

William H Guilford

List of Publications by Year in descending order

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55
papers

2,039
citations

516215

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377514

34
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57
all docs

57
docs citations

57
times ranked

2509
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative Comparison of Algorithms for Tracking Single Fluorescent Particles. Biophysical Journal, 2001, 81, 2378-2388.	0.2	813
2	Mechanics of actomyosin bonds in different nucleotide states are tuned to muscle contraction. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9844-9849.	3.3	243
3	TEACHING PEER REVIEW AND THE PROCESS OF SCIENTIFIC WRITING. American Journal of Physiology - Advances in Physiology Education, 2001, 25, 167-175.	0.8	120
4	Spread from the Sink to the Patient: <i>In Situ</i> Study Using Green Fluorescent Protein (GFP)-Expressing Escherichia coli To Model Bacterial Dispersion from Hand-Washing Sink-Trap Reservoirs. Applied and Environmental Microbiology, 2017, 83, .	1.4	120
5	The Light Chain Binding Domain of Expressed Smooth Muscle Heavy Meromyosin Acts as a Mechanical Lever. Journal of Biological Chemistry, 2000, 275, 37167-37172.	1.6	91
6	The Molecular Mechanics of P- and L-Selectin Lectin Domains Binding to PSGL-1. Biophysical Journal, 2004, 86, 544-554.	0.2	81
7	The reciprocal coordination and mechanics of molecular motors in living cells. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3190-3195.	3.3	62
8	Peroxynitrite inhibits myofibrillar protein function in an in vitro assay of motility. Free Radical Biology and Medicine, 2008, 44, 14-23.	1.3	58
9	Direct Regulation of Striated Muscle Myosins by Nitric Oxide and Endogenous Nitrosothiols. PLoS ONE, 2010, 5, e11209.	1.1	56
10	Phosphorylation of tropomyosin extends cooperative binding of myosin beyond a single regulatory unit. Cytoskeleton, 2009, 66, 10-23.	4.4	43
11	The tail of myosin reduces actin filament velocity in the in vitro motility assay. Cytoskeleton, 2004, 59, 264-272.	4.4	34
12	Creating multiple time-shared laser traps with simultaneous displacement detection using digital signal processing hardware. Analytical Biochemistry, 2004, 326, 153-166.	1.1	32
13	Enhancement of L-Selectin, but Not P-Selectin, Bond Formation Frequency by Convective Flow. Biophysical Journal, 2008, 94, 1034-1045.	0.2	31
14	Effects of radioprotectors on DNA damage and repair, proteins, and cell-cycle progression. , 1988, 39, 133-137.		25
15	Direct measurement of cortical force generation and polarization in a living parasite. Molecular Biology of the Cell, 2017, 28, 1912-1923.	0.9	25
16	Alterations to myofibrillar protein function in nonischemic regions of the heart early after myocardial infarction. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H654-H659.	1.5	24
17	The molecular mechanics of smooth muscle myosin. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 1998, 119, 451-458.	0.7	22
18	The Effects of Load on E-Selectin Bond Rupture and Bond Formation. Cellular and Molecular Bioengineering, 2010, 3, 128-138.	1.0	22

#	ARTICLE	IF	CITATIONS
19	S-nitrosylation of cytoskeletal proteins. <i>Cytoskeleton</i> , 2019, 76, 243-253.	1.0	17
20	Nutrients influence the dynamics of <i>Klebsiella pneumoniae</i> carbapenemase producing enterobacteriales in transplanted hospital sinks. <i>Water Research</i> , 2020, 176, 115707.	5.3	17
21	The Mechanics of Arteriole-Tissue Interaction. <i>Microvascular Research</i> , 1995, 50, 260-287.	1.1	15
22	Force Spectroscopy Reveals Multiple "Closed States" of the Muscle Thin Filament. <i>Journal of Biological Chemistry</i> , 2011, 286, 24135-24141.	1.6	10
23	A Quantitative Comparison of Blocking Agents in the In Vitro Motility Assay. <i>Cellular and Molecular Bioengineering</i> , 2012, 5, 44-51.	1.0	10
24	Thermal Denaturation of Tilapia Myosin and Its Subunits as Affected by Constantly Increasing Temperature. <i>Journal of Food Science</i> , 2011, 76, C1018-24.	1.5	9
25	The viscoelastic properties of microvilli are dependent upon the cell-surface molecule. <i>Biochemical and Biophysical Research Communications</i> , 2010, 397, 621-625.	1.0	8
26	Loop 2 of myosin is a force-dependent inhibitor of the rigor bond. <i>Journal of Muscle Research and Cell Motility</i> , 2014, 35, 143-152.	0.9	7
27	Actin nitrosylation and its effect on myosin driven motility. <i>AIMS Molecular Science</i> , 2016, 3, 426-438.	0.3	7
28	"Shrink Wrapping" Lectures: Teaching Cell and Molecular Biology within the Context of Human Pathologies. <i>CBE: Life Sciences Education</i> , 2005, 4, 138-142.	0.7	5
29	Laser Trap Measurements of Flagellar Membrane Motility. <i>Methods in Enzymology</i> , 2013, 525, 85-107.	0.4	5
30	Laser Trap Characterization and Modeling of Phototaxis in <i>Chlamydomonas reinhardtii</i> . <i>Cellular and Molecular Bioengineering</i> , 2009, 2, 244-254.	1.0	4
31	Design and implementation of a student-taught course on research in regenerative medicine. <i>American Journal of Physiology - Advances in Physiology Education</i> , 2018, 42, 360-367.	0.8	4
32	Whole-cell flagellum-based motility studied using back focal plane interferometry in a laser trap transducer. , 2006, , .		3
33	A High-Throughput Technique Reveals the Load- and Site Density-Dependent Kinetics of E-Selectin. <i>Cellular and Molecular Bioengineering</i> , 2012, 5, 493-503.	1.0	3
34	Perspectives on Successfully Implementing BME Design Courses Online: Notes from an ASEE Workshop. <i>Biomedical Engineering Education</i> , 2021, 1, 145-148.	0.6	2
35	Work in Progress: A Clinical Immersion Program for Broad Curricular Impact. , 2019, 2019, .		2
36	High Resolution Optical Tracking to Identify Adhesive Events in Vitro. <i>Conference Record of the Asilomar Conference on Signals, Systems and Computers</i> , 2007, , .	0.0	1

#	ARTICLE	IF	CITATIONS
37	Design, Development, and Evaluation of a Novel Retraction Device for Gallbladder Extraction During Laparoscopic Cholecystectomy. Journal of Gastrointestinal Surgery, 2014, 18, 334-339.	0.9	1
38	Integrating Systems Approaches into Education Using Active Case Studies. , 2018, , .		1
39	An Online Team-Based Practical Exam in Lieu of Final Reports for a Design Course. Biomedical Engineering Education, 2021, 1, 171-173.	0.6	1
40	Summative versus formative assessments in teaching physiology to biomedical engineering students: a comparison of outcomes. , 0, , .		1
41	The Forgotten Steps of Engineering Design: Design-Build Experiences and their Downstream Effect on Capstone Design Projects. , 0, , .		1
42	First year engineering students are strikingly impoverished in their self-concept as professional engineers. , 0, , .		1
43	A Problem Based Approach To Teaching Cell And Molecular Biology To Engineers. , 0, , .		1
44	Use Of An Audience Response System For Continuous Summative Assessment. , 0, , .		1
45	Experimental case studies to engage higher cognitive skills. American Journal of Physiology - Advances in Physiology Education, 2009, 33, 358-359.	0.8	0
46	Intravascular near-infrared fluorescence imaging with intravascular ultrasound guidance. Proceedings of SPIE, 2013, , .	0.8	0
47	A Skills-focused Approach to Teaching Design Fundamentals to Large Numbers of Students and Its Effect on Engineering Design Self-efficacy. , 0, , .		0
48	Work in Progress: The Effect of Immersive Design-Build Experiences on Knowledge of the Engineering Design Process. , 0, , .		0
49	Creativity Activities in a Design Course Fail to Elicit Gains in Creativity Over and Above those Elicited by the Design Course Itself. , 0, , .		0
50	Clinician-engineer Career Bias and Its Relationship to Engineering Design Self-efficacy among Biomedical Engineering Undergraduates. , 0, , .		0
51	Improved retention and recall with a peer reviewed writing assignment. , 0, , .		0
52	A Course in Biomaterials Taught Using the Socratic Method. , 0, , .		0
53	Suitability Of An Undergraduate Curriculum In Biomedical Engineering For Premedical Study. , 0, , .		0
54	Significant Factors in Successfully Matching Students to Biomedical Engineering Research Laboratories. , 0, , .		0

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55	Learner Satisfaction and Quality of Student-Faculty Interactions in Traditional vs. Blended Classrooms. , 0, , .		0