Wenbin Du

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5937321/publications.pdf

Version: 2024-02-01

77 papers	4,410 citations	136950 32 h-index	110387 64 g-index
83 all docs	83 docs citations	83 times ranked	4447 citing authors

#	Article	IF	Citations
1	SlipChip. Lab on A Chip, 2009, 9, 2286.	6.0	314
2	Computational Redesign of a PETase for Plastic Biodegradation under Ambient Condition by the GRAPE Strategy. ACS Catalysis, 2021, 11, 1340-1350.	11.2	263
3	Digital PCR on a SlipChip. Lab on A Chip, 2010, 10, 2666.	6.0	247
4	Digital Isothermal Quantification of Nucleic Acids via Simultaneous Chemical Initiation of Recombinase Polymerase Amplification Reactions on SlipChip. Analytical Chemistry, 2011, 83, 3533-3540.	6.5	211
5	The chemistrode: A droplet-based microfluidic device for stimulation and recording with high temporal, spatial, and chemical resolution. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16843-16848.	7.1	208
6	Multiplexed Quantification of Nucleic Acids with Large Dynamic Range Using Multivolume Digital RT-PCR on a Rotational SlipChip Tested with HIV and Hepatitis C Viral Load. Journal of the American Chemical Society, 2011, 133, 17705-17712.	13.7	198
7	High-Throughput Single-Cell Cultivation on Microfluidic Streak Plates. Applied and Environmental Microbiology, 2016, 82, 2210-2218.	3.1	136
8	Microfluidics Using Spatially Defined Arrays of Droplets in One, Two, and Three Dimensions. Annual Review of Analytical Chemistry, 2011, 4, 59-81.	5.4	128
9	Theoretical Design and Analysis of Multivolume Digital Assays with Wide Dynamic Range Validated Experimentally with Microfluidic Digital PCR. Analytical Chemistry, 2011, 83, 8158-8168.	6.5	127
10	PslG, a self-produced glycosyl hydrolase, triggers biofilm disassembly by disrupting exopolysaccharide matrix. Cell Research, 2015, 25, 1352-1367.	12.0	123
11	Identification of Chemotaxis Compounds in Root Exudates and Their Sensing Chemoreceptors in Plant-Growth-Promoting Rhizobacteria Bacillus amyloliquefaciens SQR9. Molecular Plant-Microbe Interactions, 2018, 31, 995-1005.	2.6	121
12	High-Throughput Nanoliter Sample Introduction Microfluidic Chip-Based Flow Injection Analysis System with Gravity-Driven Flows. Analytical Chemistry, 2005, 77, 1330-1337.	6.5	114
13	Evolution of Catalysts Directed by Genetic Algorithms in a Plug-Based Microfluidic Device Tested with Oxidation of Methane by Oxygen. Journal of the American Chemical Society, 2010, 132, 3128-3132.	13.7	113
14	Nanoliter Multiplex PCR Arrays on a SlipChip. Analytical Chemistry, 2010, 82, 4606-4612.	6.5	105
15	Isolation, incubation, and parallel functional testing and identification by FISH of rare microbial single-copy cells from multi-species mixtures using the combination of chemistrode and stochastic confinement. Lab on A Chip, 2009, 9, 2153.	6.0	98
16	SlipChip for Immunoassays in Nanoliter Volumes. Analytical Chemistry, 2010, 82, 3276-3282.	6.5	94
17	Multifunctional Picoliter Droplet Manipulation Platform and Its Application in Single Cell Analysis. Analytical Chemistry, 2011, 83, 7570-7576.	6.5	86
18	Multiparameter Screening on SlipChip Used for Nanoliter Protein Crystallization Combining Free Interface Diffusion and Microbatch Methods. Journal of the American Chemical Society, 2010, 132, 112-119.	13.7	85

#	Article	IF	Citations
19	Absolute Quantification of H5-Subtype Avian Influenza Viruses Using Droplet Digital Loop-Mediated Isothermal Amplification. Analytical Chemistry, 2017, 89, 745-750.	6.5	81
20	Automated Microfluidic Screening Assay Platform Based on DropLab. Analytical Chemistry, 2010, 82, 9941-9947.	6.5	80
21	Cross-Interface Emulsification for Generating Size-Tunable Droplets. Analytical Chemistry, 2016, 88, 3171-3177.	6.5	69
22	User-Loaded SlipChip for Equipment-Free Multiplexed Nanoliter-Scale Experiments. Journal of the American Chemical Society, 2010, 132, 106-111.	13.7	66
23	Integrating Ultraâ€Thermalâ€Sensitive Fluids into Elastomers for Multifunctional Flexible Sensors. Advanced Electronic Materials, 2015, 1, 1500029.	5.1	66
24	An integrated microfluidic device utilizing dielectrophoresis and multiplex array PCR for point-of-care detection of pathogens. Lab on A Chip, 2014, 14, 3917-3924.	6.0	64
25	Assembled Step Emulsification Device for Multiplex Droplet Digital Polymerase Chain Reaction. Analytical Chemistry, 2019, 91, 1779-1784.	6.5	63
26	Microfluidic Picoliter-Scale Translational Spontaneous Sample Introduction for High-Speed Capillary Electrophoresis. Analytical Chemistry, 2009, 81, 3693-3698.	6.5	62
27	Fluorescence-activated droplet sorting of lipolytic microorganisms using a compact optical system. Lab on A Chip, 2018, 18, 190-196.	6.0	55
28	Microfluidic Sequential Injection Analysis in a Short Capillary. Analytical Chemistry, 2006, 78, 6404-6410.	6.5	50
29	Recognition of dominant attractants by key chemoreceptors mediates recruitment of plant growthâ€promoting rhizobacteria. Environmental Microbiology, 2019, 21, 402-415.	3.8	50
30	Complex function by design using spatially pre-structured synthetic microbial communities: degradation of pentachlorophenol in the presence of Hg(<scp>ii</scp>). Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1	48
31	Automated Chemotactic Sorting and Single-cell Cultivation of Microbes using Droplet Microfluidics. Scientific Reports, 2016, 6, 24192.	3.3	36
32	Bacterial chemotaxis on SlipChip. Lab on A Chip, 2014, 14, 3074-3080.	6.0	35
33	A Robust Microfluidic Device for the Synthesis and Crystal Growth of Organometallic Polymers with Highly Organized Structures. Angewandte Chemie - International Edition, 2015, 54, 1846-1850.	13.8	34
34	Highâ€Internalâ€Phase Emulsion Tailoring Polymer Amphiphilicity towards an Efficient NIRâ€Sensitive Bacteria Filter. Small, 2015, 11, 4876-4883.	10.0	32
35	High-throughput single-cell cultivation reveals the underexplored rare biosphere in deep-sea sediments along the Southwest Indian Ridge. Lab on A Chip, 2020, 20, 363-372.	6.0	31
36	Fluorescence-activated droplet sorting of PET degrading microorganisms. Journal of Hazardous Materials, 2022, 424, 127417.	12.4	31

#	Article	IF	Citations
37	Forced Assembly of Waterâ€Dispersible Carbon Nanotubes Trapped in Paper for Cheap Gas Sensors. Small, 2013, 9, 3759-3764.	10.0	29
38	Direct antimicrobial susceptibility testing of bloodstream infection on SlipChip. Biosensors and Bioelectronics, 2019, 135, 200-207.	10.1	29
39	One cell at a time: droplet-based microbial cultivation, screening and sequencing. Marine Life Science and Technology, 2021, 3, 169-188.	4.6	29
40	Plasma-assisted alignment in the fabrication of microchannel-array-based in-tube solid-phase microextraction microchips packed with TiO 2 nanoparticles for phosphopeptide analysis. Analytica Chimica Acta, 2018, 1018, 70-77.	5.4	28
41	Induced root-secreted d-galactose functions as a chemoattractant and enhances the biofilm formation of Bacillus velezensis SQR9 in an McpA-dependent manner. Applied Microbiology and Biotechnology, 2020, 104, 785-797.	3.6	28
42	Assembly of Carbon Nanotubes on Polymer Particles: Towards Rapid Shape Change by Nearâ€Infrared Light. Particle and Particle Systems Characterization, 2013, 30, 235-240.	2.3	27
43	Extraordinary diversity of viruses in deepâ€sea sediments as revealed by metagenomics without prior virion separation. Environmental Microbiology, 2021, 23, 728-743.	3.8	27
44	Rapid and accurate identification of marine microbes with single-cell Raman spectroscopy. Analyst, The, 2020, 145, 3297-3305.	3.5	26
45	Multichannel Dynamic Interfacial Printing: An Alternative Multicomponent Droplet Generation Technique for Lab in a Drop. ACS Applied Materials & Interfaces, 2017, 9, 43545-43552.	8.0	25
46	Microfluidic SlipChip device for multistep multiplexed biochemistry on a nanoliter scale. Lab on A Chip, 2019, 19, 3200-3211.	6.0	25
47	An automated electrokinetic continuous sample introduction system for microfluidic chip-based capillary electrophoresis. Analyst, The, 2005, 130, 1052.	3.5	22
48	High-throughput microfluidic sample-introduction systems. TrAC - Trends in Analytical Chemistry, 2008, 27, 521-532.	11.4	22
49	Interfacial Emulsification: An Emerging Monodisperse Droplet Generation Method for Microreactors and Bioanalysis. Langmuir, 2018, 34, 11655-11666.	3.5	22
50	High-performance detection of Mycobacterium bovis in milk using digital LAMP. Food Chemistry, 2020, 327, 126945.	8.2	21
51	Dynamic Interfacial Printing for Monodisperse Droplets and Polymeric Microparticles. Advanced Materials Technologies, 2016, 1, 1600021.	5.8	20
52	Chemotactic screening of imidazolinone-degrading bacteria by microfluidic SlipChip. Journal of Hazardous Materials, 2019, 366, 512-519.	12.4	20
53	Interface solution isoelectric focusing with in situ <scp>MALDI</scp>â€<scp>TOF</scp> mass spectrometry. Electrophoresis, 2014, 35, 2528-2533.	2.4	18
54	Microfluidic liquidâ€“liquid extraction system based on stopped-flow technique and liquid core waveguide capillary. Talanta, 2006, 70, 392-396.	5.5	17

#	Article	IF	Citations
55	Fabrication of a monolithic sampling probe system for automated and continuous sample introduction in microchipâ€based CE. Electrophoresis, 2007, 28, 2912-2919.	2.4	17
56	Virgibacillus indicus sp. nov. and Virgibacillus profundi sp. nov, two moderately halophilic bacteria isolated from marine sediment by using microfluidic streak plates. International Journal of Systematic and Evolutionary Microbiology, 2018, 68, 2015-2023.	1.7	17
57	Harnessing microfluidic streak plate technique to investigate the gut microbiome ofReticulitermes chinensis. MicrobiologyOpen, 2019, 8, e00654.	3.0	16
58	Slip-driven microfluidic devices for nucleic acid analysis. Biomicrofluidics, 2019, 13, 041502.	2.4	15
59	A microfluidic surface-enhanced Raman spectroscopy approach for assessing the particle number effect of AgNPs on cytotoxicity. Ecotoxicology and Environmental Safety, 2018, 162, 529-535.	6.0	14
60	The interaction between self â€“ assembling peptides and emodin and the controlled release of emodin from in-situ hydrogel. Artificial Cells, Nanomedicine and Biotechnology, 2019, 47, 3961-3975.	2.8	14
61	Gimesia benthica sp. nov., a planctomycete isolated from a deep-sea water sample of the Northwest Indian Ocean. International Journal of Systematic and Evolutionary Microbiology, 2020, 70, 4384-4389.	1.7	14
62	Highâ€throughput analysis of DNA fragments using a miniaturized CE system combined with a slottedâ€vial array sample introduction system. Electrophoresis, 2008, 29, 4733-4738.	2.4	12
63	Direct enrichment of pathogens from physiological samples of high conductivity and viscosity using H-filter and positive dielectrophoresis. Biomicrofluidics, 2018, 12, 014109.	2.4	12
64	Dynamic Sessileâ€Droplet Habitats for Controllable Cultivation of Bacterial Biofilm. Small, 2018, 14, e1800658.	10.0	12
65	Hyphobacterium indicum sp. nov., isolated from deep seawater, and emended description of the genus Hyphobacterium. International Journal of Systematic and Evolutionary Microbiology, 2018, 68, 3760-3765.	1.7	11
66	Signal binding at both modules of its dCache domain enables the McpA chemoreceptor of Bacillus velezensis to sense different ligands. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	11
67	Microfluidic chip-based valveless flow injection analysis system with gravity-driven flows. Analyst, The, 2008, 133, 1237.	3.5	10
68	Interfacial Nanoinjectionâ€Based Nanoliter Singleâ€Cell Analysis. Small, 2020, 16, e1903739.	10.0	9
69	Using TIRF microscopy to quantify and confirm efficient mass transfer at the substrate surface of the chemistrode. New Journal of Physics, 2009, 11, 075017.	2.9	8
70	Revealing the community and metabolic potential of active methanotrophs by targeted metagenomics in the Zoige wetland of the Tibetan Plateau. Environmental Microbiology, 2021, 23, 6520-6535.	3.8	8
71	OsciDrop: A Versatile Deterministic Droplet Generator. Analytical Chemistry, 2022, 94, 2918-2925.	6.5	8
72	Tunable and Contamination-Free Injection with Microfluidics by Stepinjection. Analytical Chemistry, 2021, 93, 13112-13117.	6.5	7

#	Article	IF	Citations
73	Halovulum marinum sp. nov., isolated from deep-sea water of the Indian Ocean, and emended description of the genus Halovulum. International Journal of Systematic and Evolutionary Microbiology, 2020, 70, 4523-4530.	1.7	7
74	Establishment of a finite element model for extracting chemical reaction kinetics in a micro-flow injection system with high throughput sampling. Talanta, 2015, 140, 176-182.	5.5	5
75	Slip Molding for Precision Fabrication of Microparts. Langmuir, 2020, 36, 585-590.	3.5	5
76	Macroporous Materials: Highâ€Internalâ€Phase Emulsion Tailoring Polymer Amphiphilicity towards an Efficient NIRâ€Sensitive Bacteria Filter (Small 37/2015). Small, 2015, 11, 4875-4875.	10.0	0
77	Two Metagenome-Assembled Genomes of Hydrogen-Dependent Methanomassiliicoccales Methanogens from the Zoige Wetland of the Tibetan Plateau. Microbiology Resource Announcements, 2021, 10, .	0.6	0