William H Guilford

List of Publications by Year
in descending order

55 papers	2,039 citations	516710 16 h-index	377865 34 g-index
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.	0.5	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.	7.1	243
3	TEACHING PEER REVIEW AND THE PROCESS OF SCIENTIFIC WRITING. American Journal of Physiology - Advances in Physiology Education, 2001, 25, 167-175.	1.6	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, .	3.1	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.	3.4	91
6	The Molecular Mechanics of P- and L-Selectin Lectin Domains Binding to PSGL-1. Biophysical Journal, 2004, 86, 544-554.	0.5	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.	7.1	62
8	Peroxynitrite inhibits myofibrillar protein function in an in vitro assay of motility. Free Radical Biology and Medicine, 2008, 44, 14-23.	2.9	58
9	Direct Regulation of Striated Muscle Myosins by Nitric Oxide and Endogenous Nitrosothiols. PLoS ONE, 2010, 5, e11209.	2.5	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.	2.4	32
13	Enhancement of L-Selectin, but Not P-Selectin, Bond Formation Frequency by Convective Flow. Biophysical Journal, 2008, 94, 1034-1045.	0.5	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.	2.1	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.	3.2	24
17	The molecular mechanics of smooth muscle myosin. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 1998, 119, 451-458.	1.6	22
18	The Effects of Load on E-Selectin Bond Rupture and Bond Formation. Cellular and Molecular Bioengineering, 2010, 3, 128-138.	2.1	22

#	Article	IF	Citations
19	Sâ€nitrosylation of cytoskeletal proteins. Cytoskeleton, 2019, 76, 243-253.	2.0	17
20	Nutrients influence the dynamics of Klebsiella pneumoniae carbapenemase producing enterobacterales in transplanted hospital sinks. Water Research, 2020, 176, 115707.	11.3	17
21	The Mechanics of Arteriole-Tissue Interaction. Microvascular Research, 1995, 50, 260-287.	2.5	15
22	Force Spectroscopy Reveals Multiple â€œClosed Statesâ€•of the Muscle Thin Filament. Journal of Biological Chemistry, 2011, 286, 24135-24141.	3.4	10
23	A Quantitative Comparison of Blocking Agents in the In Vitro Motility Assay. Cellular and Molecular Bioengineering, 2012, 5, 44-51.	2.1	10
24	Thermal Denaturation of Tilapia Myosin and Its Subunits as Affected by Constantly Increasing Temperature. Journal of Food Science, 2011, 76, C1018-24.	3.1	9
25	The viscoelastic properties of microvilli are dependent upon the cell-surface molecule. Biochemical and Biophysical Research Communications, 2010, 397, 621-625.	2.1	8
26	Loop 2 of myosin is a force-dependent inhibitor of the rigor bond. Journal of Muscle Research and Cell Motility, 2014, 35, 143-152.	2.0	7
27	Actin nitrosylation and its effect on myosin driven motility. AIMS Molecular Science, 2016, 3, 426-438.	0.5	7
28	â€œShrink Wrappingâ€•Lectures: Teaching Cell and Molecular Biology within the Context of Human Pathologies. CBE: Life Sciences Education, 2005, 4, 138-142.	0.7	5
29	Laser Trap Measurements of Flagellar Membrane Motility. Methods in Enzymology, 2013, 525, 85-107.	1.0	5
30	Laser Trap Characterization and Modeling of Phototaxis in Chlamydomonas reinhardtii. Cellular and Molecular Bioengineering, 2009, 2, 244-254.	2.1	4
31	Design and implementation of a student-taught course on research in regenerative medicine. American Journal of Physiology - Advances in Physiology Education, 2018, 42, 360-367.	1.6	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. Cellular and Molecular Bioengineering, 2012, 5, 493-503.	2.1	3
34	Perspectives on Successfully Implementing BME Design Courses Online: Notes from an ASEE Workshop. Biomedical Engineering Education, 2021, 1, 145-148.	0.7	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. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 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.	1.7	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.	0.7	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.	1.6	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

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