Sebastian Josef Maerkl

List of Publications by Year
in descending order

62 papers	6,050 citations	147801 31 h-index	144013 57 g-index
77 all docs	77 docs citations	77 times ranked	7286 citing authors

#	Article	IF	Citations
1	Microfluidic Large-Scale Integration. Science, 2002, 298, 580-584.	12.6	2,155
2	A Systems Approach to Measuring the Binding Energy Landscapes of Transcription Factors. Science, 2007, 315, 233-237.	12.6	555
3	LSPR Chip for Parallel, Rapid, and Sensitive Detection of Cancer Markers in Serum. Nano Letters, 2014, 14, 2636-2641.	9.1	262
4	Discovery of a hepatitis C target and its pharmacological inhibitors by microfluidic affinity analysis. Nature Biotechnology, 2008, 26, 1019-1027.	17.5	215
5	Rapid cell-free forward engineering of novel genetic ring oscillators. ELife, 2015, 4, e09771.	6.0	214
6	Cascaded amplifying circuits enable ultrasensitive cellular sensors for toxic metals. Nature Chemical Biology, 2019, 15, 540-548.	8.0	199
7	An in vitro microfluidic approach to generating protein-interaction networks. Nature Methods, 2009, 6, 71-74.	19.0	138
8	Implementation of cell-free biological networks at steady state. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15985-15990.	7.1	137
9	Integration of plasmonic trapping in a microfluidic environment. Optics Express, 2009, 17, 6018.	3.4	134
10	A software-programmable microfluidic device for automated biology. Lab on A Chip, 2011, 11, 1612.	6.0	134
11	A chemostat array enables the spatio-temporal analysis of the yeast proteome. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15842-15847.	7.1	123
12	Two distinct promoter architectures centered on dynamic nucleosomes control ribosomal protein gene transcription. Genes and Development, 2014, 28, 1695-1709.	5.9	109
13	Topology and Dynamics of the Zebrafish Segmentation Clock Core Circuit. PLoS Biology, 2012, 10, e1001364.	5.6	108
14	A Simple, Robust, and Low-Cost Method To Produce the PURE Cell-Free System. ACS Synthetic Biology, 2019, 8, 455-462.	3.8	100
15	Massively parallel measurements of molecular interaction kinetics on a microfluidic platform. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16540-16545.	7.1	99
16	Bottom-Up Construction of Complex Biomolecular Systems With Cell-Free Synthetic Biology. Frontiers in Bioengineering and Biotechnology, 2020, 8, 213.	4.1	91
17	Does Positive Selection Drive Transcription Factor Binding Site Turnover? A Test with Drosophila Cis-Regulatory Modules. PLoS Genetics, 2011, 7, e1002053.	3.5	78
18	Experimental strategies for studying transcription factor-DNA binding specificities. Briefings in Functional Genomics, 2010, 9, 362-373.	2.7	77

#	Article	IF	Citations
19	A Digitalâ€“Analog Microfluidic Platform for Patient-Centric Multiplexed Biomarker Diagnostics of Ultralow Volume Samples. ACS Nano, 2016, 10, 1699-1710.	14.6	71
20	Microfluidic systems for cancer diagnostics. Current Opinion in Biotechnology, 2020, 65, 37-44.	6.6	71
21	Long-Term Single Cell Analysis of S. pombe on a Microfluidic Microchemostat Array. PLoS ONE, 2014, 9, e93466.	2.5	67
22	Experimental determination of the evolvability of a transcription factor. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18650-18655.	7.1	64
23	Cell-free gene-regulatory network engineering with synthetic transcription factors. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5892-5901.	7.1	59
24	Mapping the fine structure of a eukaryotic promoter input-output function. Nature Genetics, 2013, 45, 1207-1215.	21.4	53
25	A high-throughput nanoimmunoassay chip applied to large-scale vaccine adjuvant screening. Integrative Biology (United Kingdom), 2013, 5, 650-658.	1.3	46
26	A 1024-sample serum analyzer chip for cancer diagnostics. Lab on A Chip, 2014, 14, 2642-2650.	6.0	44
27	A high-throughput microfluidic nanoimmunoassay for detecting antiâ€“SARS-CoV-2 antibodies in serum or ultralow-volume blood samples. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	44
28	How single-cell immunology is benefiting from microfluidic technologies. Microsystems and Nanoengineering, 2020, 6, 45.	7.0	41
29	Real-Time mRNA Measurement during an <i>in Vitro</i> Transcription and Translation Reaction Using Binary Probes. ACS Synthetic Biology, 2013, 2, 411-417.	3.8	40
30	A partially self-regenerating synthetic cell. Nature Communications, 2020, 11, 6340.	12.8	40
31	A Microfluidic Platform for High-Throughput Multiplexed Protein Quantitation. PLoS ONE, 2015, 10, e0117744.	2.5	35
32	A High-Throughput Microfluidic Platform for Mammalian Cell Transfection and Culturing. Scientific Reports, 2016, 6, 23937.	3.3	35
33	Single Molecule Localization and Discrimination of DNAâ€“Protein Complexes by Controlled Translocation Through Nanocapillaries. Nano Letters, 2016, 16, 7882-7890.	9.1	34
34	Integration column: Microfluidic high-throughput screening. Integrative Biology (United Kingdom), 2009, 1, 19-29.	1.3	32
35	Next generation microfluidic platforms for high-throughput protein biochemistry. Current Opinion in Biotechnology, 2011, 22, 59-65.	6.6	25
36	Probing the Informational and Regulatory Plasticity of a Transcription Factor DNAâ€“Binding Domain. PLoS Genetics, 2012, 8, e1002614.	3.5	23

#	ARTICLE	IF	CITATIONS
37	MITOMI: A Microfluidic Platform for In Vitro Characterization of Transcription Factorâ€“DNA Interaction. Methods in Molecular Biology, 2012, 786, 97-114.	0.9	22
38	Multiplexed surface micropatterning of proteins with a pressure-modulated microfluidic button-membrane. Chemical Communications, 2013, 49, 1264-1266.	4.1	22
39	GreA and GreB Enhance Expression of <i>Escherichia coli</i> RNA Polymerase Promoters in a Reconstituted Transcriptionâ€“Translation System. ACS Synthetic Biology, 2016, 5, 929-935.	3.8	21
40	Live mammalian cell arrays. Nature Methods, 2013, 10, 550-552.	19.0	20
41	Integrating gene synthesis and microfluidic protein analysis for rapid protein engineering. Nucleic Acids Research, 2016, 44, e68-e68.	14.5	19
42	iSLIM: a comprehensive approach to mapping and characterizing gene regulatory networks. Nucleic Acids Research, 2013, 41, e52-e52.	14.5	17
43	Mechanically Induced Trapping of Molecular Interactions and Its Applications. Journal of the Association for Laboratory Automation, 2016, 21, 356-367.	2.8	16
44	Microfluidic Module for Real-Time Generation of Complex Multimolecule Temporal Concentration Profiles. Analytical Chemistry, 2018, 90, 696-701.	6.5	16
45	A SARS-CoV-2 omicron (B.1.1.529) variant outbreak in a primary school in Geneva, Switzerland. Lancet Infectious Diseases, The, 2022, 22, 767-768.	9.1	16
46	Microfluidic device for real-time formulation of reagents and their subsequent encapsulation into double emulsions. Scientific Reports, 2018, 8, 8143.	3.3	14
47	Natureâ€Inspired Circularâ€Economy Recycling for Proteins: Proof of Concept. Advanced Materials, 2021, 33, e2104581.	21.0	14
48	Microfluidic co-culture platform to quantify chemotaxis of primary stem cells. Lab on A Chip, 2016, 16, 1934-1945.	6.0	13
49	A Microfluidic Biodisplay. ACS Synthetic Biology, 2017, 6, 1979-1987.	3.8	13
50	CFPU: A Cell-Free Processing Unit for High-Throughput, Automated In Vitro Circuit Characterization in Steady-State Conditions. Biodesign Research, 2021, 2021, .	1.9	9
51	Steady-State Cell-Free Gene Expression with Microfluidic Chemostats. Methods in Molecular Biology, 2021, 2229, 189-203.	0.9	9
52	A Multilayer Microfluidic Platform for the Conduction of Prolonged Cell-Free Gene Expression. Journal of Visualized Experiments, 2019, , .	0.3	8
53	Rapid Synthesis of Defined Eukaryotic Promoter Libraries. ACS Synthetic Biology, 2012, 1, 483-490.	3.8	7
54	OnePot PURE Cell-Free System. Journal of Visualized Experiments, 2021, , .	0.3	7

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55	Multi-target tracking of packed yeast cells. , 2010, , .		6
56	Biochemistry of Aminoacyl tRNA Synthetase and tRNAs and Their Engineering for Cell-Free and Synthetic Cell Applications. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	6
57	An automated do-it-yourself system for dynamic stem cell and organoid culture in standard multi-well plates. Cell Reports Methods, 2022, 2, 100244.	2.9	6
58	A High-Throughput Microfluidic Method for Generating and Characterizing Transcription Factor Mutant Libraries. Methods in Molecular Biology, 2012, 813, 107-123.	0.9	4
59	High-Throughput Single-Cell TCRâ€“pMHC Dissociation Rate Measurements Performed by an Autonomous Microfluidic Cellular Processing Unit. ACS Sensors, 2022, 7, 159-165.	7.8	1
60	A Protein Interaction Network generated from Streptococcus Pneumoniae. Biophysical Journal, 2009, 96, 7a.	0.5	0
61	Microfluidic Transfection for High-Throughput Mammalian Protein Expression. Methods in Molecular Biology, 2018, 1850, 189-208.	0.9	0
62	Natureâ€Inspired Circularâ€Economy Recycling for Proteins: Proof of Concept (Adv. Mater. 44/2021). Advanced Materials, 2021, 33, 2170345.	21.0	0