile mutant of ventricular myosin essential light chain leads to disruption of sarcomeric structure and function and results in restrictive cardiomyopathy in mice. Cardiovascular Research, 2017, 113, 1124-1136.	1.8	23
53	Coreâ€“Shell Structure and Aggregation Number of Micelles Composed of Amphiphilic Block Copolymers and Amphiphilic Heterografted Polymer Brushes Determined by Small-Angle X-ray Scattering. ACS Macro Letters, 2017, 6, 1005-1012.	2.3	40
54	Biochemical and Biophysical Methods for Analysis of Poly(ADP-Ribose) Polymerase 1 and Its Interactions with Chromatin. Methods in Molecular Biology, 2017, 1608, 231-253.	0.4	2

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55	X-ray diffraction from nonuniformly stretched helical molecules. Journal of Applied Crystallography, 2016, 49, 784-797.	1.9	10
56	Three-dimensional stochastic model of actinâ€“myosin binding in the sarcomere lattice. Journal of General Physiology, 2016, 148, 459-488.	0.9	60
57	Simultaneous Measurement of Force and Lattice Spacing in Skinned Cardiac Fibers. Biophysical Journal, 2016, 110, 120a.	0.2	0
58	In Vitro Chromatin Assembly. Methods in Enzymology, 2016, 573, 3-41.	0.4	44
59	Titin strain contributes to the Frankâ€“Starling law of the heart by structural rearrangements of both thin- and thick-filament proteins. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2306-2311.	3.3	154
60	Atomistic modelling of scattering data in the Collaborative Computational Project for Small Angle Scattering (CCP-SAS). Journal of Applied Crystallography, 2016, 49, 1861-1875.	1.9	67
61	Altered Myofilament Structure and Function in Dogs with Duchenne Muscular Dystrophy Cardiomyopathy. , 2016, , .		0
62	Development of a multilayer monochromator system for the BioCAT beamline. Proceedings of SPIE, 2016, , .	0.8	1
63	Estimation of Local Forces in Myofilaments using X-Ray Diffraction Patterns and Muscle Mechanics Data. Biophysical Journal, 2015, 108, 422a-423a.	0.2	1
64	Elastic proteins in the flight muscle of Manduca sexta. Archives of Biochemistry and Biophysics, 2015, 568, 16-27.	1.4	10
65	Constitutive phosphorylation of cardiac myosin regulatory light chain prevents development of hypertrophic cardiomyopathy in mice. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E4138-46.	3.3	63
66	Methods for analysis of size-exclusion chromatographyâ€“small-angle X-ray scattering and reconstruction of protein scattering. Journal of Applied Crystallography, 2015, 48, 1102-1113.	1.9	46
67	X-ray micro-diffraction studies on biological samples at the BioCAT Beamline 18-ID at the Advanced Photon Source. Journal of Synchrotron Radiation, 2014, 21, 1200-1205.	1.0	6
68	Myocardial Infarction-induced N-terminal Fragment of Cardiac Myosin-binding Protein C (cMyBP-C) Impairs Myofilament Function in Human Myocardium. Journal of Biological Chemistry, 2014, 289, 8818-8827.	1.6	39
69	Hugh E. Huxley: The Compleat Biophysicist. Biophysical Journal, 2014, 107, 1493-1501.	0.2	10
70	Modulation of frustration in folding by sequence permutation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10562-10567.	3.3	24
71	Microsecond Barrier-Limited Chain Collapse Observed by Time-Resolved FRET and SAXS. Journal of Molecular Biology, 2014, 426, 1980-1994.	2.0	43
72	X-Ray Diffraction Pattern of Non-Uniformly Stretched Actin Filament. Biophysical Journal, 2014, 106, 768a.	0.2	1

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73	Multiscale model predictions of X-ray diffraction patterns from nonuniformly stretched actin filaments. , 2014, , .		1
74	Abstract 18852: Myofilament Length Dependent Activation: Role of Titin. Circulation, 2014, 130, .	1.6	0
75	The Cross-Bridge Spring: Can Cool Muscles Store Elastic Energy?. Science, 2013, 340, 1217-1220.	6.0	33
76	Nâ€terminal phosphorylation of cardiac troponinâ€I reduces lengthâ€dependent calcium sensitivity of contraction in cardiac muscle. Journal of Physiology, 2013, 591, 475-490.	1.3	19
77	Modulation of Crossbridge Cycling Kinetics and Length Dependent Calcium Sensitivity by Titin and Nebulin. Biophysical Journal, 2013, 104, 310a.	0.2	2
78	High-speed detector for time-resolved diffraction studies. Journal of Physics: Conference Series, 2013, 425, 092005.	0.3	3
79	Calcium sensitivity and myofilament lattice structure in titin N2B KO mice. Archives of Biochemistry and Biophysics, 2013, 535, 76-83.	1.4	19
80	The lengthâ€"tension curve in muscle depends on lattice spacing. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130697.	1.2	80
81	Sub-millisecond time-resolved SAXS using a continuous-flow mixer and X-ray microbeam. Journal of Synchrotron Radiation, 2013, 20, 820-825.	1.0	61
82	Advances in turbulent mixing techniques to study microsecond protein folding reactions. Biopolymers, 2013, 99, 888-896.	1.2	22
83	Titin-based stiffening of muscle fibers in Ehlers-Danlos Syndrome. Journal of Applied Physiology, 2012, 112, 1157-1165.	1.2	33
84	Myosin binding protein-C phosphorylation is the principal mediator of protein kinase A effects on thick filament structure in myocardium. Journal of Molecular and Cellular Cardiology, 2012, 53, 609-616.	0.9	57
85	High-speed CMOS detector for time-resolved synchrotron applications. , 2012, , .		0
86	Thick-to-Thin Filament Surface Distance Modulates Cross-Bridge Kinetics in Drosophila Flight Muscle. Biophysical Journal, 2012, 103, 1275-1284.	0.2	21
87	Mechanoregulation of Delayed Stretch Activation. Biophysical Journal, 2012, 102, 356a.	0.2	0
88	Elastic Proteins in the Flight Muscle of Manduca Sexta. Biophysical Journal, 2012, 102, 361a.	0.2	0
89	Head-Head Interactions of Resting Myosin Crossbridges in Intact Frog Skeletal Muscles, Revealed by Synchrotron X-Ray Fiber Diffraction. PLoS ONE, 2012, 7, e52421.	1.1	16
90	X-ray diffraction evidence for myosin-troponin connections and tropomyosin movement during stretch activation of insect flight muscle. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 120-125.	3.3	87

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91	Thick-Filament Strain and Interfilament Spacing in Passive Muscle: Effect of Titin-Based Passive Tension. Biophysical Journal, 2011, 100, 1499-1508.	0.2	87
92	Regulatory Light Chain Phosphorylation and N-Terminal Extension Increase Cross-Bridge Binding and Power Output in Drosophila at InÂVivo Myofilament Lattice Spacing. Biophysical Journal, 2011, 100, 1737-1746.	0.2	26
93	Roles for Cardiac MyBP-C in Maintaining Myofilament Lattice Rigidity andÂProlonging Myosin Cross-Bridge Lifetime. Biophysical Journal, 2011, 101, 1661-1669.	0.2	39
94	SAXS Study of Cytochrome-C Cold Denaturation. Biophysical Journal, 2011, 100, 542a.	0.2	0
95	Modular high frame rate detector for synchrotron applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 649, 78-80.	0.7	3
96	X-ray diffraction from intact tau aggregates in human brain tissue. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 649, 184-187.	0.7	2
97	Minireview: Structural insights into early folding events using continuousâ€flow timeâ€resolved smallâ€angle Xâ€ray scattering. Biopolymers, 2011, 95, 550-558.	1.2	50
98	Structural and functional aspects of the myosin essential light chain in cardiac muscle contraction. FASEB Journal, 2011, 25, 4394-4405.	0.2	44
99	Shape of tropoelastin, the highly extensible protein that controls human tissue elasticity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4322-4327.	3.3	170
100	COOH-terminal truncation of flightin decreases myofilament lattice organization, cross-bridge binding, and power output in Drosophila indirect flight muscle. American Journal of Physiology - Cell Physiology, 2011, 301, C383-C391.	2.1	15
101	Myosin head orientation: a structural determinant for the Frank-Starling relationship. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H2155-H2160.	1.5	56
102	Fast-scanning high-flux microprobe for biological X-ray fluorescence microscopy and microXAS. Journal of Synchrotron Radiation, 2010, 17, 522-529.	1.0	16
103	Differential roles of regulatory light chain and myosin binding protein-C phosphorylations in the modulation of cardiac force development. Journal of Physiology, 2010, 588, 981-993.	1.3	143
104	Multistage Collapse of a Bacterial Ribozyme Observed by Time-Resolved Small-Angle X-ray Scattering. Journal of the American Chemical Society, 2010, 132, 10148-10154.	6.6	50
105	Improved Fitting of Solution X-ray Scattering Data to Macromolecular Structures and Structural Ensembles by Explicit Water Modeling. Journal of the American Chemical Society, 2010, 132, 15484-15486.	6.6	120
106	Myofilament length dependent activation. Journal of Molecular and Cellular Cardiology, 2010, 48, 851-858.	0.9	237
107	Structural and Functional Gradients with Temperature in the Flight Muscle of Manduca Sexta. Biophysical Journal, 2010, 98, 348a-349a.	0.2	1
108	Phosphorylation of Myosin Binding Protein-C Alters the Proximity of Cross-Bridges to Actin and Accelerates Myocardial Twitch Kinetics. Biophysical Journal, 2010, 98, 347a.	0.2	0

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109	Bright Semiconductor Scintillator for High Resolution X-Ray Imaging. IEEE Transactions on Nuclear Science, 2010, 57, 923-930.	1.2	8
110	Biological applications of X-ray microprobes. International Journal of Radiation Biology, 2009, 85, 710-713.	1.0	12
111	Synchrotron Xâ€ray imaging reveals a correlation of tumor copper speciation with Clioquinol's anticancer activity. Journal of Cellular Biochemistry, 2009, 108, 96-105.	1.2	22
112	High-flux hard X-ray microbeam using a single-bounce capillary with doubly focused undulator beam. Journal of Synchrotron Radiation, 2009, 16, 76-82.	1.0	19
113	Phosphorylation and the N-terminal extension of the regulatory light chain help orient and align the myosin heads in Drosophila flight muscle. Journal of Structural Biology, 2009, 168, 240-249.	1.3	35
114	Structure of an Actin Trimer Stabilized by a Tandem W Domain Hybrid Construct. Biophysical Journal, 2009, 96, 125a.	0.2	0
115	Alternative S2 Hinge Regions of the Myosin Rod Affect Myofibrillar Structure and Myosin Kinetics. Biophysical Journal, 2009, 96, 4132-4143.	0.2	22
116	Structure of Flexible Filamentous Plant Viruses. Journal of Virology, 2008, 82, 9546-9554.	1.5	98
117	Aging Enhances Indirect Flight Muscle Fiber Performance yet Decreases Flight Ability in Drosophila. Biophysical Journal, 2008, 95, 2391-2401.	0.2	77
118	Reverse actin sliding triggers strong myosin binding that moves tropomyosin. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10372-10377.	3.3	23
119	X-ray scattering study of actin polymerization nuclei assembled by tandem W domains. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10785-10790.	3.3	33
120	Protein Kinase Aâ€"Mediated Phosphorylation of cMyBP-C Increases Proximity of Myosin Heads to Actin in Resting Myocardium. Circulation Research, 2008, 103, 244-251.	2.0	95
121	Functional genomics of chicken, mouse, and human titin supports splice diversity as an important mechanism for regulating biomechanics of striated muscle. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 293, R557-R567.	0.9	39
122	1P157 Dispositional and Conformafonal Changes of Myosin Crossbridges in Skeletal Musde Contraction and Regulation by X-ray Fiber Diffraction(Muscle-muscle proteins and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 217 Td (contra	0.0	0
123	Skeletal Muscle Performance Determined by Modulation of Number of Myosin Motors Rather Than Motor Force or Stroke Size. Cell, 2007, 131, 784-795.	13.5	274
124	Axial Dispositions and Conformations of Myosin Crossbridges Along Thick Filaments in Relaxed and Contracting States of Vertebrate Striated Muscles by X-ray Fiber Diffraction. Journal of Molecular Biology, 2007, 367, 275-301.	2.0	31
125	Radial Displacement of Myosin Cross-bridges in Mouse Myocardium due to Ablation of Myosin Binding Protein-C. Journal of Molecular Biology, 2007, 367, 36-41.	2.0	72
126	Interfilament Spacing Is Preserved during Sarcomere Length Isometric Contractions in Rat Cardiac Trabeculae. Biophysical Journal, 2007, 92, L73-L75.	0.2	20

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127	Cost-effective EMCCD-based detector for time-resolved biological SAXS applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 576, 38-42.	0.7	10
128	X-Ray Diffraction of Indirect Flight Muscle from Drosophila in Vivo. , 2006, , 197-213.		4
129	The Myosin Filament Superlattice in the Flight Muscles of Flies: A-band Lattice Optimisation for Stretch-activation?. Journal of Molecular Biology, 2006, 361, 823-838.	2.0	23
130	Impact of osmotic compression on sarcomere structure and myofilament calcium sensitivity of isolated rat myocardium. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H1847-H1855.	1.5	47
131	EMCCD-Based Detector for Time-Resolved X-Ray Diffraction and Scattering Studies of Biological Specimens. , 2006, , .		1
132	Microfibrillar structure of type I collagen in situ. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9001-9005.	3.3	803
133	Molecular dynamics of cyclically contracting insect flight muscle in vivo. Nature, 2005, 433, 330-334.	13.7	85
134	Titin-based modulation of active tension and interfilament lattice spacing in skinned rat cardiac muscle. Pflugers Archiv European Journal of Physiology, 2005, 449, 449-457.	1.3	71
135	X-Ray Diffraction Studies of Striated Muscles. , 2005, 565, 45-60.		11
136	The Essential Light Chain N-terminal Extension Alters Force and Fiber Kinetics in Mouse Cardiac Muscle. Journal of Biological Chemistry, 2005, 280, 34427-34434.	1.6	30
137	Reduced cross-bridge dependent stiffness of skinned myocardium from mice lacking cardiac myosin binding protein-C. Molecular and Cellular Biochemistry, 2004, 263, 73-80.	1.4	36
138	The BioCAT undulator beamline 18ID: a facility for biological non-crystalline diffraction and X-ray absorption spectroscopy at the Advanced Photon Source. Journal of Synchrotron Radiation, 2004, 11, 399-405.	1.0	141
139	Electron tomography of fast frozen, stretched rigor fibers reveals elastic distortions in the myosin crossbridges. Journal of Structural Biology, 2004, 147, 268-282.	1.3	48
140	Reduced cross-bridge dependent stiffness of skinned myocardium from mice lacking cardiac myosin binding protein-C. Molecular and Cellular Biochemistry, 2004, 263, 73-80.	1.4	25
141	High-resolution wide-angle X-ray scattering of protein solutions: effect of beam dose on protein integrity. Journal of Synchrotron Radiation, 2003, 10, 398-404.	1.0	57
142	Titin Isoform Variance and Length Dependence of Activation in Skinned Bovine Cardiac Muscle. Journal of Physiology, 2003, 553, 147-154.	1.3	127
143	Myosin Head Configuration in Relaxed Insect Flight Muscle: X-Ray Modeled Resting Cross-Bridges in a Pre-Powerstroke State Are Poised for Actin Binding. Biophysical Journal, 2003, 85, 1063-1079.	0.2	74
144	X-Ray Interference Evidence Concerning the Range of Crossbridge Movement, and Backbone Contributions to the Meridional Pattern. Advances in Experimental Medicine and Biology, 2003, 538, 233-242.	0.8	8

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145	Troponin I in the murine myocardium: influence on length-dependent activation and interfilament spacing. Journal of Physiology, 2003, 547, 951-961.	1.3	127
146	Myofilament Calcium Sensitivity in Skinned Rat Cardiac Trabeculae. Circulation Research, 2002, 90, 59-65.	2.0	136
147	Tropomyosin 3 expression leads to hypercontractility and attenuates myofilament length-dependent Ca²⁺activation. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 283, H1344-H1353.	1.5	54
148	Frank-Starling law of the heart and the cellular mechanisms of length-dependent activation. Pflugers Archiv European Journal of Physiology, 2002, 445, 305-310.	1.3	89
149	Lengthâ€dependent activation in three striated muscle types of the rat. Journal of Physiology, 2002, 544, 225-236.	1.3	107
150	Changes in myofibrillar structure and function produced by N-terminal deletion of the regulatory light chain in Drosophila. Journal of Muscle Research and Cell Motility, 2001, 22, 675-683.	0.9	22
151	The In Situ Supermolecular Structure of Type I Collagen. Structure, 2001, 9, 1061-1069.	1.6	283
152	Titin-Based Modulation of Calcium Sensitivity of Active Tension in Mouse Skinned Cardiac Myocytes. Circulation Research, 2001, 88, 1028-1035.	2.0	224
153	Myofilament lattice spacing as a function of sarcomere length in isolated rat myocardium. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H2568-H2573.	1.5	117
154	Z/I and A-band lattice spacings in frog skeletal muscle: effects of contraction and osmolarity. Journal of Muscle Research and Cell Motility, 1998, 19, 811-823.	0.9	13
155	Bright prospects for biological non-crystalline diffraction. Nature Structural Biology, 1998, 5, 648-650.	9.7	10
156	A Wide-Bandpass Multilayer Monochromator for Biological Small-Angle Scattering and Fiber Diffraction Studies. Journal of Applied Crystallography, 1998, 31, 672-682.	1.9	46
157	High-Resolution X-ray Diffraction of Muscle Using Undulator Radiation from the Tristan Main Ring at KEK. Journal of Synchrotron Radiation, 1998, 5, 280-285.	1.0	3
158	The role of sugar, vitrification and membrane phase transition in seed desiccation tolerance. Physiologia Plantarum, 1994, 90, 621-628.	2.6	13
159	Z-line/I-band and A-band lattices of intact frog sartorius muscle at altered interfilament spacing. Journal of Muscle Research and Cell Motility, 1992, 13, 100-105.	0.9	21
160	Changes in thick filament structure during compression of the filament lattice in relaxed frog sartorius muscle. Journal of Muscle Research and Cell Motility, 1989, 10, 385-394.	0.9	48