

# Olivier Frey

## List of Publications by Citations

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49  
papers

1,696  
citations

22  
h-index

41  
g-index

52  
ext. papers

2,052  
ext. citations

5.8  
avg, IF

4.62  
L-index

#	Paper	IF	Citations
49	Reconfigurable microfluidic hanging drop network for multi-tissue interaction and analysis. <i>Nature Communications</i> , <b>2014</b> , 5, 4250	17.4	240
48	Biology-inspired microphysiological system approaches to solve the prediction dilemma of substance testing. <i>ALTEX: Alternatives To Animal Experimentation</i> , <b>2016</b> , 33, 272-321	4.3	161
47	Electrochemical comparison of IrO <sub>2</sub> prepared by anodic oxidation of pure iridium and IrO <sub>2</sub> prepared by thermal decomposition of H <sub>2</sub> IrCl <sub>6</sub> precursor solution. <i>Journal of Applied Electrochemistry</i> , <b>2009</b> , 39, 1361-1367	2.6	125
46	3D spherical microtissues and microfluidic technology for multi-tissue experiments and analysis. <i>Journal of Biotechnology</i> , <b>2015</b> , 205, 24-35	3.7	96
45	Multi-analyte biosensor interface for real-time monitoring of 3D microtissue spheroids in hanging-drop networks. <i>Microsystems and Nanoengineering</i> , <b>2016</b> , 2, 16022	7.7	88
44	A synthetic multifunctional mammalian pH sensor and CO <sub>2</sub> transgene-control device. <i>Molecular Cell</i> , <b>2014</b> , 55, 397-408	17.6	87
43	Biology-inspired microphysiological systems to advance patient benefit and animal welfare in drug development. <i>ALTEX: Alternatives To Animal Experimentation</i> , <b>2020</b> , 37, 365-394	4.3	66
42	Microfluidic single-cell cultivation chip with controllable immobilization and selective release of yeast cells. <i>Lab on A Chip</i> , <b>2012</b> , 12, 906-15	7.2	54
41	Electrochemical oxidation of ammonia (NH <sub>4</sub> <sup>+</sup> /NH <sub>3</sub> ) on thermally and electrochemically prepared IrO <sub>2</sub> electrodes. <i>Electrochimica Acta</i> , <b>2011</b> , 56, 1361-1365	6.7	51
40	Autonomous microfluidic multi-channel chip for real-time PCR with integrated liquid handling. <i>Biomedical Microdevices</i> , <b>2007</b> , 9, 711-8	3.7	49
39	96-well format-based microfluidic platform for parallel interconnection of multiple multicellular spheroids. <i>Journal of the Association for Laboratory Automation</i> , <b>2015</b> , 20, 274-82		48
38	Fully integrated CMOS microsystem for electrochemical measurements on 32 IrO <sub>2</sub> working electrodes at 90 frames per second. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 6425-32	7.8	48
37	Enzyme-based choline and L-glutamate biosensor electrodes on silicon microprobe arrays. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 26, 477-84	11.8	44
36	Electrical Impedance Spectroscopy for Microtissue Spheroid Analysis in Hanging-Drop Networks. <i>ACS Sensors</i> , <b>2016</b> , 1, 1028-1035	9.2	43
35	Adding the heart to hanging drop networks for microphysiological multi-tissue experiments. <i>Lab on A Chip</i> , <b>2015</b> , 15, 4138-47	7.2	41
34	Automated, Multiplexed Electrical Impedance Spectroscopy Platform for Continuous Monitoring of Microtissue Spheroids. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 10876-10883	7.8	35
33	Time-lapse electrical impedance spectroscopy for monitoring the cell cycle of single immobilized <i>S. pombe</i> cells. <i>Scientific Reports</i> , <b>2015</b> , 5, 17180	4.9	32

32	Microfluidic Multitissue Platform for Advanced Embryotoxicity Testing In Vitro. <i>Advanced Science</i> , <b>2019</b> , 6, 1900294	13.6	29
31	Real-time monitoring of immobilized single yeast cells through multifrequency electrical impedance spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , <b>2014</b> , 406, 7015-25	4.4	28
30	A novel enzyme entrapment in SU-8 microfabricated films for glucose micro-biosensors. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 26, 1582-7	11.8	24
29	In Vitro Platform for Studying Human Insulin Release Dynamics of Single Pancreatic Islet Microtissues at High Resolution. <i>Advanced Biology</i> , <b>2020</b> , 4, e1900291	3.5	24
28	Versatile, simple-to-use microfluidic cell-culturing chip for long-term, high-resolution, time-lapse imaging. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 4144-51	7.8	23
27	Seamless Combination of Fluorescence-Activated Cell Sorting and Hanging-Drop Networks for Individual Handling and Culturing of Stem Cells and Microtissue Spheroids. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 1222-9	7.8	21
26	A guide to the organ-on-a-chip. <i>Nature Reviews Methods Primers</i> , <b>2022</b> , 2,		21
25	Multiple extra-synaptic spillover mechanisms regulate prolonged activity in cerebellar Golgi cell-granule cell loops. <i>Journal of Physiology</i> , <b>2011</b> , 589, 3837-54	3.9	20
24	Multi-target electrochemical biosensing enabled by integrated CMOS electronics. <i>Journal of Micromechanics and Microengineering</i> , <b>2011</b> , 21, 054010	2	20
23	Scalable Microfluidic Platform for Flexible Configuration of and Experiments with Microtissue Multiorgan Models. <i>SLAS Technology</i> , <b>2019</b> , 24, 79-95	3	20
22	Integrating impedance-based growth-rate monitoring into a microfluidic cell culture platform for live-cell microscopy. <i>Microsystems and Nanoengineering</i> , <b>2018</b> , 4, 8	7.7	20
21	Biosensor microprobes with integrated microfluidic channels for bi-directional neurochemical interaction. <i>Journal of Neural Engineering</i> , <b>2011</b> , 8, 066001	5	18
20	Continuous-flow multi-analyte biosensor cartridge with controllable linear response range. <i>Lab on A Chip</i> , <b>2010</b> , 10, 2226-34	7.2	16
19	Electrochemical behaviour of ammonia (NH <sub>4</sub> <sup>+</sup> /NH <sub>3</sub> ) on electrochemically grown anodic iridium oxide film (AIROF) electrode. <i>Electrochemistry Communications</i> , <b>2009</b> , 11, 1590-1592	5.1	15
18	Simultaneous neurochemical stimulation and recording using an assembly of biosensor silicon microprobes and SU-8 microinjectors. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 154, 96-105	8.5	13
17	Tubing-Free Microfluidic Microtissue Culture System Featuring Gradual, -Like Substance Exposure Profiles. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2019</b> , 7, 72	5.8	10
16	Microfluidic Hydrogel Hanging-Drop Network for Long-Term Culturing of 3D Microtissues and Simultaneous High-Resolution Imaging. <i>Advanced Biology</i> , <b>2018</b> , 2, 1800054	3.5	10
15	The fibrotic response of primary liver spheroids recapitulates in vivo hepatic stellate cell activation. <i>Biomaterials</i> , <b>2020</b> , 261, 120335	15.6	9

14	A Framework for Optimizing High-Content Imaging of 3D Models for Drug Discovery. <i>SLAS Discovery</i> , <b>2020</b> , 25, 709-722	3.4	8
13	The CellClamper: A Convenient Microfluidic Device for Time-Lapse Imaging of Yeast. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1672, 537-555	1.4	7
12	Predicting Metabolism-Related Drug-Drug Interactions Using a Microphysiological Multitissue System. <i>Advanced Biology</i> , <b>2020</b> , 4, e2000079	3.5	7
11	Fabrication and Operation of Microfluidic Hanging-Drop Networks. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1771, 183-202	1.4	6
10	Robust Functionalization of Large Microelectrode Arrays by Using Pulsed Potentiostatic Deposition. <i>Sensors</i> , <b>2016</b> , 17,	3.8	4
9	Microelectrode-array of IrO <sub>2</sub> prepared by thermal treatment of pure Ir. <i>Electrochemistry Communications</i> , <b>2010</b> , 12, 587-591	5.1	4
8	Design and engineering of multiorgan systems <b>2020</b> , 393-427		4
7	Wide-band Electrical Impedance Spectroscopy (EIS) Measures <i>S. pombe</i> Cell Growth in vivo. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1721, 135-153	1.4	2
6	A Tubing-Free, Microfluidic Platform for the Realization of Physiologically Relevant Dosing Curves on Cellular Models. <i>Proceedings (mdpi)</i> , <b>2017</b> , 1, 497	0.3	2
5	Microfluidic Cell Culturing Platform Combining Long-term, High-resolution Imaging with Impedance Spectroscopy. <i>Procedia Engineering</i> , <b>2015</b> , 120, 154-157		1
4	Miniature Fluidic Microtissue Culturing Device for Rapid Biological Detection. <i>Integrated Analytical Systems</i> , <b>2018</b> , 207-225	0.4	1
3	A Microphysiological Cell-Culturing System for Pharmacokinetic Drug Exposure and High-Resolution Imaging of Arrays of 3D Microtissues.. <i>Frontiers in Pharmacology</i> , <b>2021</b> , 12, 785851	5.6	1
2	Microfluidics: Microfluidic Hydrogel Hanging-Drop Network for Long-Term Culturing of 3D Microtissues and Simultaneous High-Resolution Imaging (Adv. Biosys. 7/2018). <i>Advanced Biology</i> , <b>2018</b> , 2, 1870062	3.5	
1	Multisite monitoring of choline using biosensor microprobe arrays in combination with CMOS circuitry. <i>Biomedizinische Technik</i> , <b>2014</b> , 59, 305-14	1.3	