

Allen J Ehrlicher

List of Publications by Year in descending order

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48
papers

3,444
citations

279487

23
h-index

253896

43
g-index

54
all docs

54
docs citations

54
times ranked

5441
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing the Stochastic, Motor-Driven Properties of the Cytoplasm Using Force Spectrum Microscopy. <i>Cell</i> , 2014, 158, 822-832.	13.5	444
2	The Forces Behind Cell Movement. <i>International Journal of Biological Sciences</i> , 2007, 3, 303-317.	2.6	356
3	Mechanical strain in actin networks regulates FilGAP and integrin binding to filamin A. <i>Nature</i> , 2011, 478, 260-263.	13.7	309
4	Cytoskeletal mechanics of proplatelet maturation and platelet release. <i>Journal of Cell Biology</i> , 2010, 191, 861-874.	2.3	228
5	The Role of Vimentin Intermediate Filaments in Cortical and Cytoplasmic Mechanics. <i>Biophysical Journal</i> , 2013, 105, 1562-1568.	0.2	225
6	Controlled Synthesis of Cell-Laden Microgels by Radical-Free Gelation in Droplet Microfluidics. <i>Journal of the American Chemical Society</i> , 2012, 134, 4983-4989.	6.6	208
7	Guiding neuronal growth with light. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 16024-16028.	3.3	201
8	An Intestinal Organ Culture System Uncovers a Role for the Nervous System in Microbe-Immune Crosstalk. <i>Cell</i> , 2017, 168, 1135-1148.e12.	13.5	182
9	Platelet bioreactor-on-a-chip. <i>Blood</i> , 2014, 124, 1857-1867.	0.6	177
10	Microtubule sliding drives proplatelet elongation and is dependent on cytoplasmic dynein. <i>Blood</i> , 2015, 125, 860-868.	0.6	87
11	Alpha-actinin binding kinetics modulate cellular dynamics and force generation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6619-6624.	3.3	87
12	Endocytic proteins with prion-like domains form viscoelastic condensates that enable membrane remodeling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	84
13	Dewetting-Induced Membrane Formation by Adhesion of Amphiphile-Laden Interfaces. <i>Journal of the American Chemical Society</i> , 2011, 133, 4420-4426.	6.6	79
14	Actin Filament Elasticity and Retrograde Flow Shape the Force-Velocity Relation of Motile Cells. <i>Biophysical Journal</i> , 2012, 102, 287-295.	0.2	69
15	Engineering bioprintable alginate/gelatin composite hydrogels with tunable mechanical and cell adhesive properties to modulate tumor spheroid growth kinetics. <i>Biofabrication</i> , 2020, 12, 015024.	3.7	67
16	Cell migration through small gaps. <i>European Biophysics Journal</i> , 2006, 35, 713-719.	1.2	53
17	Traction Force Screening Enabled by Compliant PDMS Elastomers. <i>Biophysical Journal</i> , 2018, 114, 2194-2199.	0.2	50
18	Advancing the Mechanical Performance of Glasses: Perspectives and Challenges. <i>Advanced Materials</i> , 2022, 34, e2109029.	11.1	50

#	ARTICLE	IF	CITATIONS
19	Centrifugation and index matching yield a strong and transparent bioinspired nacreous composite. <i>Science</i> , 2021, 373, 1229-1234.	6.0	48
20	Composite alginate gels for tunable cellular microenvironment mechanics. <i>Scientific Reports</i> , 2016, 6, 30854.	1.6	43
21	Microwave dielectric heating of non-aqueous droplets in a microfluidic device for nanoparticle synthesis. <i>Nanoscale</i> , 2013, 5, 5468.	2.8	36
22	Buckling, stiffening, and negative dissipation in the dynamics of a biopolymer in an active medium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 19776-19779.	3.3	32
23	Decellularized Extracellular Matrix Composite Hydrogel Bioprints for the Development of 3D Bioprinted Head and Neck in Vitro Tumor Models. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 5288-5300.	2.6	31
24	Dynamic actin cross-linking governs the cytoplasm's transition to fluid-like behavior. <i>Molecular Biology of the Cell</i> , 2020, 31, 1744-1752.	0.9	23
25	Neuronal and metastatic cancer cells: Unlike brothers. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 3126-3131.	1.9	18
26	Spatial distribution of lamin A/C determines nuclear stiffness and stress-mediated deformation. <i>Journal of Cell Science</i> , 2021, 134, .	1.2	18
27	Contracting to stiffness. <i>Nature Materials</i> , 2011, 10, 12-13.	13.3	17
28	Nuclei deformation reveals pressure distributions in 3D cell clusters. <i>PLoS ONE</i> , 2019, 14, e0221753.	1.1	17
29	High Throughput Traction Force Microscopy Using PDMS Reveals Dose-Dependent Effects of Transforming Growth Factor- β on the Epithelial-to-Mesenchymal Transition. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	15
30	Growth and Attachment-Facilitated Entry of Bacteria into Submicrometer Pores Can Enhance Bioremediation and Oil Recovery in Low-Permeability and Microporous Media. <i>Environmental Science and Technology Letters</i> , 2016, 3, 399-403.	3.9	13
31	Bioprintable, Stiffness-Tunable Collagen-Alginate Microgels for Increased Throughput 3D Cell Culture Studies. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 2814-2822.	2.6	13
32	Statistical analysis of neuronal growth: edge dynamics and the effect of a focused laser on growth cone motility. <i>New Journal of Physics</i> , 2007, 9, 426-426.	1.2	12
33	Optical Neuronal Guidance. <i>Methods in Cell Biology</i> , 2007, 83, 495-520.	0.5	12
34	Tissue traction microscopy to quantify muscle contraction within precision-cut lung slices. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2020, 318, L323-L330.	1.3	11
35	Toward embryo cryopreservation-on-a-chip: A standalone microfluidic platform for gradual loading of cryoprotectants to minimize cryoinjuries. <i>Biomicrofluidics</i> , 2021, 15, 034104.	1.2	11
36	Structurally Governed Cell Mechanotransduction through Multiscale Modeling. <i>Scientific Reports</i> , 2015, 5, 8622.	1.6	10

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37	Pattern-Based Contractility Screening, a Reference-Free Alternative to Traction Force Microscopy Methodology. ACS Applied Materials & Interfaces, 2021, 13, 19726-19735.	4.0	10
38	Substrate stiffening promotes VEGF-A functions via the PI3K/Akt/mTOR pathway. Biochemical and Biophysical Research Communications, 2022, 586, 27-33.	1.0	10
39	Multiplexed, high-throughput measurements of cell contraction and endothelial barrier function. Laboratory Investigation, 2019, 99, 138-145.	1.7	7
40	Optical control of neuronal growth. , 2004, , .		5
41	Robust mechanobiological behavior emerges in heterogeneous myosin systems. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8147-E8154.	3.3	5
42	A nondestructive contactless technique to assess the viscoelasticity of blood clots in real-time. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103921.	1.5	4
43	Cell monolayer deformation microscopy reveals mechanical fragility of cell monolayers following EMT. Biophysical Journal, 2022, , .	0.2	4
44	A cost-effective microindentation system for soft material characterization. , 2015, , .		2
45	GTPase-Dependent Mechanointegration of Shear-Mediated Cell Contractility Through Dynamic Binding of FLNa and FilGAP. Frontiers in Physics, 2022, 10, .	1.0	1
46	Force Spectrum Microscopy Reveals Active Diffusive-Like Fluctuations in Living Cells. Biophysical Journal, 2014, 106, 244a.	0.2	0
47	Pattern-Based Contractile Screening (PaCS), A Reference-Free Traction Force Microscopy Methodology, Reveals Contractile Differences in Breast Cancer Cells. Biophysical Journal, 2021, 120, 65a.	0.2	0
48	10.1063/5.0047185.1. , 2021, , .		0