

# Guoyou G Huang

## List of Publications by Year in descending order

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62  
papers

4,046  
citations

185998

28  
h-index

133063

59  
g-index

64  
all docs

64  
docs citations

64  
times ranked

6509  
citing authors

#	ARTICLE	IF	CITATIONS
1	Differential Responses of Primary Astrocytes Under Hyperthermic Temperatures. IEEE Transactions on Biomedical Engineering, 2023, 70, 125-134.	2.5	0
2	Mechanobiology in wound healing. Biophysical Journal, 2022, 121, 173-174.	0.2	1
3	Effect of gene mutation of plants on their mechano-sensibility: the mutant of EXO7OH4 influences the buckling of Arabidopsis trichomes. Analyst, The, 2021, 146, 5169-5176.	1.7	0
4	Investigating the Effect of Substrate Stiffness on the Redox State of Cardiac Fibroblasts Using Scanning Electrochemical Microscopy. Analytical Chemistry, 2021, 93, 5797-5804.	3.2	11
5	Fiber Networks: The Plasticity of Nanofibrous Matrix Regulates Fibroblast Activation in Fibrosis (Adv.) Tj ETQq1 1 0.784314 rgBT /Overdo	3.9	8
6	Matrix stiffness changes affect astrocyte phenotype in an in vitro injury model. NPC Asia Materials, 2021, 13, .	3.8	32
7	Bioinspired Microstructure Platform for Modular Cell-Laden Microgel Fabrication. Macromolecular Bioscience, 2021, 21, 2100110.	2.1	2
8	A new model of myofibroblast-cardiomyocyte interactions and their differences across species. Biophysical Journal, 2021, 120, 3764-3775.	0.2	1
9	The Plasticity of Nanofibrous Matrix Regulates Fibroblast Activation in Fibrosis. Advanced Healthcare Materials, 2021, 10, e2001856.	3.9	12
10	Engineering Biomaterials and Approaches for Mechanical Stretching of Cells in Three Dimensions. Frontiers in Bioengineering and Biotechnology, 2020, 8, 589590.	2.0	21
11	Nanoscale integrin cluster dynamics controls cellular mechanosensing via FAKY397 phosphorylation. Science Advances, 2020, 6, eaax1909.	4.7	69
12	Control of fibroblast shape in sequentially formed 3D hybrid hydrogels regulates cellular responses to microenvironmental cues. NPC Asia Materials, 2020, 12, .	3.8	20
13	Matrix stiffness controls cardiac fibroblast activation through regulating YAP via AT<sub>1</sub>R. Journal of Cellular Physiology, 2020, 235, 8345-8357.	2.0	28
14	Fluorescent conjugated polymer nanovector for in vivo tracking and regulating the fate of stem cells for restoring infarcted myocardium. Acta Biomaterialia, 2020, 109, 195-207.	4.1	12
15	Solvent-Free Fabrication of Carbon Nanotube/Silk Fibroin Electrospun Matrices for Enhancing Cardiomyocyte Functionalities. ACS Biomaterials Science and Engineering, 2020, 6, 1630-1640.	2.6	56
16	Microchannel Stiffness and Confinement Jointly Induce the Mesenchymal-Amoeboid Transition of Cancer Cell Migration. Nano Letters, 2019, 19, 5949-5958.	4.5	60
17	Differential Effects of Directional Cyclic Stretching on the Functionalities of Engineered Cardiac Tissues. ACS Applied Bio Materials, 2019, 2, 3508-3519.	2.3	17
18	Improved Resolution and Fidelity of Droplet-Based Bioprinting by Upward Ejection. ACS Biomaterials Science and Engineering, 2019, 5, 4112-4121.	2.6	30

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19	Mechanical microenvironments of living cells: a critical frontier in mechanobiology. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2019, 35, 265-269.	1.5	16
20	A mechano-electrical coupling model of neurons under stretching. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 93, 213-221.	1.5	12
21	Engineering ellipsoidal cap-like hydrogel particles as building blocks or sacrificial templates for three-dimensional cell culture. <i>Biomaterials Science</i> , 2018, 6, 885-892.	2.6	9
22	Reduced graphene oxide functionalized nanofibrous silk fibroin matrices for engineering excitable tissues. <i>NPG Asia Materials</i> , 2018, 10, 982-994.	3.8	88
23	Heterostructured Silk-Nanofiber-Reduced Graphene Oxide Composite Scaffold for SH-SY5Y Cell Alignment and Differentiation. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 39228-39237.	4.0	64
24	The protective effects of acupoint gel embedding on rats with myocardial ischemia-reperfusion injury. <i>Life Sciences</i> , 2018, 211, 51-62.	2.0	14
25	3D Spatiotemporal Mechanical Microenvironment: A Hydrogel-Based Platform for Guiding Stem Cell Fate. <i>Advanced Materials</i> , 2018, 30, e1705911.	11.1	162
26	Cellular mechanosensing of the biophysical microenvironment: A review of mathematical models of biophysical regulation of cell responses. <i>Physics of Life Reviews</i> , 2017, 22-23, 88-119.	1.5	67
27	Bioinspired Structures: Collective Wetting of a Natural Fibrous System and Its Application in Pump-Free Droplet Transfer ( <i>Adv. Funct. Mater.</i> 22/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	7.8	0
28	Collective Wetting of a Natural Fibrous System and Its Application in Pump-Free Droplet Transfer. <i>Advanced Functional Materials</i> , 2017, 27, 1606607.	7.8	18
29	Magnetically Actuated Droplet Manipulation and Its Potential Biomedical Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 1155-1166.	4.0	119
30	Energetics: An emerging frontier in cellular mechanosensing. <i>Physics of Life Reviews</i> , 2017, 22-23, 130-135.	1.5	2
31	Functional and Biomimetic Materials for Engineering of the Three-Dimensional Cell Microenvironment. <i>Chemical Reviews</i> , 2017, 117, 12764-12850.	23.0	582
32	Hydrogel-based methods for engineering cellular microenvironment with spatiotemporal gradients. <i>Critical Reviews in Biotechnology</i> , 2016, 36, 1-13.	5.1	39
33	In vitrosatially organizing the differentiation in individual multicellular stem cell aggregates. <i>Critical Reviews in Biotechnology</i> , 2016, 36, 20-31.	5.1	24
34	Elastoplastic Deformation of Silk Micro- and Nanostructures. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 893-899.	2.6	5
35	An approach to quantifying 3D responses of cells to extreme strain. <i>Scientific Reports</i> , 2016, 6, 19550.	1.6	30
36	Paracrine Effects of Adipose-Derived Stem Cells on Matrix Stiffness-Induced Cardiac Myofibroblast Differentiation via Angiotensin II Type 1 Receptor and Smad7. <i>Scientific Reports</i> , 2016, 6, 33067.	1.6	46

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37	An Integrated Stochastic Model of Matrix-Stiffness-Dependent Filopodial Dynamics. <i>Biophysical Journal</i> , 2016, 111, 2051-2061.	0.2	30
38	Magnetically actuated cell-laden microscale hydrogels for probing strain-induced cell responses in three dimensions. <i>NPG Asia Materials</i> , 2016, 8, e238-e238.	3.8	49
39	Bioprinting-Based High-Throughput Fabrication of Three-Dimensional MCF-7 Human Breast Cancer Cellular Spheroids. <i>Engineering</i> , 2015, 1, 269-274.	3.2	92
40	Dextran-based hydrogel formed by thiol-Michael addition reaction for 3D cell encapsulation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 128, 140-148.	2.5	75
41	Effect of viscoelasticity on skin pain sensation. <i>Theoretical and Applied Mechanics Letters</i> , 2015, 5, 222-226.	1.3	9
42	Bioprinting 3D cell-laden hydrogel microarray for screening human periodontal ligament stem cell response to extracellular matrix. <i>Biofabrication</i> , 2015, 7, 044105.	3.7	99
43	Reaction-induced swelling of ionic gels. <i>Soft Matter</i> , 2015, 11, 449-455.	1.2	7
44	Engineering Artificial Machines from Designable DNA Materials for Biomedical Applications. <i>Tissue Engineering - Part B: Reviews</i> , 2015, 21, 288-297.	2.5	5
45	Bioinspired engineering of honeycomb structure “Using nature to inspire human innovation. <i>Progress in Materials Science</i> , 2015, 74, 332-400.	16.0	501
46	Fabrication of Microscale Hydrogels with Tailored Microstructures based on Liquid Bridge Phenomenon. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 11134-11140.	4.0	26
47	Mechanoregulation of cardiac myofibroblast differentiation: implications for cardiac fibrosis and therapy. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 309, H532-H542.	1.5	58
48	Advances in fabricating double-emulsion droplets and their biomedical applications. <i>Microfluidics and Nanofluidics</i> , 2015, 19, 1071-1090.	1.0	110
49	Advances in Hydrogel-based Bottom-Up Tissue Engineering. <i>Scientia Sinica Vitae</i> , 2015, 45, 256-270.	0.1	3
50	Engineering physical microenvironment for stem cell based regenerative medicine. <i>Drug Discovery Today</i> , 2014, 19, 763-773.	3.2	53
51	Engineering cell alignment in vitro. <i>Biotechnology Advances</i> , 2014, 32, 347-365.	6.0	220
52	Engineering Three-Dimensional Cardiac Microtissues for Potential Drug Screening Applications. <i>Current Medicinal Chemistry</i> , 2014, 21, 2497-2509.	1.2	14
53	Benchtop fabrication of three-dimensional reconfigurable microfluidic devices from paper“polymer composite. <i>Lab on A Chip</i> , 2013, 13, 4745.	3.1	37
54	Helical spring template fabrication of cell“laden microfluidic hydrogels for tissue engineering. <i>Biotechnology and Bioengineering</i> , 2013, 110, 980-989.	1.7	25

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55	Magnetic Hydrogels and Their Potential Biomedical Applications. <i>Advanced Functional Materials</i> , 2013, 23, 660-672.	7.8	560
56	Development of a micro-indentation device for measuring the mechanical properties of soft materials. <i>Theoretical and Applied Mechanics Letters</i> , 2013, 3, 054004.	1.3	4
57	Engineering three-dimensional cell mechanical microenvironment with hydrogels. <i>Biofabrication</i> , 2012, 4, 042001.	3.7	146
58	Single neuron capture and axonal development in three-dimensional microscale hydrogels. <i>Lab on A Chip</i> , 2012, 12, 4724.	3.1	32
59	Cell-encapsulating microfluidic hydrogels with enhanced mechanical stability. <i>Soft Matter</i> , 2012, 8, 10687.	1.2	34
60	Microfluidic hydrogels for tissue engineering. <i>Biofabrication</i> , 2011, 3, 012001.	3.7	164
61	Advances in cell-based biosensors using three-dimensional cell-encapsulating hydrogels. <i>Biotechnology Journal</i> , 2011, 6, 1466-1476.	1.8	14
62	Stress evolution in a phase-separating polymeric gel. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2010, 18, 025002.	0.8	6