Emad Moeendarbary

List of Publications by Year
in descending order

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45 papers	4,037 citations	201674 27 h-index	265206 42 g-index
49 all docs	49 docs citations	49 times ranked	6899 citing authors

#	Article	IF	Citations
1	Mechanotransduction and YAP-dependent matrix remodelling is required for the generation and maintenance of cancer-associated fibroblasts. Nature Cell Biology, 2013, 15, 637-646.	10.3	1,088
2	The cytoplasm of living cells behaves as a poroelastic material. Nature Materials, 2013, 12, 253-261.	27.5	527
3	The soft mechanical signature of glial scars in the central nervous system. Nature Communications, 2017, 8, 14787.	12.8	292
4	Cell mechanics: principles, practices, and prospects. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2014, 6, 371-388.	6.6	232
5	Complex mechanics of the heterogeneous extracellular matrix in cancer. Extreme Mechanics Letters, 2018, 21, 25-34.	4.1	158
6	CNS Cell Distribution and Axon Orientation Determine Local Spinal Cord Mechanical Properties. Biophysical Journal, 2015, 108, 2137-2147.	0.5	136
7	Actin kinetics shapes cortical network structure and mechanics. Science Advances, 2016, 2, e1501337.	10.3	130
8	Hypoxia and loss of <scp>PHD</scp> 2 inactivate stromal fibroblasts to decrease tumour stiffness andÂmetastasis. EMBO Reports, 2015, 16, 1394-1408.	4.5	120
9	Dickkopf-3 links HSF1 and YAP/TAZ signalling to control aggressive behaviours in cancer-associated fibroblasts. Nature Communications, 2019, 10, 130.	12.8	116
10	A Chemomechanical Model for Nuclear Morphology and Stresses during Cell Transendothelial Migration. Biophysical Journal, 2016, 111, 1541-1552.	0.5	112
11	Cdc42EP3/BORG2 and Septin Network Enables Mechano-transduction and the Emergence of Cancer-Associated Fibroblasts. Cell Reports, 2015, 13, 2699-2714.	6.4	106
12	PP1-Mediated Moesin Dephosphorylation Couples Polar Relaxation to Mitotic Exit. Current Biology, 2012, 22, 231-236.	3.9	86
13	Super-Resolved Traction Force Microscopy (STFM). Nano Letters, 2016, 16, 2633-2638.	9.1	86
14	Cytoskeletal Control of Antigen-Dependent T Cell Activation. Cell Reports, 2019, 26, 3369-3379.e5.	6.4	68
15	In Vitro Modeling of Mechanics in Cancer Metastasis. ACS Biomaterials Science and Engineering, 2018, 4, 294-301.	5.2	64
16	Mechanobiology of the brain in ageing and Alzheimer's disease. European Journal of Neuroscience, 2021, 53, 3851-3878.	2.6	61
17	Atomic force microscopy-based force measurements on animal cells and tissues. Methods in Cell Biology, 2015, 125, 211-235.	1.1	58
18	Infection Augments Expression of Mechanosensing Piezo1 Channels in Amyloid Plaque-Reactive Astrocytes. Frontiers in Aging Neuroscience, 2018, 10, 332.	3.4	57

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19	Balance of mechanical forces drives endothelial gap formation and may facilitate cancer and immune-cell extravasation. PLoS Computational Biology, 2019, 15, e1006395.	3.2	53
20	Spatiotemporally Super-Resolved Volumetric Traction Force Microscopy. Nano Letters, 2019, 19, 4427-4434.	9.1	43
21	Excess F-actin mechanically impedes mitosis leading to cytokinesis failure in X-linked neutropenia by exceeding Aurora B kinase error correction capacity. Blood, 2012, 120, 3803-3811.	1.4	42
22	Laminin Levels Regulate Tissue Migration and Anterior-Posterior Polarity during Egg Morphogenesis in Drosophila. Cell Reports, 2017, 20, 211-223.	6.4	42
23	Tumor cell nuclei soften during transendothelial migration. Journal of Biomechanics, 2021, 121, 110400.	2.1	42
24	Mechanical Response of Neural Cells to Physiologically Relevant Stiffness Gradients. Advanced Healthcare Materials, 2020, 9, e1901036.	7.6	41
25	3D In Vitro Models for Investigating the Role of Stiffness in Cancer Invasion. ACS Biomaterials Science and Engineering, 2023, 9, 3729-3741.	5.2	41
26	Astigmatic traction force microscopy (aTFM). Nature Communications, 2021, 12, 2168.	12.8	34
27	A new framework for characterization of poroelastic materials using indentation. Acta Biomaterialia, 2020, 102, 138-148.	8.3	32
28	Quantifying cell-generated forces: Poissonâ€™s ratio matters. Communications Physics, 2021, 4, 237.	5.3	22
29	Migration of DNA molecules through entropic trap arrays: a dissipative particle dynamics study. Microfluidics and Nanofluidics, 2010, 8, 243-254.	2.2	21
30	Biofabrication of vasculature in microphysiological models of bone. Biofabrication, 2021, 13, 032004.	7.1	19
31	Poroelasticity of Living Tissues. , 2019, , 238-245.		17
32	The multiscale hierarchical structure of Heloderma suspectum osteoderms and their mechanical properties. Acta Biomaterialia, 2020, 107, 194-203.	8.3	16
33	Theta-Burst Stimulation of Hippocampal Slices Induces Network-Level Calcium Oscillations and Activates Analogous Gene Transcription to Spatial Learning. PLoS ONE, 2014, 9, e100546.	2.5	14
34	Dissipative particle dynamics simulation of entropic trapping for DNA separation. Sensors and Actuators A: Physical, 2010, 157, 328-335.	4.1	12
35	KIT is dispensable for physiological organ vascularisation in the embryo. Angiogenesis, 2022, 25, 343-353.	7.2	8
36	High-Strouhal-number pulsatile flow in a curved pipe. Journal of Fluid Mechanics, 2021, 923, .	3.4	7

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37	Hydraulic cracking. Nature Materials, 2015, 14, 268-269.	27.5	6
38	Engineered Models of Metastasis with Application to Study Cancer Biomechanics. Advances in Experimental Medicine and Biology, 2018, 1092, 189-207.	1.6	5
39	Removal and dispersal of biofluid films by powered medical devices: Modeling infectious agent spreading in dentistry. IScience, 2021, 24, 103344.	4.1	4
40	Acoustics and vibrations in a complex piping network with pump startupâ€“shutdown transients. International Journal of Mechanical Sciences, 2022, 227, 107357.	6.7	4
41	Spatiotemporal immunolocalisation of REST in the brain of healthy ageing and Alzheimerâ€™s disease rats. FEBS Open Bio, 2021, 11, 146-163.	2.3	3
42	Poroelastic osmoregulation of living cell volume. IScience, 2021, 24, 103482.	4.1	3
43	Acoustics interaction in a complex piping network with multiple pulsatile sources. Journal of Sound and Vibration, 2022, 528, 116863.	3.9	3
44	Abstract A53: Probing forces and modulation of cancer cell mechanical properties during transendothelial migration. , 2017, , .		1
45	Mechanobiological Control of the Immune Response. Biophysical Journal, 2019, 116, 550a.	0.5	0