

Edward P Debold

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

1,041
citations

430874

18
h-index

454955

30
g-index

48
all docs

48
docs citations

48
times ranked

1215
citing authors

#	ARTICLE	IF	CITATIONS
1	Hypertrophic and dilated cardiomyopathy mutations differentially affect the molecular force generation of mouse I \pm -cardiac myosin in the laser trap assay. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 293, H284-H291.	3.2	142
2	Mechanical Coupling between Myosin Molecules Causes Differences between Ensemble and Single-Molecule Measurements. <i>Biophysical Journal</i> , 2012, 103, 501-510.	0.5	93
3	Cardiac myosin missense mutations cause dilated cardiomyopathy in mouse models and depress molecular motor function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14525-14530.	7.1	90
4	Muscle Fatigue from the Perspective of a Single Crossbridge. <i>Medicine and Science in Sports and Exercise</i> , 2016, 48, 2270-2280.	0.4	67
5	Slip Sliding Away: Load-Dependence of Velocity Generated by Skeletal Muscle Myosin Molecules in the Laser Trap. <i>Biophysical Journal</i> , 2005, 89, L34-L36.	0.5	66
6	Direct Observation of Phosphate Inhibiting the Force-Generating Capacity of a Miniensemble of Myosin Molecules. <i>Biophysical Journal</i> , 2013, 105, 2374-2384.	0.5	51
7	Human actin mutations associated with hypertrophic and dilated cardiomyopathies demonstrate distinct thin filament regulatory properties in vitro. <i>Journal of Molecular and Cellular Cardiology</i> , 2010, 48, 286-292.	1.9	46
8	Recent Insights into Muscle Fatigue at the Cross-Bridge Level. <i>Frontiers in Physiology</i> , 2012, 3, 151.	2.8	45
9	Phosphate and acidosis act synergistically to depress peak power in rat muscle fibers. <i>American Journal of Physiology - Cell Physiology</i> , 2014, 307, C939-C950.	4.6	44
10	Phosphate enhances myosin-powered actin filament velocity under acidic conditions in a motility assay. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2011, 300, R1401-R1408.	1.8	40
11	Potential molecular mechanisms underlying muscle fatigue mediated by reactive oxygen and nitrogen species. <i>Frontiers in Physiology</i> , 2015, 6, 239.	2.8	40
12	Reliability and Validity of a Portable Metabolic Measurement System. <i>Applied Physiology, Nutrition, and Metabolism</i> , 1996, 21, 109-119.	1.7	38
13	Recent Insights into the Molecular Basis of Muscular Fatigue. <i>Medicine and Science in Sports and Exercise</i> , 2012, 44, 1440-1452.	0.4	35
14	The effects of phosphate and acidosis on regulated thin-filament velocity in an in vitro motility assay. <i>Journal of Applied Physiology</i> , 2012, 113, 1413-1422.	2.5	32
15	Magnesium Modulates Actin Binding and ADP Release in Myosin Motors. <i>Journal of Biological Chemistry</i> , 2014, 289, 23977-23991.	3.4	31
16	Acidosis and Phosphate Directly Reduce Myosin's Force-Generating Capacity Through Distinct Molecular Mechanisms. <i>Frontiers in Physiology</i> , 2018, 9, 862.	2.8	25
17	The molecular basis of thin filament activation: from single molecule to muscle. <i>Scientific Reports</i> , 2017, 7, 1822.	3.3	23
18	FRET and optical trapping reveal mechanisms of actin activation of the power stroke and phosphate release in myosin V. <i>Journal of Biological Chemistry</i> , 2020, 295, 17383-17397.	3.4	22

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19	Ca ⁺⁺ -sensitizing mutations in troponin, P _i , and 2-deoxyATP alter the depressive effect of acidosis on regulated thin-filament velocity. <i>Journal of Applied Physiology</i> , 2014, 116, 1165-1174.	2.5	20
20	Acidosis affects muscle contraction by slowing the rates myosin attaches to and detaches from actin. <i>Journal of Muscle Research and Cell Motility</i> , 2018, 39, 135-147.	2.0	19
21	Recent insights into the relative timing of myosin's powerstroke and release of phosphate. <i>Cytoskeleton</i> , 2021, 78, 448-458.	2.0	15
22	Preexercise Feeding in Untrained Adolescent Boys Does Not Affect Responses to Endurance Exercise or Performance. <i>International Journal of Sport Nutrition</i> , 1997, 7, 207-218.	1.7	11
23	Decreased Myofilament Calcium Sensitivity Plays a Significant Role in Muscle Fatigue. <i>Exercise and Sport Sciences Reviews</i> , 2016, 44, 144-149.	3.0	11
24	Myosin's powerstroke occurs prior to the release of phosphate from the active site. <i>Cytoskeleton</i> , 2021, 78, 185-198.	2.0	11
25	Cardiac Muscle Activation Blunted by a Mutation to the Regulatory Component, Troponin T. <i>Journal of Biological Chemistry</i> , 2013, 288, 26335-26349.	3.4	8
26	Acidosis decreases the Ca ²⁺ sensitivity of thin filaments by preventing the first actomyosin interaction. <i>American Journal of Physiology - Cell Physiology</i> , 2019, 317, C714-C718.	4.6	5
27	Modifications of myofilament protein phosphorylation and function in response to cardiac arrest induced in a swine model. <i>Frontiers in Physiology</i> , 2015, 6, 199.	2.8	4
28	Molecular motor teamwork. <i>Nature Nanotechnology</i> , 2015, 10, 656-657.	31.5	3
29	PREDICTION OF UPHILL CYCLING TIME TRIAL PERFORMANCE 930. <i>Medicine and Science in Sports and Exercise</i> , 1996, 28, 156.	0.4	3
30	Positional Isomers of a Non-Nucleoside Substrate Differentially Affect Myosin Function. <i>Biophysical Journal</i> , 2020, 119, 567-580.	0.5	1
31	Acidosis Affects Myosin's Ability to Move Actin in a Single Molecule Laser Trap Assay. <i>Medicine and Science in Sports and Exercise</i> , 2007, 39, S8.	0.4	0
32	Phosphate Enhances Actin Filament Velocity at Low pH in an in vitro Motility Assay. <i>Biophysical Journal</i> , 2011, 100, 128a-129a.	0.5	0
33	The Effects of Phosphate and Hydrogen Ions on the Velocity-pCa Relationship in a Motility Assay. <i>Biophysical Journal</i> , 2012, 102, 154a.	0.5	0
34	The Effect of Phosphate on the Force Generating Capacity of a Mini-Ensemble of Myosin Measured in a Laser Trap Assay. <i>Biophysical Journal</i> , 2013, 104, 306a.	0.5	0
35	Altered Flexibility affects Regulatory Functions of Cardiac $\hat{\pm}$ -Tropomyosin ($\hat{\pm}$ -Tm) in a Novel Transgenic Mouse Model Expressing $\hat{\pm}$ -Tm-D137L. <i>Biophysical Journal</i> , 2013, 104, 448a.	0.5	0
36	Phosphate Enhances Regulated Thin Filament Velocity at Acidic pH in the Motility Assay. <i>Biophysical Journal</i> , 2013, 104, 450a-451a.	0.5	0

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37	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