

Michael A Ferenczi

List of Publications by Year in descending order

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97
papers

3,787
citations

147801

31
h-index

133252

59
g-index

100
all docs

100
docs citations

100
times ranked

2745
citing authors

#	ARTICLE	IF	CITATIONS
1	ATP Consumption and Efficiency of Human Single Muscle Fibers with Different Myosin Isoform Composition. <i>Biophysical Journal</i> , 2000, 79, 945-961.	0.5	296
2	Cdc42 and Par6 ϵ -PKC ζ regulate the spatially localized association of Dlg1 and APC to control cell polarization. <i>Journal of Cell Biology</i> , 2005, 170, 895-901.	5.2	277
3	Myosin head movements are synchronous with the elementary force-generating process in muscle. <i>Nature</i> , 1992, 357, 156-158.	27.8	205
4	Elastic bending and active tilting of myosin heads during muscle contraction. <i>Nature</i> , 1998, 396, 383-387.	27.8	155
5	The dependence of force and shortening velocity on substrate concentration in skinned muscle fibres from <i>Rana temporaria</i> . <i>Journal of Physiology</i> , 1984, 350, 519-543.	2.9	138
6	The kinetics of magnesium adenosine triphosphate cleavage in skinned muscle fibres of the rabbit. <i>Journal of Physiology</i> , 1984, 352, 575-599.	2.9	132
7	Elastic distortion of myosin heads and repriming of the working stroke in muscle. <i>Nature</i> , 1995, 374, 553-555.	27.8	115
8	ATPase kinetics on activation of rabbit and frog permeabilized isometric muscle fibres: a real time phosphate assay. <i>Journal of Physiology</i> , 1997, 501, 125-148.	2.9	106
9	Conformation of the myosin motor during force generation in skeletal muscle. <i>Nature Structural Biology</i> , 2000, 7, 482-485.	9.7	98
10	Muscle force is generated by myosin heads stereospecifically attached to actin. <i>Nature</i> , 1997, 388, 186-190.	27.8	95
11	Interaction of the actin cytoskeleton with microtubules regulates secretory organelle movement near the plasma membrane in human endothelial cells. <i>Journal of Cell Science</i> , 2003, 116, 3927-3938.	2.0	95
12	Evaluation by medical students of the educational value of multi ϵ -material and multi ϵ -colored three ϵ -dimensional printed models of the upper limb for anatomical education. <i>Anatomical Sciences Education</i> , 2018, 11, 54-64.	3.7	94
13	Rab27a and MyoVa are the primary Mlph interactors regulating melanosome transport in melanocytes. <i>Journal of Cell Science</i> , 2007, 120, 3111-3122.	2.0	93
14	Rab27b Regulates Mast Cell Granule Dynamics and Secretion. <i>Traffic</i> , 2007, 8, 883-892.	2.7	92
15	Kinetics of relaxation from rigor of permeabilized fast-twitch skeletal fibers from the rabbit using a novel caged ATP and apyrase. <i>Biophysical Journal</i> , 1994, 67, 2436-2447.	0.5	85
16	A novel micromanipulation technique for measuring the bursting strength of single mammalian cells. <i>Applied Microbiology and Biotechnology</i> , 1991, 36, 208-210.	3.6	84
17	The efficiency of contraction in rabbit skeletal muscle fibres, determined from the rate of release of inorganic phosphate. <i>Journal of Physiology</i> , 1999, 517, 839-854.	2.9	83
18	A micromanipulation technique with a theoretical cell model for determining mechanical properties of single mammalian cells. <i>Chemical Engineering Science</i> , 1992, 47, 1347-1354.	3.8	76

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19	Comparative Single-Molecule and Ensemble Myosin Enzymology: Sulfoindocyanine ATP and ADP Derivatives. <i>Biophysical Journal</i> , 2000, 78, 3048-3071.	0.5	73
20	The "Roll and Lock" Mechanism of Force Generation in Muscle. <i>Structure</i> , 2005, 13, 131-141.	3.3	70
21	Myosin Regulatory Light Chain (RLC) Phosphorylation Change as a Modulator of Cardiac Muscle Contraction in Disease. <i>Journal of Biological Chemistry</i> , 2013, 288, 13446-13454.	3.4	63
22	Phosphate burst in permeable muscle fibers of the rabbit. <i>Biophysical Journal</i> , 1986, 50, 471-477.	0.5	58
23	Structural Changes in the Actin-Myosin Cross-Bridges Associated with Force Generation Induced by Temperature Jump in Permeabilized Frog Muscle Fibers. <i>Biophysical Journal</i> , 1999, 77, 354-372.	0.5	58
24	Physiological properties of human diaphragm muscle fibres and the effect of chronic obstructive pulmonary disease. <i>Journal of Physiology</i> , 2008, 586, 2637-2650.	2.9	54
25	Investigation of a transgenic mouse model of familial dilated cardiomyopathy. <i>Journal of Molecular and Cellular Cardiology</i> , 2010, 49, 380-389.	1.9	53
26	Strong Binding of Myosin Heads Stretches and Twists the Actin Helix. <i>Biophysical Journal</i> , 2005, 88, 1902-1910.	0.5	51
27	Smooth muscle myosin: regulation and properties. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2004, 359, 1921-1930.	4.0	49
28	Kinetics of ATP hydrolysis and tension production in skinned cardiac muscle of the guinea pig. <i>Journal of Biological Chemistry</i> , 1988, 263, 16750-6.	3.4	47
29	Disrupting the LINC complex by AAV mediated gene transduction prevents progression of Lamin induced cardiomyopathy. <i>Nature Communications</i> , 2021, 12, 4722.	12.8	45
30	Implementation of team-based learning on a large scale: Three factors to keep in mind*. <i>Medical Teacher</i> , 2018, 40, 582-588.	1.8	43
31	Inhibition of unloaded shortening velocity in permeabilized muscle fibres by caged ATP compounds. <i>Journal of Muscle Research and Cell Motility</i> , 1995, 16, 131-137.	2.0	34
32	Morphoregulation by acetylcholinesterase in fibroblasts and astrocytes. <i>Journal of Cellular Physiology</i> , 2008, 215, 82-100.	4.1	33
33	Phosphorylation of the regulatory light chain of myosin in striated muscle: methodological perspectives. <i>European Biophysics Journal</i> , 2016, 45, 779-805.	2.2	31
34	Actomyosin energy turnover declines while force remains constant during isometric muscle contraction. <i>Journal of Physiology</i> , 2004, 555, 27-43.	2.9	28
35	Passive properties of the diaphragm in COPD. <i>Journal of Applied Physiology</i> , 2006, 101, 1400-1405.	2.5	28
36	How cognitive engagement fluctuates during a team-based learning session and how it predicts academic achievement. <i>Advances in Health Sciences Education</i> , 2018, 23, 339-351.	3.3	28

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37	Rate of Phosphate Release after Photoliberation of Adenosine 5â€²-Triphosphate in Slow and Fast Skeletal Muscle Fibers. <i>Biophysical Journal</i> , 1998, 75, 2389-2401.	0.5	27
38	Mechanical and structural properties underlying contraction of skeletal muscle fibers after partial	0.5	26
39	Mechanical and energetic properties of papillary muscle from ACTC E99K transgenic mouse models of hypertrophic cardiomyopathy. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2013, 304, H1513-H1524.	3.2	25
40	Direct Modeling of X-Ray Diffraction Pattern from Contracting Skeletal Muscle. <i>Biophysical Journal</i> , 2008, 95, 2880-2894.	0.5	24
41	Synthesis and properties of a conformationally restricted spin-labeled analog of ATP and its interaction with myosin and skeletal muscle. <i>Biochemistry</i> , 1992, 31, 8043-8054.	2.5	23
42	The Fraction of Myosin Motors That Participate in Isometric Contraction of Rabbit Muscle Fibers at Near-Physiological Temperature. <i>Biophysical Journal</i> , 2011, 101, 404-410.	0.5	23
43	Millisecond-Scale Biochemical Response to Change in Strain. <i>Biophysical Journal</i> , 2011, 101, 2445-2454.	0.5	23
44	The Dilated Cardiomyopathy-Causing Mutation ACTC E361G in Cardiac Muscle Myofibrils Specifically Abolishes Modulation of Ca ²⁺ Regulation by Phosphorylation of Troponin I. <i>Biophysical Journal</i> , 2014, 107, 2369-2380.	0.5	22
45	Development of a three-dimensional printed heart from computed tomography images of a plastinated specimen for learning anatomy. <i>Anatomy and Cell Biology</i> , 2020, 53, 48-57.	1.0	20
46	Effect of Strain on Actomyosin Kinetics in Isometric Muscle Fibers. <i>Biophysical Journal</i> , 2006, 90, 3653-3665.	0.5	19
47	Why Muscle is an Efficient Shock Absorber. <i>PLoS ONE</i> , 2014, 9, e85739.	2.5	19
48	Revisiting Frank-Starling: regulatory light chain phosphorylation alters the rate of force redevelopment (k_{tr}) in a length-dependent fashion. <i>Journal of Physiology</i> , 2016, 594, 5237-5254.	2.9	19
49	Non-Linear Optical Microscopy Sheds Light on Cardiovascular Disease. <i>PLoS ONE</i> , 2013, 8, e56136.	2.5	19
50	Mutations of ventricular essential myosin light chain disturb myosin binding and sarcomeric sorting. <i>Cardiovascular Research</i> , 2012, 93, 390-396.	3.8	16
51	Time Course and Strain Dependence of ADP Release during Contraction of Permeabilized Skeletal Muscle Fibers. <i>Biophysical Journal</i> , 2009, 96, 3281-3294.	0.5	15
52	Stretch of Contracting Cardiac Muscle Abruptly Decreases the Rate of Phosphate Release at High and Low Calcium. <i>Journal of Biological Chemistry</i> , 2012, 287, 25696-25705.	3.4	15
53	General considerations of cross-bridge models in relation to the dependence on MgATP concentration of mechanical parameters of skinned fibers from frog muscles. <i>Society of General Physiologists Series</i> , 1982, 37, 91-107.	0.6	15
54	Myosin Regulatory Light Chain Phosphorylation and Strain Modulate Adenosine Diphosphate Release from Smooth Muscle Myosin. <i>Biophysical Journal</i> , 2004, 86, 2318-2328.	0.5	14

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55	Insight into the actin-myosin motor from x-ray diffraction on muscle. <i>Frontiers in Bioscience - Landmark</i> , 2009, Volume, 3188.	3.0	14
56	Semi-automated Analysis of Organelle Movement and Membrane Content: Understanding Rab-Motor Complex Transport Function. <i>Traffic</i> , 2011, 12, 1686-1701.	2.7	14
57	Influence of ionic strength on the time course of force development and phosphate release by dogfish muscle fibres. <i>Journal of Physiology</i> , 2005, 567, 989-1000.	2.9	13
58	Response of Rigor Cross-bridges to Stretch Detected by Fluorescence Lifetime Imaging Microscopy of Myosin Essential Light Chain in Skeletal Muscle Fibers. <i>Journal of Biological Chemistry</i> , 2011, 286, 842-850.	3.4	13
59	Regulatory Light Chains in Cardiac Development and Disease. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4351.	4.1	13
60	Time-Resolved Measurements of Phosphate Release by Cycling Cross-Bridges in Portal Vein Smooth Muscle. <i>Biophysical Journal</i> , 1998, 75, 3031-3040.	0.5	12
61	Structural responses to the photolytic release of ATP in frog muscle fibres, observed by time-resolved X-ray diffraction. <i>Journal of Physiology</i> , 1999, 520, 681-696.	2.9	11
62	Fluorescence Lifetime Imaging to Detect Actomyosin States in Mammalian Muscle Sarcomeres. <i>Biophysical Journal</i> , 2007, 93, 2091-2101.	0.5	11
63	Changes in the x-ray diffraction pattern from single, intact muscle fibers produced by rapid shortening and stretch. <i>Biophysical Journal</i> , 1995, 68, 92S-96S; discussion 96S-98S.	0.5	11
64	A new method for the time-resolved measurement of phosphate release in permeabilized muscle fibers. <i>Biophysical Journal</i> , 1995, 68, 191S-192S; discussion 192S-193S.	0.5	10
65	A birefringence study of changes in myosin orientation during relaxation of skinned muscle fibers induced by photolytic ATP release. <i>Biophysical Journal</i> , 1994, 67, 1141-1148.	0.5	9
66	Ring-chain interconversion of sulforhodamineamine conjugates involves an unusually labile C-N bond and allows measurement of sulfonamide ionization kinetics. <i>Journal of Physical Organic Chemistry</i> , 2008, 21, 286-298.	1.9	9
67	Direct visualisation and kinetic analysis of normal and nemaline myopathy actin polymerisation using total internal reflection microscopy. <i>Journal of Muscle Research and Cell Motility</i> , 2009, 30, 85-92.	2.0	9
68	A Students' Model of Team-based Learning. <i>Health Professions Education</i> , 2019, 5, 294-302.	1.4	9
69	Interacting-heads motif explains the X-ray diffraction pattern of relaxed vertebrate skeletal muscle. <i>Biophysical Journal</i> , 2022, 121, 1354-1366.	0.5	9
70	Myosin Heads Contribute to the Maintenance of Filament Order in Relaxed Rabbit Muscle. <i>Biophysical Journal</i> , 2010, 99, 1827-1834.	0.5	8
71	Instrumentation to study myofibril mechanics from static to artificial simulations of cardiac cycle. <i>MethodsX</i> , 2016, 3, 156-170.	1.6	8
72	The ATPase Activity in Isometric and Shortening Skeletal Muscle Fibres. <i>Advances in Experimental Medicine and Biology</i> , 1998, 453, 331-341.	1.6	8

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73	FRET characterisation for cross-bridge dynamics in single-skinned rigor muscle fibres. <i>European Biophysics Journal</i> , 2011, 40, 13-27.	2.2	7
74	A post-MI power struggle: adaptations in cardiac power occur at the sarcomere level alongside MyBP-C and RLC phosphorylation. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 311, H465-H475.	3.2	7
75	Functional and Molecular Characterisation of Heart Failure Progression in Mice and the Role of Myosin Regulatory Light Chains in the Recovery of Cardiac Muscle Function. <i>International Journal of Molecular Sciences</i> , 2022, 23, 88.	4.1	7
76	Measurement of the reversibility of ATP binding to myosin in calcium-activated skinned fibers from rabbit skeletal muscle. Oxygen exchange between water and ATP released to the solution. <i>Journal of Biological Chemistry</i> , 1989, 264, 7193-201.	3.4	7
77	Effect of phosphate and temperature on force exerted by white muscle fibres from dogfish. <i>Journal of Muscle Research and Cell Motility</i> , 2010, 31, 35-44.	2.0	6
78	The elementary steps of the actomyosin ATPase in muscle fibres studied with caged-ATP. <i>Advances in Experimental Medicine and Biology</i> , 1988, 226, 181-8.	1.6	5
79	Tropomyosin movement is described by a quantitative high-resolution model of X-ray diffraction of contracting muscle. <i>European Biophysics Journal</i> , 2017, 46, 335-342.	2.2	4
80	The relation between maximum shortening velocity and the magnesium adenosine triphosphate concentration in frog skinned muscle fibres [proceedings]. <i>Journal of Physiology</i> , 1979, 292, 71P-72P.	2.9	4
81	Protein-protein interactions and their contribution in stabilizing frog myosin. <i>FEBS Letters</i> , 1982, 143, 213-216.	2.8	3
82	Relaxation from rigor by photolysis of caged-ATP in different types of muscle fibres from <i>Xenopus laevis</i> . <i>Journal of Muscle Research and Cell Motility</i> , 1991, 12, 507-516.	2.0	3
83	DCM-Causing Mutation E361G in Actin Slows Myofibril Relaxation Kinetics and Uncouples Myofibril Ca ²⁺ Sensitivity from Protein Phosphorylation. <i>Biophysical Journal</i> , 2013, 104, 312a.	0.5	3
84	The Closed State of the Thin Filament Is Not Occupied in Fully Activated Skeletal Muscle. <i>Biophysical Journal</i> , 2017, 112, 1455-1461.	0.5	3
85	Micromechanical measurements on biological materials: muscle fibres. <i>Biotechnology Letters</i> , 2000, 22, 521-529.	2.2	2
86	Fluorescence Lifetime Imaging Reveals that the Environment of the ATP Binding Site of Myosin in Muscle Senses Force. <i>Biophysical Journal</i> , 2010, 99, 2163-2169.	0.5	2
87	Mn ²⁺ PhosTag Polyacrylamide for the Quantification of Protein Phosphorylation Levels. <i>Current Protocols</i> , 2021, 1, e221.	2.9	2
88	Myosin Regulatory Light Chain (RLC) Phosphorylation Change as a Modulator of Cardiac Muscle Contraction in Disease. <i>Biophysical Journal</i> , 2013, 104, 309a-310a.	0.5	1
89	Modelling fibre kinetics. <i>Journal of Muscle Research and Cell Motility</i> , 1989, 10, 395-396.	2.0	0
90	Measurement Of ATPase Activity During Ramped Stretches In Contracting Skeletal Muscle Fibers Of The Rabbit. <i>Biophysical Journal</i> , 2009, 96, 212a.	0.5	0

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91	Effect of Inorganic Phosphate on the Rate of ADP Release During Ramp Shortening in Activated Permeabilized Fibers from Rabbit Psoas Muscle. <i>Biophysical Journal</i> , 2010, 98, 348a.	0.5	0
92	A Method to Exchange Recombinant Differentially Phosphorylated Rhodamine-Labeled Cardiac RLC into Permeabilized Cardiac Trabeculae. <i>Biophysical Journal</i> , 2012, 102, 359a.	0.5	0
93	Effects of Chronic Myocardial Infarction on Cardiac Muscle Performance and Structure In-Vivo and In-Vitro. <i>Biophysical Journal</i> , 2014, 106, 343a-344a.	0.5	0
94	Dcm-Causing Mutation E361G in Actin Uncouples Myofibril Ca ²⁺ Sensitivity from Protein Phosphorylation. <i>Biophysical Journal</i> , 2014, 106, 774a-775a.	0.5	0
95	HOP Skip and Jump; but How?. <i>Biophysical Journal</i> , 2014, 106, 765a.	0.5	0
96	DCM Mutation ACTCE361G Causes Uncoupling of Myofibril Sensitivity from TnI Phosphorylation that can be Reversed by Epigallocatechin-3-Gallate. <i>Biophysical Journal</i> , 2015, 108, 292a.	0.5	0
97	Crossbridge cycle in smooth muscle: kinetics assessed with flash photolysis and fluorescent probes. <i>Journal of Muscle Research and Cell Motility</i> , 2004, 25, 611-2.	2.0	0