Gabor Forgacs

List of Publications by Year
in descending order

67	9,695	109321 35	214800 47
papers	citations	h-index	g-index

70	70	70	8900
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Scaffold-free vascular tissue engineering using bioprinting. Biomaterials, 2009, 30, 5910-5917.	11.4	1,193
2	Organ printing: computer-aided jet-based 3D tissue engineering. Trends in Biotechnology, 2003, 21, 157-161.	9.3	1,127
3	Organ printing: Tissue spheroids as building blocks. Biomaterials, 2009, 30, 2164-2174.	11.4	1,106
4	Periostin regulates collagen fibrillogenesis and the biomechanical properties of connective tissues. Journal of Cellular Biochemistry, 2007, 101, 695-711.	2.6	530
5	Biofabrication: reappraising the definition of an evolving field. Biofabrication, 2016, 8, 013001.	7.1	523
6	Tissue engineering by self-assembly and bio-printing of living cells. Biofabrication, 2010, 2, 022001.	7.1	492
7	Biofabrication: A Guide to Technology and Terminology. Trends in Biotechnology, 2018, 36, 384-402.	9.3	465
8	Viscoelastic Properties of Living Embryonic Tissues: a Quantitative Study. Biophysical Journal, 1998, 74, 2227-2234.	0.5	432
9	Engineering biological structures of prescribed shape using self-assembling multicellular systems. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 2864-2869.	7.1	344
10	Tissue Engineering by Self-Assembly of Cells Printed into Topologically Defined Structures. Tissue Engineering - Part A, 2008, 14, 413-421.	3.1	337
11	Liquid properties of embryonic tissues: Measurement of interfacial tensions. Physical Review Letters, 1994, 72, 2298-2301.	7.8	256
12	Tissue Engineering by Self-Assembly of Cells Printed into Topologically Defined Structures. Tissue Engineering, 0, , 110306233438005.	4.6	200
13	Multiple Membrane Tethers Probed by Atomic Force Microscopy. Biophysical Journal, 2005, 89, 4320-4329.	0.5	182
14	Biofabrication and testing of a fully cellular nerve graft. Biofabrication, 2013, 5, 045007.	7.1	174
15	The effect of cellular cholesterol on membrane-cytoskeleton adhesion. Journal of Cell Science, 2007, 120, 2223-2231.	2.0	170
16	Before programs: The physical origination of multicellular forms. International Journal of Developmental Biology, 2006, 50, 289-299.	0.6	149
17	Assembly of Collagen Matrices as a Phase Transition Revealed by Structural and Rheologic Studies. Biophysical Journal, 2003, 84, 1272-1280.	0.5	129
18	Bioprinting living structures. Journal of Materials Chemistry, 2007, 17, 2054.	6.7	114

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19	Magnetic tweezers for intracellular applications. Review of Scientific Instruments, 2003, 74, 4158-4163.	1.3	112
20	The Interplay of Cell-Cell and Cell-Matrix Interactions in the Invasive Properties of Brain Tumors. Biophysical Journal, 2006, 91, 2708-2716.	0.5	110
21	Fusion of uniluminal vascular spheroids: A model for assembly of blood vessels. Developmental Dynamics, 2010, 239, 398-406.	1.8	108
22	Developmental biology and tissue engineering. Birth Defects Research Part C: Embryo Today Reviews, 2007, 81, 320-328.	3.6	94
23	Mechanotransduction through the cytoskeleton. American Journal of Physiology - Cell Physiology, 2002, 282, C479-C486.	4.6	90
24	Modeling the interplay of generic and genetic mechanisms in cleavage, blastulation, and gastrulation. Developmental Dynamics, 2000, 219, 182-191.	1.8	89
25	Three-dimensional tissue constructs built by bioprinting. Biorheology, 2006, 43, 509-13.	0.4	80
26	Role of the cytoskeleton in signaling networks. Journal of Cell Science, 2004, 117, 2769-2775.	2.0	75
27	Relating cell and tissue mechanics: Implications and applications. Developmental Dynamics, 2008, 237, 2438-2449.	1.8	72
28	Role of Physical Mechanisms in Biological Self-Organization. Physical Review Letters, 2005, 95, 178104.	7.8	69
29	Post-deposition bioink self-assembly: a quantitative study. Biofabrication, 2015, 7, 045005.	7.1	53
30	Predictive modeling of post bioprinting structure formation. Soft Matter, 2014, 10, 1790-1800.	2.7	52
31	Kinetic Monte Carlo and cellular particle dynamics simulations of multicellular systems. Physical Review E, 2012, 85, 031907.	2.1	51
32	Microenvironmental Regulation of Ovarian Cancer Metastasis. Cancer Treatment and Research, 2009, 149, 319-334.	0.5	46
33	Eukaryotic membrane tethers revisited using magnetic tweezers. Physical Biology, 2007, 4, 67-78.	1.8	44
34	Colloquium: Modeling the dynamics of multicellular systems: Application to tissue engineering. Reviews of Modern Physics, 2012, 84, 1791-1805.	45.6	39
35	Limb bud and flank mesoderm have distinct â€œphysical phenotypesâ€•that may contribute to limb budding. Developmental Biology, 2008, 321, 319-330.	2.0	38
36	Relating Biophysical Properties Across Scales. Current Topics in Developmental Biology, 2008, 81, 461-483.	2.2	38

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37	COMPUTATIONAL MODELING OF TISSUE SELF-ASSEMBLY. Modern Physics Letters B, 2006, 20, 1217-1231.	1.9	37
38	Wetting, percolation and morphogenesis in a model tissue system. Journal of Theoretical Biology, 1989, 140, 417-430.	1.7	32
39	Physics of bioprinting. Applied Physics Reviews, 2019, 6, .	11.3	32
40	Reversible Disassembly of the Actin Cytoskeleton Improves the Survival Rate and Developmental Competence of Cryopreserved Mouse Oocytes. PLoS ONE, 2008, 3, e2787.	2.5	29
41	Phase transformations in a model mesenchymal tissue. Physical Biology, 2004, 1, 100-109.	1.8	24
42	How cholesterol regulates endothelial biomechanics. Frontiers in Physiology, 2012, 3, 426.	2.8	22
43	Phase Transitions, Interfaces, and Morphogenesis in a Network of Protein Fibers. International Review of Cytology, 1994, 150, 139-148.	6.2	21
44	Computational modeling of epithelialâ€“mesenchymal transformations. BioSystems, 2010, 100, 23-30.	2.0	21
45	Perfusable vascular networks. Nature Materials, 2012, 11, 746-747.	27.5	19
46	Cell Spreading Analysis with Directed Edge Profile-Guided Level Set Active Contours. Lecture Notes in Computer Science, 2008, 11, 376-383.	1.3	15
47	Advanced Cell and Tissue Biomanufacturing. ACS Biomaterials Science and Engineering, 2018, 4, 2292-2307.	5.2	14
48	Self-assembly of tissue spheroids on polymeric membranes. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 2090-2103.	2.7	12
49	Computational Modeling of Tissue Self-Assembly. , 2012, , 251-272.		6
50	Biological Relevance of Tissue Liquidity and Viscoelasticity. , 2004, , 269-277.		5
51	Cellular aggregates under pressure. Physics Magazine, 0, 3, .	0.1	4
52	Bioprinting of Nerve. , 2015, , 379-394.		3
53	Modeling the interplay of generic and genetic mechanisms in cleavage, blastulation, and gastrulation. , 2000, 219, 182.		3
54	Cleavage and blastula formation. , 2005, , 24-50.		2

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55	The cell: fundamental unit of developmental systems. , 2005, , 6-23.		0
56	Fertilization: generating one living dynamical system from two. , 2005, , 223-247.		0
57	Cell states: stability, oscillation, differentiation. , 2005, , 51-76.		0
58	Pattern formation: segmentation, axes, and asymmetry. , 2005, , 155-187.		0
59	Evolution of developmental mechanisms. , 2005, , 248-272.		0
60	Introduction: Biology and physics. , 2005, , 1-5.		0
61	Cell adhesion, compartmentalization, and lumen formation. , 2005, , 77-98.		0
62	Epithelial morphogenesis: gastrulation and neurulation. , 2005, , 99-130.		0
63	Mesenchymal morphogenesis. , 2005, , 131-154.		0
64	Organogenesis. , 2005, , 188-222.		0
65	Fusion of uniluminal vascular spheroids: A model for assembly of blood vessels. Developmental Dynamics, 2010, 239, spcone-spcone.	1.8	0
66	Fusion of uniluminal vascular spheroids: A model for assembly of blood vessels. Developmental Dynamics, 2010, 239, spcone-spcone.	1.8	0
67	Engineering Blood Vessels from Lumenized Vascular Tissue Spheroids. FASEB Journal, 2006, 20, A436.	0.5	0