Mathieu Odijk

List of Publications by Year
in descending order

54	1,491	304743 22	330143 37
papers	citations	h-index	g-index

55	55	55	2086
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Measuring direct current trans-epithelial electrical resistance in organ-on-a-chip microsystems. Lab on A Chip, 2015, 15, 745-752.	6.0	155
2	Direct quantification of transendothelial electrical resistance in organs-on-chips. Biosensors and Bioelectronics, 2016, 85, 924-929.	10.1	107
3	Non-invasive sensing of transepithelial barrier function and tissue differentiation in organs-on-chips using impedance spectroscopy. Lab on A Chip, 2019, 19, 452-463.	6.0	106
4	Urea removal strategies for dialysate regeneration in a wearable artificial kidney. Biomaterials, 2020, 234, 119735.	11.4	67
5	Stacked organic solar cells based on pentacene and C60. Solar Energy Materials and Solar Cells, 2007, 91, 399-404.	6.2	66
6	Luminescence thermometry for in situ temperature measurements in microfluidic devices. Lab on A Chip, 2019, 19, 1236-1246.	6.0	64
7	Barriers-on-chips: Measurement of barrier function of tissues in organs-on-chips. Biomicrofluidics, 2018, 12, 042218.	2.4	56
8	A microfluidic chip for electrochemical conversions in drug metabolism studies. Lab on A Chip, 2009, 9, 1687.	6.0	54
9	Spectroelectrochemistry, the future of visualizing electrode processes by hyphenating electrochemistry with spectroscopic techniques. Analyst, The, 2020, 145, 2482-2509.	3.5	54
10	Mass Spectrometric Detection of Short-Lived Drug Metabolites Generated in an Electrochemical Microfluidic Chip. Analytical Chemistry, 2015, 87, 1527-1535.	6.5	53
11	Standardized and modular microfluidic platform for fast Lab on Chip system development. Sensors and Actuators B: Chemical, 2018, 272, 468-478.	7.8	41
12	Modular operation of microfluidic chips for highly parallelized cell culture and liquid dosing via a fluidic circuit board. Microsystems and Nanoengineering, 2020, 6, 107.	7.0	34
13	Microfluidic desalination techniques and their potential applications. Lab on A Chip, 2015, 15, 3428-3438.	6.0	32
14	Microfluidics and catalyst particles. Lab on A Chip, 2019, 19, 3575-3601.	6.0	32
15	Electrochemistry-on-chip for on-line conversions in drug metabolism studies. Biosensors and Bioelectronics, 2010, 26, 1521-1527.	10.1	31
16	Improved Conversion Rates in Drug Screening Applications Using Miniaturized Electrochemical Cells with Frit Channels. Analytical Chemistry, 2012, 84, 9176-9183.	6.5	30
17	From chip-in-a-lab to lab-on-a-chip: a portable Coulter counter using a modular platform. Microsystems and Nanoengineering, 2018, 4, 34.	7.0	30
18	Simulation of Redoxâ€Cycling Phenomena at Interdigitated Array (IDA) Electrodes: Amplification and Selectivity. Electroanalysis, 2008, 20, 463-468.	2.9	29

#	Article	IF	Citations
19	In Situ Surface-Enhanced Raman Spectroelectrochemical Analysis System with a Hemin Modified Nanostructured Gold Surface. Analytical Chemistry, 2015, 87, 2588-2592.	6.5	27
20	A miniaturized pushâ€“pull-perfusion probe for few-second sampling of neurotransmitters in the mouse brain. Lab on A Chip, 2019, 19, 1332-1343.	6.0	27
21	Measuring barrier function in organ-on-chips with cleanroom-free integration of multiplexable electrodes. Lab on A Chip, 2021, 21, 2040-2049.	6.0	25
22	Microfabricated solid-state ion-selective electrode probe for measuring potassium in the living rodent brain: Compatibility with DC-EEG recordings to study spreading depression. Sensors and Actuators B: Chemical, 2015, 207, 945-953.	7.8	23
23	In-situ Raman spectroscopy to elucidate the influence of adsorption in graphene electrochemistry. Scientific Reports, 2017, 7, 45080.	3.3	23
24	High-throughput activity screening and sorting of single catalyst particles with a droplet microreactor using dielectrophoresis. Nature Catalysis, 2021, 4, 1070-1079.	34.4	23
25	Miniaturization of electrochemical cells for mass spectrometry. TrAC - Trends in Analytical Chemistry, 2015, 70, 40-49.	11.4	22
26	Lab-on-a-Chip: Frontier Science in the Classroom. Journal of Chemical Education, 2018, 95, 267-275.	2.3	22
27	A simple method to fabricate electrochemical sensor systems with predictable high-redox cycling amplification. Lab on A Chip, 2012, 12, 1548.	6.0	21
28	Fabrication and Validation of an Organ-on-chip System with Integrated Electrodes to Directly Quantify Transendothelial Electrical Resistance. Journal of Visualized Experiments, 2017, , .	0.3	21
29	Synchrotron SAXS and Impedance Spectroscopy Unveil Nanostructure Variations in Redox-Responsive Porous Membranes from Poly(ferrocenylsilane) Poly(ionic liquid)s. Macromolecules, 2017, 50, 296-302.	4.8	19
30	Wafer-scale fabrication of high-quality tunable gold nanogap arrays for surface-enhanced Raman scattering. Nanoscale, 2019, 11, 12152-12160.	5.6	19
31	Magnetophoretic Sorting of Single Catalyst Particles. Angewandte Chemie - International Edition, 2018, 57, 10589-10594.	13.8	18
32	Detection of Spontaneous FeOOH Formation at the Hematite/Ni(Fe)OOH Interface During Photoelectrochemical Water Splitting by Operando X-ray Absorption Spectroscopy. ACS Catalysis, 2021, 11, 12324-12335.	11.2	18
33	Capacitive deionization on-chip as a method for microfluidic sample preparation. Lab on A Chip, 2015, 15, 1458-1464.	6.0	17
34	Fluidic circuit board with modular sensor and valves enables stand-alone, tubeless microfluidic flow control in organs-on-chips. Lab on A Chip, 2022, 22, 1231-1243.	6.0	17
35	Electrochemical Protein Cleavage in a Microfluidic Cell with Integrated Boron Doped Diamond Electrodes. Analytical Chemistry, 2016, 88, 9190-9198.	6.5	16
36	Oxidation and adduct formation of xenobiotics in a microfluidic electrochemical cell with boron doped diamond electrodes and an integrated passive gradient rotation mixer. Lab on A Chip, 2016, 16, 3990-4001.	6.0	11

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37	Facilitating implementation of organs-on-chips by open platform technology. Biomicrofluidics, 2021, 15, 051301.	2.4	10
38	Differential cyclic voltammetry for selective and amplified detection. Journal of Electroanalytical Chemistry, 2012, 681, 6-10.	3.8	9
39	Modular microreactor with integrated reflection element for online reaction monitoring using infrared spectroscopy. Lab on A Chip, 2020, 20, 4166-4174.	6.0	9
40	Highly parallelized human embryonic stem cell differentiation to cardiac mesoderm in nanoliter chambers on a microfluidic chip. Biomedical Microdevices, 2021, 23, 30.	2.8	7
41	Nanoscale Electrochemical Sensing and Processing in Microreactors. Annual Review of Analytical Chemistry, 2018, 11, 421-440.	5.4	6
42	Single catalyst particle diagnostics in a microreactor for performing multiphase hydrogenation reactions. Faraday Discussions, 2021, 229, 267-280.	3.2	5
43	Organ-on-Chip Technology for Aerobic Intestinal Host â€“ Anaerobic Microbiota Research. Organs-on-a-Chip, 2022, 4, 100013.	3.2	5
44	Systematic characterization of cleanroom-free fabricated macrovalves, demonstrating pumps and mixers for automated fluid handling tuned for organ-on-chip applications. Microsystems and Nanoengineering, 2022, 8, .	7.0	5
45	Effect of pH waves on capacitive charging in microfluidic flow channels. Ionics, 2014, 20, 1315-1322.	2.4	4
46	Microfluidic Electrochemistry Meets Trapped Ion Mobility Spectrometry and High-Resolution Mass Spectrometryâ€”In Situ Generation, Separation, and Detection of Isomeric Conjugates of Paracetamol and Ethoxyquin. Analytical Chemistry, 2021, 93, 12740-12747.	6.5	4
47	Autonomous capillary microfluidic devices with constant flow rate and temperature-controlled valving. Soft Matter, 2021, 17, 7781-7791.	2.7	4
48	Reference-Electrode Free pH Sensing Using Impedance Spectroscopy. Proceedings (mdpi), 2018, 2, 742.	0.2	3
49	Engulfment control of platinum nanoparticles into oxidized silicon substrates for fabrication of dense solid-state nanopore arrays. Nanotechnology, 2019, 30, 065301.	2.6	3
50	Differential cyclic voltammetry - a novel technique for selective and simultaneous detection using redox cyling based sensors. , 2010, , .		2
51	Comparison of three types of redox active polymer for two photon stereolithography. Polymers for Advanced Technologies, 2017, 28, 1194-1197.	3.2	2
52	Electrochemical Protein Cleavage in a Microfluidic Cell for Proteomics Studies. Procedia Technology, 2017, 27, 62-64.	1.1	2
53	Design and characterization of a microreactor for monodisperse catalytic droplet generation at both elevated temperatures and pressures. , 2017, , .		1
54	Development of a neural probe to measure potassium during a cortical spreading depression in-vivo. , 2013, , .		0