Christopher Moraes

List of Publications by Year
in descending order

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67 papers	1,942 citations	257101 24 h-index	264894 42 g-index
68 all docs	68 docs citations	68 times ranked	3039 citing authors

#	Article	IF	Citations
1	Organs-on-a-Chip: A Focus on Compartmentalized Microdevices. Annals of Biomedical Engineering, 2012, 40, 1211-1227.	1.3	174
2	Microfabricated arrays for high-throughput screening of cellular response to cyclic substrate deformation. Lab on A Chip, 2010, 10, 227-234.	3.1	129
3	On being the right size: scaling effects in designing a human-on-a-chip. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overlock	0.6	119
4	Nanodarts, nanoblades, and nanospikes: Mechano-bactericidal nanostructures and where to find them. Advances in Colloid and Interface Science, 2018, 252, 55-68.	7.0	109
5	A microfabricated platform for high-throughput unconfined compression of micropatterned biomaterial arrays. Biomaterials, 2010, 31, 577-584.	5.7	101
6	Media additives to promote spheroid circularity and compactness in hanging drop platform. Biomaterials Science, 2015, 3, 336-344.	2.6	84
7	Dispersible hydrogel force sensors reveal patterns of solid mechanical stress in multicellular spheroid cultures. Nature Communications, 2019, 10, 144.	5.8	83
8	(Micro)managing the mechanical microenvironment. Integrative Biology (United Kingdom), 2011, 3, 959.	0.6	79
9	Single Cell Deposition and Patterning with a Robotic System. PLoS ONE, 2010, 5, e13542.	1.1	64
10	Aqueous two-phase printing of cell-containing contractile collagen microgels. Biomaterials, 2013, 34, 9623-9631.	5.7	64
11	Guided fracture of films on soft substrates to create micro/nano-feature arrays with controlled periodicity. Scientific Reports, 2013, 3, 3027.	1.6	57
12	Hydrophilic Mechano-Bactericidal Nanopillars Require External Forces to Rapidly Kill Bacteria. Nano Letters, 2020, 20, 5720-5727.	4.5	57
13	Microdevice array-based identification of distinct mechanobiological response profiles in layer-specific valve interstitial cells. Integrative Biology (United Kingdom), 2013, 5, 673.	0.6	46
14	Dispersible oxygen microsensors map oxygen gradients in three-dimensional cell cultures. Biomaterials Science, 2017, 5, 2106-2113.	2.6	45
15	KIBRA (WWC1) Is a Metastasis Suppressor Gene Affected by Chromosome 5q Loss in Triple-Negative Breast Cancer. Cell Reports, 2018, 22, 3191-3205.	2.9	43
16	Supersoft lithography: candy-based fabrication of soft silicone microstructures. Lab on A Chip, 2015, 15, 3760-3765.	3.1	37
17	Mapping cellular-scale internal mechanics in 3D tissues with thermally responsive hydrogel probes. Nature Communications, 2020, 11, 4757.	5.8	37
18	Functional Redundancy between Î²1 and Î²3 Integrin in Activating the IR/Akt/mTORC1 Signaling Axis to Promote ErbB2-Driven Breast Cancer. Cell Reports, 2019, 29, 589-602.e6.	2.9	35

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19	Fracture-based micro- and nanofabrication for biological applications. Biomaterials Science, 2014, 2, 288.	2.6	31
20	Fractureâ€Based Fabrication of Normally Closed, Adjustable, and Fully Reversible Microscale Fluidic Channels. Small, 2014, 10, 4020-4029.	5.2	30
21	Controlled clustering enhances PDX1 and NKX6.1 expression in pancreatic endoderm cells derived from pluripotent stem cells. Scientific Reports, 2020, 10, 1190.	1.6	29
22	Surface Wettability Is a Key Feature in the Mechano-Bactericidal Activity of Nanopillars. ACS Applied Materials & Interfaces, 2022, 14, 27564-27574.	4.0	27
23	Microscale 3D Collagen Cell Culture Assays in Conventional Flat-Bottom 384-Well Plates. Journal of the Association for Laboratory Automation, 2015, 20, 138-145.	2.8	26
24	Mechanobiological regulation of placental trophoblast fusion and function through extracellular matrix rigidity. Scientific Reports, 2020, 10, 5837.	1.6	26
25	Integrating polyurethane culture substrates into poly(dimethylsiloxane) microdevices. Biomaterials, 2009, 30, 5241-5250.	5.7	25
26	Microfluidic Shear Assay to Distinguish between Bacterial Adhesion and Attachment Strength on Stiffness-Tunable Silicone Substrates. Langmuir, 2019, 35, 8840-8849.	1.6	25
27	Defined topologically-complex protein matrices to manipulate cell shape via three-dimensional fiber-like patterns. Lab on A Chip, 2014, 14, 2191-2201.	3.1	24
28	Micropocket hydrogel devices for all-in-one formation, assembly, and analysis of aggregate-based tissues. Biofabrication, 2019, 11, 045013.	3.7	24
29	Hydrogel Mechanics Influence the Growth and Development of Embedded Brain Organoids. ACS Applied Bio Materials, 2022, 5, 214-224.	2.3	23
30	Surface-templated hydrogel patterns prompt matrix-dependent migration of breast cancer cells towards chemokine-secreting cells. Acta Biomaterialia, 2015, 13, 68-77.	4.1	17
31	Have microfluidics delivered for drug discovery?. Expert Opinion on Drug Discovery, 2016, 11, 745-748.	2.5	17
32	Thermal scribing to prototype plastic microfluidic devices, applied to study the formation of neutrophil extracellular traps. Lab on A Chip, 2017, 17, 2003-2012.	3.1	17
33	Disentangling the fibrous microenvironment: designer culture models for improved drug discovery. Expert Opinion on Drug Discovery, 2021, 16, 159-171.	2.5	17
34	The DNMT1 inhibitorÂGSK-3484862 mediates global demethylation in murine embryonic stem cells. Epigenetics and Chromatin, 2021, 14, 56.	1.8	16
35	Magnetic microboats for floating, stiffness tunable, airâ€“liquid interface epithelial cultures. Lab on A Chip, 2019, 19, 2786-2798.	3.1	15
36	A micromanipulation system for single cell deposition. , 2010, , .		14

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37	Semi-confined compression of microfabricated polymerized biomaterial constructs. Journal of Micromechanics and Microengineering, 2011, 21, 054014.	1.5	14
38	Bioprintable, Stiffness-Tunable Collagen-Alginate Microgels for Increased Throughput 3D Cell Culture Studies. ACS Biomaterials Science and Engineering, 2021, 7, 2814-2822.	2.6	13
39	Developmentally-Inspired Biomimetic Culture Models to Produce Functional Islet-Like Cells From Pluripotent Precursors. Frontiers in Bioengineering and Biotechnology, 2020, 8, 583970.	2.0	12
40	Architectural control of metabolic plasticity in epithelial cancer cells. Communications Biology, 2021, 4, 371.	2.0	12
41	Disease-specific extracellular matrix composition regulates placental trophoblast fusion efficiency. Biomaterials Science, 2021, 9, 7247-7256.	2.6	12
42	Biomimetic Micropatterned Adhesive Surfaces To Mechanobiologically Regulate Placental Trophoblast Fusion. ACS Applied Materials & Interfaces, 2019, 11, 47810-47821.	4.0	11
43	Revisiting tissue tensegrity: Biomaterial-based approaches to measure forces across length scales. APL Bioengineering, 2021, 5, 041501.	3.3	11
44	Dynamic Bioreactors with Integrated Microfabricated Devices for Mechanobiological Screening. Tissue Engineering - Part C: Methods, 2019, 25, 581-592.	1.1	10
45	An Undergraduate Lab (on-a-Chip): Probing Single Cell Mechanics on a Microfluidic Platform. Cellular and Molecular Bioengineering, 2010, 3, 319-330.	1.0	9
46	Robust and Precise Wounding and Analysis of Engineered Contractile Tissues. Tissue Engineering - Part C: Methods, 2019, 25, 677-686.	1.1	9
47	Microfluidics in microbiology: putting a magnifying glass on microbes. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overlo	0.6	8
48	Building an experimental model of the human body with non-physiological parameters. Technology, 2017, 05, 42-59.	1.4	8
49	Oxygenation as a driving factor in epithelial differentiation at the airâ€“liquid interface. Integrative Biology (United Kingdom), 2021, 13, 61-72.	0.6	8
50	Oneâ€dimensional patterning of cells in silicone wells via compressionâ€induced fracture. Journal of Biomedical Materials Research - Part A, 2014, 102, 1361-1369.	2.1	6
51	Morphodynamic Tissues via Integrated Programmable Shape Memory Actuators. Advanced Functional Materials, 2019, 29, 1903327.	7.8	6
52	The Discovery Channel: microfluidics and microengineered systems in drug screening. Integrative Biology (United Kingdom), 2015, 7, 285-288.	0.6	5
53	Microfabricated Platforms for Mechanically Dynamic Cell Culture. Journal of Visualized Experiments, 2010, , .	0.2	3
54	Thinking big by thinking small: advances in mechanobiology across the length scales. Integrative Biology (United Kingdom), 2016, 8, 262-266.	0.6	3

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55	The case for cancer-associated fibroblasts: essential elements in cancer drug discovery?. Future Drug Discovery, 0, , .	0.8	3
56	Microfluidic Study of Bacterial Attachment on and Detachment from Zinc Oxide Nanopillars. ACS Biomaterials Science and Engineering, 0, , .	2.6	3
57	Engineered models for placental toxicology: Emerging approaches based on tissue decellularization. Reproductive Toxicology, 2022, 112, 148-159.	1.3	3
58	Between a rock and a soft place: recent progress in understanding matrix mechanics. Integrative Biology (United Kingdom), 2015, 7, 736-739.	0.6	1
59	Micro, soft, windows: integrating super-resolution viewing capabilities into soft lithographic devices. Integrative Biology (United Kingdom), 2015, 7, 10-13.	0.6	1
60	Gotta catch â€˜em all: the microscale quest to understand cancer biology. Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.6	1
61	The W-model: a pre-college design pedagogy for solving wicked problems. International Journal of Technology and Design Education, 2021, 31, 139-164.	1.7	1
62	Single Cell Deposition. Methods in Cell Biology, 2012, 112, 403-420.	0.5	1
63	Accessible, large-area, uniform dose photolithography using a moving light source. Journal of Micromechanics and Microengineering, 2022, 32, 027001.	1.5	1
64	Making it stick: the role of structural design in implantable technologies. Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.6	0
65	Live long and prosper: the enterprise of understanding diseased epithelium. Integrative Biology (United Kingdom), 2015, 7, 494-497.	0.6	0
66	Stem cells: to be born great, achieve greatness, or have greatness thrust upon them?. Integrative Biology (United Kingdom), 2016, 8, 737-740.	0.6	0
67	Accessible dynamic micropatterns in monolayer cultures via modified desktop xurography. Biofabrication, 2021, 13, 025003.	3.7	0