

Roman K Truckenmüller

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

2,217
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304743

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times ranked

3163
citing authors

#	ARTICLE	IF	CITATIONS
1	The Galapagos Chip Platform for High-Throughput Screening of Cell Adhesive Chemical Micropatterns. <i>Small</i> , 2022, 18, e2105704.	10.0	4
2	Challenges to, and prospects for, reverse engineering the gastrointestinal tract using organoids. <i>Trends in Biotechnology</i> , 2022, 40, 932-944.	9.3	12
3	Polystyrene Pocket Lithography: Sculpting Plastic with Light. <i>Advanced Materials</i> , 2022, 34, e2200687.	21.0	3
4	Reversing Epithelial Polarity in Pluripotent Stem Cell-Derived Intestinal Organoids. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 879024.	4.1	16
5	3D Lung-on-Chip Model Based on Biomimetically Microcurved Culture Membranes. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 2684-2699.	5.2	27
6	Assessment of Cell-Material Interactions in Three Dimensions through Dispersed Coaggregation of Microsized Biomaterials into Tissue Spheroids. <i>Small</i> , 2022, 18, .	10.0	7
7	3D alveolar in vitro model based on epithelialized biomimetically curved culture membranes. <i>Biomaterials</i> , 2021, 266, 120436.	11.4	29
8	Measurement of Biomimetic Deposition of Calcium Phosphate in Real Time Using Complex Capacitance. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2000672.	1.8	2
9	Development of an In Vitro Airway Epithelial-Endothelial Cell Culture Model on a Flexible Porous Poly(Trimethylene Carbonate) Membrane Based on Calu-3 Airway Epithelial Cells and Lung Microvascular Endothelial Cells. <i>Membranes</i> , 2021, 11, 197.	3.0	13
10	Chips for Biomaterials and Biomaterials for Chips: Recent Advances at the Interface between Microfabrication and Biomaterials Research. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100371.	7.6	11
11	Ten steps to investigate a cellular system with mathematical modeling. <i>PLoS Computational Biology</i> , 2021, 17, e1008921.	3.2	5
12	Biodegradable Elastic Sponge from Nanofibrous Biphasic Calcium Phosphate Ceramic as an Advanced Material for Regenerative Medicine. <i>Advanced Functional Materials</i> , 2021, 31, 2102911.	14.9	15
13	Mechanical Properties of Bioengineered Corneal Stroma. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100972.	7.6	21
14	The Influence of OAT1 Density and Functionality on Indoxyl Sulfate Transport in the Human Proximal Tubule: An Integrated Computational and In Vitro Study. <i>Toxins</i> , 2021, 13, 674.	3.4	1
15	Modeling indoxyl sulfate transport in a bioartificial kidney: Two-step binding kinetics or lumped parameters model for uremic toxin clearance?. <i>Computers in Biology and Medicine</i> , 2021, 138, 104912.	7.0	1
16	Nanoscale Topographies for Corneal Endothelial Regeneration. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 827.	2.5	7
17	Thin fluorinated polymer film microcavity arrays for 3D cell culture and label-free automated feature extraction. <i>Biomaterials Science</i> , 2021, 9, 7838-7850.	5.4	2
18	Mechanistic Computational Models of Epithelial Cell Transporters-the Adorned Heroes of Pharmacokinetics. <i>Frontiers in Pharmacology</i> , 2021, 12, 780620.	3.5	4

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19	Development of Porous and Flexible PTMC Membranes for In Vitro Organ Models Fabricated by Evaporation-Induced Phase Separation. <i>Membranes</i> , 2020, 10, 330.	3.0	12
20	A One-Step Biofunctionalization Strategy of Electrospun Scaffolds Enables Spatially Selective Presentation of Biological Cues. <i>Advanced Materials Technologies</i> , 2020, 5, 2000269.	5.8	3
21	Intestinal Organoid Culture in Polymer Film-Based Microwell Arrays. <i>Advanced Biology</i> , 2020, 4, e2000126.	3.0	22
22	A New Microengineered Platform for 4D Tracking of Single Cells in a Stem-Cell-Based In Vitro Morphogenesis Model. <i>Advanced Materials</i> , 2020, 32, e1907966.	21.0	10
23	Single-Cell Tracking: A New Microengineered Platform for 4D Tracking of Single Cells in a Stem-Cell-Based In Vitro Morphogenesis Model (<i>Adv. Mater.</i> 24/2020). <i>Advanced Materials</i> , 2020, 32, 2070182.	21.0	0
24	In vitro modelling of alveolar repair at the air-liquid interface using alveolar epithelial cells derived from human induced pluripotent stem cells. <i>Scientific Reports</i> , 2020, 10, 5499.	3.3	35
25	Biomaterials and Microfluidics for Drug Discovery and Development. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1230, 121-135.	1.6	8
26	Colorectal tumor-on-a-chip system: A 3D tool for precision onco-nanomedicine. <i>Science Advances</i> , 2019, 5, eaaw1317.	10.3	143
27	From fiber curls to mesh waves: a platform for the fabrication of hierarchically structured nanofibers mimicking natural tissue formation. <i>Nanoscale</i> , 2019, 11, 14312-14321.	5.6	10
28	A Microcavity Array-Based 3D Model System of the Hematopoietic Stem Cell Niche. <i>Methods in Molecular Biology</i> , 2019, 2017, 85-95.	0.9	6
29	Overlooked? Underestimated? Effects of Substrate Curvature on Cell Behavior. <i>Trends in Biotechnology</i> , 2019, 37, 838-854.	9.3	107
30	Grow with the Flow: When Morphogenesis Meets Microfluidics. <i>Advanced Materials</i> , 2019, 31, e1805764.	21.0	42
31	Blastocyst-like structures generated solely from stem cells. <i>Nature</i> , 2018, 557, 106-111.	27.8	366
32	3D screening device for the evaluation of cell response to different electrospun microtopographies. <i>Acta Biomaterialia</i> , 2017, 55, 310-322.	8.3	16
33	Micro-fabricated scaffolds lead to efficient remission of diabetes in mice. <i>Biomaterials</i> , 2017, 135, 10-22.	11.4	33
34	TopoWellPlate: A Well-Plate-Based Screening Platform to Study Cell-Surface Topography Interactions. <i>Advanced Biology</i> , 2017, 1, e1700002.	3.0	16
35	Linking the Transcriptional Landscape of Bone Induction to Biomaterial Design Parameters. <i>Advanced Materials</i> , 2017, 29, 1603259.	21.0	34
36	High-definition micropatterning method for hard, stiff and brittle polymers. <i>Materials Science and Engineering C</i> , 2017, 71, 558-564.	7.3	26

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37	Controlling Growth and Osteogenic Differentiation of Osteoblasts on Microgrooved Polystyrene Surfaces. PLoS ONE, 2016, 11, e0161466.	2.5	33
38	Directed Assembly and Development of Material-Free Tissues with Complex Architectures. Advanced Materials, 2016, 28, 4032-4039.	21.0	54
39	Regeneration of the lung: Lung stem cells and the development of lung mimicking devices. Respiratory Research, 2016, 17, 44.	3.6	86
40	Independent effects of the chemical and microstructural surface properties of polymer/ceramic composites on proliferation and osteogenic differentiation of human MSCs. Acta Biomaterialia, 2016, 42, 364-377.	8.3	32
41	Development of Highly Functional Biomaterials by Decoupling and Recombining Material Properties. Advanced Materials, 2016, 28, 1803-1808.	21.0	17
42	Analysis of high-throughput screening reveals the effect of surface topographies on cellular morphology. Acta Biomaterialia, 2015, 15, 29-38.	8.3	61
43	Biofunctional Micropatterning of Thermoformed 3D Substrates. Advanced Functional Materials, 2014, 24, 442-450.	14.9	19
44	Engineered Micro-Objects as Scaffolding Elements in Cellular Building Blocks for Bottom-Up Tissue Engineering Approaches. Advanced Materials, 2014, 26, 2592-2599.	21.0	78
45	Effect of tissue scaffold topography on protein structure monitored by fluorescence spectroscopy. Journal of Biotechnology, 2014, 189, 166-174.	3.8	5
46	A Fast Process for Imprinting Micro and Nano Patterns on Electrospun Fiber Meshes at Physiological Temperatures. Small, 2013, 9, 3405-3409.	10.0	42
47	Electrospinning: A Fast Process for Imprinting Micro and Nano Patterns on Electrospun Fiber Meshes at Physiological Temperatures (Small 20/2013). Small, 2013, 9, 3544-3544.	10.0	1
48	Microwell Scaffolds for the Extrahepatic Transplantation of Islets of Langerhans. PLoS ONE, 2013, 8, e64772.	2.5	56
49	3D Nanofabrication: 3D Nanofabrication of Fluidic Components by Corner Lithography (Small 24/2012). Small, 2012, 8, 3702-3702.	10.0	2
50	Fabrication of cell container arrays with overlaid surface topographies. Biomedical Microdevices, 2012, 14, 95-107.	2.8	40
51	Thermoforming of Film-Based Biomedical Microdevices. Advanced Materials, 2011, 23, 1311-1329.	21.0	98
52	An algorithm-based topographical biomaterials library to instruct cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16565-16570.	7.1	355
53	Flexible fluidic microchips based on thermoformed and locally modified thin polymer films. Lab on A Chip, 2008, 8, 1570.	6.0	69
54	3D tissue culture substrates produced by microthermoforming of pre-processed polymer films. Biomedical Microdevices, 2006, 8, 191-199.	2.8	100