Edward P Debold

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Myosin's powerstroke occurs prior to the release of phosphate from the active site. Cytoskeleton, 2021, 78, 185-198.	2.0	11
2	Recent insights into the relative timing of myosin's powerstroke and release of phosphate. Cytoskeleton, 2021, 78, 448-458.	2.0	15
3	Positional Isomers of a Non-Nucleoside Substrate Differentially Affect Myosin Function. Biophysical Journal, 2020, 119, 567-580.	0.5	1
4	FRET and optical trapping reveal mechanisms of actin activation of the power stroke and phosphate release in myosin V. Journal of Biological Chemistry, 2020, 295, 17383-17397.	3.4	22
5	Acidosis decreases the Ca2+ sensitivity of thin filaments by preventing the first actomyosin interaction. American Journal of Physiology - Cell Physiology, 2019, 317, C714-C718.	4.6	5
6	Acidosis affects muscle contraction by slowing the rates myosin attaches to and detaches from actin. Journal of Muscle Research and Cell Motility, 2018, 39, 135-147.	2.0	19
7	Acidosis and Phosphate Directly Reduce Myosinâ€™s Force-Generating Capacity Through Distinct Molecular Mechanisms. Frontiers in Physiology, 2018, 9, 862.	2.8	25
8	The molecular basis of thin filament activation: from single molecule to muscle. Scientific Reports, 2017, 7, 1822.	3.3	23
9	Decreased Myofilament Calcium Sensitivity Plays a Significant Role in Muscle Fatigue. Exercise and Sport Sciences Reviews, 2016, 44, 144-149.	3.0	11
10	Muscle Fatigue from the Perspective of a Single Crossbridge. Medicine and Science in Sports and Exercise, 2016, 48, 2270-2280.	0.4	67
11	Modifications of myofilament protein phosphorylation and function in response to cardiac arrest induced in a swine model. Frontiers in Physiology, 2015, 6, 199.	2.8	4
12	Potential molecular mechanisms underlying muscle fatigue mediated by reactive oxygen and nitrogen species. Frontiers in Physiology, 2015, 6, 239.	2.8	40
13	Molecular motor teamwork. Nature Nanotechnology, 2015, 10, 656-657.	31.5	3
14	Ca⁺⁺-sensitizing mutations in troponin, P_i, and 2-deoxyATP alter the depressive effect of acidosis on regulated thin-filament velocity. Journal of Applied Physiology, 2014, 116, 1165-1174.	2.5	20
15	Phosphate and acidosis act synergistically to depress peak power in rat muscle fibers. American Journal of Physiology - Cell Physiology, 2014, 307, C939-C950.	4.6	44
16	Magnesium Modulates Actin Binding and ADP Release in Myosin Motors. Journal of Biological Chemistry, 2014, 289, 23977-23991.	3.4	31
17	The Effect of Phosphate on the Force Generating Capacity of a Mini-Ensemble of Myosin Measured in a Laser Trap Assay. Biophysical Journal, 2013, 104, 306a.	0.5	0
18	Direct Observation of Phosphate Inhibiting the Force-Generating Capacity of a Miniensemble of Myosin Molecules. Biophysical Journal, 2013, 105, 2374-2384.	0.5	51

#	Article	IF	Citations
19	Altered Flexibility affects Regulatory Functions of Cardiac Î±-Tropomyosin (Î±-Tm) in a Novel Transgenic Mouse Model Expressing Î±-Tm-D137L. Biophysical Journal, 2013, 104, 448a.	0.5	0
20	Phosphate Enhances Regulated Thin Filament Velocity at Acidic pH in the Motility Assay. Biophysical Journal, 2013, 104, 450a-451a.	0.5	0
21	Cardiac Muscle Activation Blunted by a Mutation to the Regulatory Component, Troponin T. Journal of Biological Chemistry, 2013, 288, 26335-26349.	3.4	8
22	Direct observation of phosphate inhibiting the force generating capacity of myosin using a laser trap assay. FASEB Journal, 2013, 27, 1202.21.	0.5	0
23	Recent Insights into the Molecular Basis of Muscular Fatigue. Medicine and Science in Sports and Exercise, 2012, 44, 1440-1452.	0.4	35
24	Recent Insights into Muscle Fatigue at the Cross-Bridge Level. Frontiers in Physiology, 2012, 3, 151.	2.8	45
25	Mechanical Coupling between Myosin Molecules Causes Differences between Ensemble and Single-Molecule Measurements. Biophysical Journal, 2012, 103, 501-510.	0.5	93
26	The Effects of Phosphate and Hydrogen Ions on the Velocity-pCa Relationship in a Motility Assay. Biophysical Journal, 2012, 102, 154a.	0.5	0
27	The effects of phosphate and acidosis on regulated thin-filament velocity in an in vitro motility assay. Journal of Applied Physiology, 2012, 113, 1413-1422.	2.5	32
28	Phosphate Enhances Actin Filament Velocity at Low pH in an in vitro Motility Assay. Biophysical Journal, 2011, 100, 128a-129a.	0.5	0
29	Phosphate enhances myosin-powered actin filament velocity under acidic conditions in a motility assay. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 300, R1401-R1408.	1.8	40
30	Human actin mutations associated with hypertrophic and dilated cardiomyopathies demonstrate distinct thin filament regulatory properties in vitro. Journal of Molecular and Cellular Cardiology, 2010, 48, 286-292.	1.9	46
31	Acidosis Affects Myosin's Ability to Move Actin in a Single Molecule Laser Trap Assay. Medicine and Science in Sports and Exercise, 2007, 39, S8.	0.4	0
32	Hypertrophic and dilated cardiomyopathy mutations differentially affect the molecular force generation of mouse Î±-cardiac myosin in the laser trap assay. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H284-H291.	3.2	142
33	Cardiac myosin missense mutations cause dilated cardiomyopathy in mouse models and depress molecular motor function. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14525-14530.	7.1	90
34	Slip Sliding Away: Load-Dependence of Velocity Generated by Skeletal Muscle Myosin Molecules in the Laser Trap. Biophysical Journal, 2005, 89, L34-L36.	0.5	66
35	Preexercise Feeding in Untrained Adolescent Boys Does Not Affect Responses to Endurance Exercise or Performance. International Journal of Sport Nutrition, 1997, 7, 207-218.	1.7	11
36	Reliability and Validity of a Portable Metabolic Measurement System. Applied Physiology, Nutrition, and Metabolism, 1996, 21, 109-119.	1.7	38

#	ARTICLE	IF	CITATIONS
37	PREDICTION OF UPHILL CYCLING TIME TRIAL PERFORMANCE 930. Medicine and Science in Sports and Exercise, 1996, 28, 156.	0.4	3