Pinar Zorlutuna

List of Publications by Year
in descending order

67 papers	5,096 citations	172457 29 h-index	110387 64 g-index
76 all docs	76 docs citations	76 times ranked	7810 citing authors

#	Article	IF	Citations
1	Carbon-Nanotube-Embedded Hydrogel Sheets for Engineering Cardiac Constructs and Bioactuators. ACS Nano, 2013, 7, 2369-2380.	14.6	789
2	Microfabrication of complex porous tissue engineering scaffolds using 3D projection stereolithography. Biomaterials, 2012, 33, 3824-3834.	11.4	560
3	Direct-write bioprinting of cell-laden methacrylated gelatin hydrogels. Biofabrication, 2014, 6, 024105.	7.1	528
4	Three-dimensional photopatterning of hydrogels using stereolithography for long-term cell encapsulation. Lab on A Chip, 2010, 10, 2062.	6.0	450
5	Microfabricated Biomaterials for Engineering 3D Tissues. Advanced Materials, 2012, 24, 1782-1804.	21.0	351
6	Directed endothelial cell morphogenesis in micropatterned gelatin methacrylate hydrogels. Biomaterials, 2012, 33, 9009-9018.	11.4	221
7	Patterning the differentiation of C2C12 skeletal myoblasts. Integrative Biology (United Kingdom), 2011, 3, 897.	1.3	164
8	YAP and TAZ limit cytoskeletal and focal adhesion maturation to enable persistent cell motility. Journal of Cell Biology, 2019, 218, 1369-1389.	5.2	115
9	Stereolithographyâ€Based Hydrogel Microenvironments to Examine Cellular Interactions. Advanced Functional Materials, 2011, 21, 3642-3651.	14.9	112
10	Breast cancer models: Engineering the tumor microenvironment. Acta Biomaterialia, 2020, 106, 1-21.	8.3	112
11	Fiber-reinforced hydrogel scaffolds for heart valve tissue engineering. Journal of Biomaterials Applications, 2014, 29, 399-410.	2.4	102
12	Engineered cell-laden human protein-based elastomer. Biomaterials, 2013, 34, 5496-5505.	11.4	99
13	Nanobiomaterials: a review of the existing science and technology, and new approaches. Journal of Biomaterials Science, Polymer Edition, 2006, 17, 1241-1268.	3.5	92
14	Enabling personalized implant and controllable biosystem development through 3D printing. Biotechnology Advances, 2018, 36, 521-533.	11.7	90
15	The Expanding World of Tissue Engineering: The Building Blocks and New Applications of Tissue Engineered Constructs. IEEE Reviews in Biomedical Engineering, 2013, 6, 47-62.	18.0	77
16	Stromal cell-laden 3D hydrogel microwell arrays as tumor microenvironment model for studying stiffness dependent stromal cell-cancer interactions. Biomaterials, 2018, 170, 37-48.	11.4	77
17	Human iPSC-derived myocardium-on-chip with capillary-like flow for personalized medicine. Biomicrofluidics, 2017, 11, 024105.	2.4	76
18	Electrically conductive 3D printed Ti3C2T MXene-PEG composite constructs for cardiac tissue engineering. Acta Biomaterialia, 2022, 139, 179-189.	8.3	70

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19	Nanopatterning of Collagen Scaffolds Improve the Mechanical Properties of Tissue Engineered Vascular Grafts. Biomacromolecules, 2009, 10, 814-821.	5.4	63
20	â€œLivingâ€•Microvascular Stamp for Patterning of Functional Neovessels; Orchestrated Control of Matrix Property and Geometry. Advanced Materials, 2012, 24, 58-63.	21.0	62
21	3D hydrogel-based microwell arrays as a tumor microenvironment model to study breast cancer growth. Biomedical Materials (Bristol), 2017, 12, 025009.	3.3	62
22	Influence of nanopatterns on endothelial cell adhesion: Enhanced cell retention under shear stress. Acta Biomaterialia, 2009, 5, 2451-2459.	8.3	58
23	Directed Differentiation of Sizeâ€Controlled Embryoid Bodies Towards Endothelial and Cardiac Lineages in RGDâ€Modified Poly(Ethylene Glycol) Hydrogels. Advanced Healthcare Materials, 2013, 2, 195-205.	7.6	58
24	Tunable Human Myocardium Derived Decellularized Extracellular Matrix for 3D Bioprinting and Cardiac Tissue Engineering. Gels, 2021, 7, 70.	4.5	51
25	Effect of cellular and ECM aging on human iPSC-derived cardiomyocyte performance, maturity and senescence. Biomaterials, 2021, 268, 120554.	11.4	44
26	Development and characterization of muscle-based actuators for self-stabilizing swimming biorobots. Lab on A Chip, 2016, 16, 3473-3484.	6.0	39
27	In vitro aged, hiPSC-origin engineered heart tissue models with age-dependent functional deterioration to study myocardial infarction. Acta Biomaterialia, 2019, 94, 372-391.	8.3	36
28	Influence of Oxygen Plasma Modification on Surface Free Energy of PMMA Films and Cell Attachment. Macromolecular Symposia, 2008, 269, 128-137.	0.7	34
29	Electro-plasmonic nanoantenna: A nonfluorescent optical probe for ultrasensitive label-free detection of electrophysiological signals. Science Advances, 2019, 5, eaav9786.	10.3	33
30	Influence of keratocytes and retinal pigment epithelial cells on the mechanical properties of polyester-based tissue engineering micropatterned films. Biomaterials, 2007, 28, 3489-3496.	11.4	27
31	Engineered myocardium model to study the roles of HIF-1Î± and HIF1A-AS1 in paracrine-only signaling under pathological level oxidative stress. Acta Biomaterialia, 2017, 58, 323-336.	8.3	27
32	Dual Crosslinked Gelatin Methacryloyl Hydrogels for Photolithography and 3D Printing. Gels, 2019, 5, 34.	4.5	27
33	Effect of Substrate Stiffness on Mechanical Coupling and Force Propagation at the Infarct Boundary. Biophysical Journal, 2018, 115, 1966-1980.	0.5	21
34	HIV-Nef Protein Transfer to Endothelial Cells Requires Rac1 Activation and Leads to Endothelial Dysfunction Implications for Statin Treatment in HIV Patients. Circulation Research, 2019, 125, 805-820.	4.5	20
35	Hollow microcarriers for largeâ€scale expansion of anchorageâ€dependent cells in a stirred bioreactor. Biotechnology and Bioengineering, 2018, 115, 1717-1728.	3.3	19
36	Distinct glycosylation in membrane proteins within neonatal versus adult myocardial tissue. Matrix Biology, 2020, 85-86, 173-188.	3.6	19

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37	Aged Breast Extracellular Matrix Drives Mammary Epithelial Cells to an Invasive and Cancerâ€Like Phenotype. Advanced Science, 2021, 8, e2100128.	11.2	19
38	Nanopatterned collagen tubes for vascular tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 373-377.	2.7	18
39	Both sides nanopatterned tubular collagen scaffolds as tissue-engineered vascular grafts. Journal of Tissue Engineering and Regenerative Medicine, 2010, 4, 628-637.	2.7	18
40	The Extracellular Matrix and Vesicles Modulate the Breast Tumor Microenvironment. Bioengineering, 2020, 7, 124.	3.5	17
41	CRISPR/Cas9 Edited Induced Pluripotent Stem Cell-Based Vascular Tissues to Model Aging and Disease-Dependent Impairment. Tissue Engineering - Part A, 2019, 25, 759-772.	3.1	16
42	Dynamic three-dimensional micropatterned cell co-cultures within photocurable and chemically degradable hydrogels. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 690-699.	2.7	15
43	Identification of astroglia-like cardiac nexus glia that are critical regulators of cardiac development and function. PLoS Biology, 2021, 19, e3001444.	5.6	15
44	Human Heart Anoxia and Reperfusion Tissue (HEART) Model for the Rapid Study of Exosome Bound miRNA Expression As Biomarkers for Myocardial Infarction. Small, 2022, 18, .	10.0	13
45	Modulation of the contractility of micropatterned myocardial cells with nanoscale forces using atomic force microscopy. Nanobiomedicine, 2016, 3, 184954351667534.	5.7	12
46	Transcriptome profiling of 3D co-cultured cardiomyocytes and endothelial cells under oxidative stress using a photocrosslinkable hydrogel system. Acta Biomaterialia, 2017, 58, 337-348.	8.3	11
47	A multiplexed ion-exchange membrane-based miRNA (MIXÂ·miR) detection platform for rapid diagnosis of myocardial infarction. Lab on A Chip, 2021, 21, 3876-3887.	6.0	11
48	3-D biofabrication using stereolithography for biology and medicine. , 2012, 2012, 6805-8.		10
49	Immune System Effects on Breast Cancer. Cellular and Molecular Bioengineering, 2021, 14, 279-292.	2.1	9
50	Adipose stem cell secretome markedly improves rodent heart and human induced pluripotent stem cell-derived cardiomyocyte recovery from cardioplegic transport solution exposure. Stem Cells, 2021, 39, 170-182.	3.2	9
51	Editorial: Adverse Reactions to Biomaterials: State of the Art in Biomaterial Risk Assessment, Immunomodulation and in vitro Models for Biomaterial Testing. Frontiers in Bioengineering and Biotechnology, 2019, 7, 15.	4.1	8
52	A novel construct as a cell carrier for tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 399-410.	3.5	7
53	Muscleâ€Cellâ€Based â€œLiving Diodesâ€• Advanced Biology, 2017, 1, e1600035.	3.0	7
54	Cardiac Cell Patterning on Customized Microelectrode Arrays for Electrophysiological Recordings. Micromachines, 2021, 12, 1351.	2.9	6

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55	Biomaterials and tissue engineering research in Turkey: The METU Biomat Center experience. Biotechnology Journal, 2009, 4, 965-980.	3.5	5
56	Interdependence theory of tissue failure: bulk and boundary effects. Royal Society Open Science, 2018, 5, 171395.	2.4	5
57	Constant-potential environment for activating and synchronizing cardiomyocyte colonies with on-chip ion-depleting perm-selective membranes. Lab on A Chip, 2020, 20, 4273-4284.	6.0	5
58	Nanostethoscopy: Atomic Force Microscopy Probe Contact Force versus Measured Amplitude of Cardiomyocytic Contractions. Journal of Bionanoscience, 2017, 11, 319-322.	0.4	5
59	Cardiac Muscle Cellâ€Based Coupled Oscillator Network for Collective Computing. Advanced Intelligent Systems, 2021, 3, 2000253.	6.1	4
60	Tissue Failure Propagation as Mediated by Circulatory Flow. Biophysical Journal, 2020, 119, 2573-2583.	0.5	3
61	Microfabrication of Patterned Co-cultures for Controllable Cellâ€“Cell Interfaces. , 2016, , 47-67.		2
62	Cardiac Muscle-cell Based Actuator and Self-stabilizing Biorobot - PART 1. Journal of Visualized Experiments, 2017, , .	0.3	2
63	Cardiac Muscle Cell-based Actuator and Self-stabilizing Biorobot - Part 2. Journal of Visualized Experiments, 2017, , .	0.3	2
64	Adipose stem cell secretome markedly improves rodent heart and human induced pluripotent stem cell-derived cardiomyocyte recovery from cardioplegic transport solution exposure. Stem Cells, 2021, 39, 170-182.	3.2	1
65	Determining Stem Cell Fate with Hydrogels. , 2016, , 53-86.		0
66	Living Diodes: Muscleâ€Cellâ€Based â€œLiving Diodesâ€•(Adv. Biosys. 1â€2/2017). Advanced Biology, 2017, 1, .	3.0	0
67	Cardiac Muscle Cellâ€Based Coupled Oscillator Network for Collective Computing. Advanced Intelligent Systems, 2021, 3, 2170043.	6.1	0