Ruogang Zhao

List of Publications by Year
in descending order

37 papers	1,586 citations	430874 18 h-index	434195 31 g-index
37 all docs	37 docs citations	37 times ranked	2599 citing authors

#	Article	IF	Citations
1	Influence of substrate stiffness on the phenotype of heart cells. Biotechnology and Bioengineering, 2010, 105, 1148-1160.	3.3	307
2	Calcification by Valve Interstitial Cells Is Regulated by the Stiffness of the Extracellular Matrix. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 936-942.	2.4	294
3	YAP and TAZ control peripheral myelination and the expression of laminin receptors in Schwann cells. Nature Neuroscience, 2016, 19, 879-887.	14.8	148
4	Fibrotic microtissue array to predict anti-fibrosis drug efficacy. Nature Communications, 2018, 9, 2066.	12.8	102
5	Decoupling Cell and Matrix Mechanics in Engineered Microtissues Using Magnetically Actuated Microcantilevers. Advanced Materials, 2013, 25, 1699-1705.	21.0	89
6	Dispersible hydrogel force sensors reveal patterns of solid mechanical stress in multicellular spheroid cultures. Nature Communications, 2019, 10, 144.	12.8	83
7	Measurement of layer-specific mechanical properties in multilayered biomaterials by micropipette aspiration. Acta Biomaterialia, 2011, 7, 1220-1227.	8.3	78
8	Force-driven evolution of mesoscale structure in engineered 3D microtissues and the modulation of tissue stiffening. Biomaterials, 2014, 35, 5056-5064.	11.4	52
9	Comparison of analytical and inverse finite element approaches to estimate cell viscoelastic properties by micropipette aspiration. Journal of Biomechanics, 2009, 42, 2768-2773.	2.1	50
10	Fast Stereolithography Printing of Largeâ€Scale Biocompatible Hydrogel Models. Advanced Healthcare Materials, 2021, 10, e2002103.	7.6	48
11	Microclot array elastometry for integrated measurement of thrombus formation and clot biomechanics under fluid shear. Nature Communications, 2019, 10, 2051.	12.8	44
12	Exceptional point engineered glass slide for microscopic thermal mapping. Nature Communications, 2018, 9, 1764.	12.8	37
13	NANOG Reverses the Myogenic Differentiation Potential of Senescent Stem Cells by Restoring ACTIN Filamentous Organization and SRF-Dependent Gene Expression. Stem Cells, 2017, 35, 207-221.	3.2	30
14	A microfabricated magnetic actuation device for mechanical conditioning of arrays of 3D microtissues. Lab on A Chip, 2015, 15, 2496-2503.	6.0	29
15	Lung Microtissue Array to Screen the Fibrogenic Potential of Carbon Nanotubes. Scientific Reports, 2016, 6, 31304.	3.3	25
16	NANOG restores the impaired myogenic differentiation potential of skeletal myoblasts after multiple population doublings. Stem Cell Research, 2018, 26, 55-66.	0.7	24
17	Bioengineered Skeletal Muscle as a Model of Muscle Aging and Regeneration. Tissue Engineering - Part A, 2021, 27, 74-86.	3.1	20
18	NANOG Restores Contractility of Mesenchymal Stem Cell-Based Senescent Microtissues. Tissue Engineering - Part A, 2017, 23, 535-545.	3.1	18

#	Article	IF	Citations
19	Engineered Tissue Development in Biofabricated 3D Geometrical Confinementâ€"A Review. ACS Biomaterials Science and Engineering, 2019, 5, 3688-3702.	5.2	18
20	Semi-confined compression of microfabricated polymerized biomaterial constructs. Journal of Micromechanics and Microengineering, 2011, 21, 054014.	2.6	14
21	Magnetic approaches to study collective three-dimensional cell mechanics in long-term cultures (invited). Journal of Applied Physics, 2014, 115, 172616.	2.5	14
22	An improved texture correlation algorithm to measure substrateâ€"cytoskeletal network strain transfer under large compressive strain. Journal of Biomechanics, 2012, 45, 76-82.	2.1	11
23	Mechanosensitive expression of lamellipodin promotes intracellular stiffness, cyclin expression and cell proliferation. Journal of Cell Science, 2021, 134, .	2.0	11
24	Cyclic Stretching of Fibrotic Microtissue Array for Evaluation of Anti-Fibrosis Drugs. Cellular and Molecular Bioengineering, 2019, 12, 529-540.	2.1	8
25	Engineered microenvironment for the study of myofibroblast mechanobiology. Wound Repair and Regeneration, 2021, 29, 588-596.	3.0	7
26	Engineering tumor stromal mechanics for improved T cell therapy. Biochimica Et Biophysica Acta - General Subjects, 2022, 1866, 130095.	2.4	7
27	Parametric finite element study on slotted rectangular and square HSS tension connections. Journal of Constructional Steel Research, 2009, 65, 611-621.	3.9	4
28	A simple method to estimate the exponential material parameters of heart valve tissue based on analogy between uniaxial tension and micropipette aspiration. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1283-1290.	2.8	3
29	Tempo-Spatial Compressed Sensing of Organ-on-a-Chip for Pervasive Health. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 325-334.	6.3	3
30	Fibrosis on a Chip for Screening of Anti-Fibrosis Drugs. Methods in Molecular Biology, 2021, 2299, 263-274.	0.9	3
31	A tempo-spatial compressed sensing architecture for efficient high-throughput information acquisition in organs-on-a-chip. , 2017, , .		2
32	Compressive Buckling Fabrication of 3D Cellâ€Laden Microstructures. Advanced Science, 2021, 8, e2101027.	11.2	2
33	Force-sensing micropillar arrays for cell mechanics and mechanobiology. , 2021, , 23-42.		1
34	Magnetic Microtissue Stretching System to Study the Mechanobiology of 3D Fibroblast Populated Collagen Matrix. , 2012, , .		0
35	The Effects of Cell Contraction and Loss of Adhesion on the Apoptosis of Valve Interstitial Cells. , 2010, , .		0
36	Comparison of Analytical and Finite Element Implementation of Exponential Constitutive Models for Valve Tissue Under Micropipette Aspiration. , 2010, , .		0

#	Article	IF	Citations
37	Characterization of Regional Changes in Myocardial Strain and Stiffness after Myocardial Infarction using Speckleâ€Tracking Echocardiography in Swine. FASEB Journal, 2019, 33, 531.4.	0.5	0