

# Wenbin Du

## List of Publications by Year in descending order

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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  | Fluorescence-activated droplet sorting of PET degrading microorganisms. <i>Journal of Hazardous Materials</i> , 2022, 424, 127417.   | 12.4 | 31        |
| 2  | OsciDrop: A Versatile Deterministic Droplet Generator. <i>Analytical Chemistry</i> , 2022, 94, 2918-2925.  | 6.5  | 8         |
| 3  | Signal binding at both modules of its dCache domain enables the McpA chemoreceptor of <i>Bacillus velezensis</i> to sense different ligands. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, . | 7.1  | 11        |
| 4  | Extraordinary diversity of viruses in deep-sea sediments as revealed by metagenomics without prior virion separation. <i>Environmental Microbiology</i> , 2021, 23, 728-743.   | 3.8  | 27        |
| 5  | One cell at a time: droplet-based microbial cultivation, screening and sequencing. <i>Marine Life Science and Technology</i> , 2021, 3, 169-188.   | 4.6  | 29        |
| 6  | Computational Redesign of a PETase for Plastic Biodegradation under Ambient Condition by the GRAPE Strategy. <i>ACS Catalysis</i> , 2021, 11, 1340-1350.   | 11.2 | 263       |
| 7  | Two Metagenome-Assembled Genomes of Hydrogen-Dependent <i>Methanomassiliicoccales</i> Methanogens from the Zoige Wetland of the Tibetan Plateau. <i>Microbiology Resource Announcements</i> , 2021, 10, .  | 0.6  | 0         |
| 8  | Revealing the community and metabolic potential of active methanotrophs by targeted metagenomics in the Zoige wetland of the Tibetan Plateau. <i>Environmental Microbiology</i> , 2021, 23, 6520-6535.   | 3.8  | 8         |
| 9  | Tunable and Contamination-Free Injection with Microfluidics by Stepinjection. <i>Analytical Chemistry</i> , 2021, 93, 13112-13117.   | 6.5  | 7         |
| 10 | Interfacial Nanoinjection-Based Nanoliter Single-Cell Analysis. <i>Small</i> , 2020, 16, e1903739.   | 10.0 | 9         |
| 11 | Slip Molding for Precision Fabrication of Microparts. <i>Langmuir</i> , 2020, 36, 585-590.   | 3.5  | 5         |
| 12 | High-throughput single-cell cultivation reveals the underexplored rare biosphere in deep-sea sediments along the Southwest Indian Ridge. <i>Lab on A Chip</i> , 2020, 20, 363-372.   | 6.0  | 31        |
| 13 | Induced root-secreted d-galactose functions as a chemoattractant and enhances the biofilm formation of <i>Bacillus velezensis</i> SQR9 in an McpA-dependent manner. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 785-797.            | 3.6  | 28        |
| 14 | Rapid and accurate identification of marine microbes with single-cell Raman spectroscopy. <i>Analyst</i> , 2020, 145, 3297-3305.   | 3.5  | 26        |
| 15 | High-performance detection of <i>Mycobacterium bovis</i> in milk using digital LAMP. <i>Food Chemistry</i> , 2020, 327, 126945.  | 8.2  | 21        |
| 16 | <i>Gimesia benthica</i> sp. nov., a planctomycete isolated from a deep-sea water sample of the Northwest Indian Ocean. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2020, 70, 4384-4389.                             | 1.7  | 14        |
| 17 | <i>Halovulum marinum</i> sp. nov., isolated from deep-sea water of the Indian Ocean, and emended description of the genus <i>Halovulum</i> . <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2020, 70, 4523-4530.       | 1.7  | 7         |
| 18 | Harnessing microfluidic streak plate technique to investigate the gut microbiome of <i>Reticulitermes chinensis</i> . <i>MicrobiologyOpen</i> , 2019, 8, e00654.   | 3.0  | 16        |

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|----|---|------|-----------|
| 19 | Slip-driven microfluidic devices for nucleic acid analysis. <i>Biomicrofluidics</i> , 2019, 13, 041502.   | 2.4  | 15        |
| 20 | The interaction between self-â€ assembling peptides and emodin and the controlled release of emodin from <i>in-situ</i> hydrogel. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2019, 47, 3961-3975.  | 2.8  | 14        |
| 21 | Microfluidic SlipChip device for multistep multiplexed biochemistry on a nanoliter scale. <i>Lab on A Chip</i> , 2019, 19, 3200-3211.   | 6.0  | 25        |
| 22 | Direct antimicrobial susceptibility testing of bloodstream infection on SlipChip. <i>Biosensors and Bioelectronics</i> , 2019, 135, 200-207.  | 10.1 | 29        |
| 23 | Recognition of dominant attractants by key chemoreceptors mediates recruitment of plant growth-promoting rhizobacteria. <i>Environmental Microbiology</i> , 2019, 21, 402-415.  | 3.8  | 50        |
| 24 | Assembled Step Emulsification Device for Multiplex Droplet Digital Polymerase Chain Reaction. <i>Analytical Chemistry</i> , 2019, 91, 1779-1784.  | 6.5  | 63        |
| 25 | Chemotactic screening of imidazolinone-degrading bacteria by microfluidic SlipChip. <i>Journal of Hazardous Materials</i> , 2019, 366, 512-519.   | 12.4 | 20        |
| 26 | Plasma-assisted alignment in the fabrication of microchannel-array-based in-tube solid-phase microextraction microchips packed with TiO <sub>2</sub> nanoparticles for phosphopeptide analysis. <i>Analytica Chimica Acta</i> , 2018, 1018, 70-77.                                      | 5.4  | 28        |
| 27 | Direct enrichment of pathogens from physiological samples of high conductivity and viscosity using H-filter and positive dielectrophoresis. <i>Biomicrofluidics</i> , 2018, 12, 014109.   | 2.4  | 12        |
| 28 | Dynamic Sessile-Droplet Habitats for Controllable Cultivation of Bacterial Biofilm. <i>Small</i> , 2018, 14, e1800658.  | 10.0 | 12        |
| 29 | Identification of Chemotaxis Compounds in Root Exudates and Their Sensing Chemoreceptors in Plant-Growth-Promoting Rhizobacteria <i>Bacillus amyloliquefaciens</i> SQR9. <i>Molecular Plant-Microbe Interactions</i> , 2018, 31, 995-1005.  | 2.6  | 121       |
| 30 | Fluorescence-activated droplet sorting of lipolytic microorganisms using a compact optical system. <i>Lab on A Chip</i> , 2018, 18, 190-196.  | 6.0  | 55        |
| 31 | Interfacial Emulsification: An Emerging Monodisperse Droplet Generation Method for Microreactors and Bioanalysis. <i>Langmuir</i> , 2018, 34, 11655-11666.  | 3.5  | 22        |
| 32 | A microfluidic surface-enhanced Raman spectroscopy approach for assessing the particle number effect of AgNPs on cytotoxicity. <i>Ecotoxicology and Environmental Safety</i> , 2018, 162, 529-535.  | 6.0  | 14        |
| 33 | <i>Virgibacillus indicus</i> sp. nov. and <i>Virgibacillus profundi</i> sp. nov., two moderately halophilic bacteria isolated from marine sediment by using microfluidic streak plates. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2018, 68, 2015-2023. | 1.7  | 17        |
| 34 | <i>Hyphobacterium indicum</i> sp. nov., isolated from deep seawater, and emended description of the genus <i>Hyphobacterium</i> . <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2018, 68, 3760-3765.   | 1.7  | 11        |
| 35 | Absolute Quantification of H5-Subtype Avian Influenza Viruses Using Droplet Digital Loop-Mediated Isothermal Amplification. <i>Analytical Chemistry</i> , 2017, 89, 745-750.  | 6.5  | 81        |
| 36 | Multichannel Dynamic Interfacial Printing: An Alternative Multicomponent Droplet Generation Technique for Lab in a Drop. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 43545-43552.  | 8.0  | 25        |

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|----|--|------|-----------|
| 37 | Dynamic Interfacial Printing for Monodisperse Droplets and Polymeric Microparticles. <i>Advanced Materials Technologies</i> , 2016, 1, 1600021.  | 5.8  | 20        |
| 38 | Automated Chemotactic Sorting and Single-cell Cultivation of Microbes using Droplet Microfluidics. <i>Scientific Reports</i> , 2016, 6, 24192.   | 3.3  | 36        |
| 39 | High-Throughput Single-Cell Cultivation on Microfluidic Streak Plates. <i>Applied and Environmental Microbiology</i> , 2016, 82, 2210-2218.  | 3.1  | 136       |
| 40 | Cross-Interface Emulsification for Generating Size-Tunable Droplets. <i>Analytical Chemistry</i> , 2016, 88, 3171-3177.  | 6.5  | 69        |
| 41 | Macroporous Materials: High-Internal-Phase Emulsion Tailoring Polymer Amphiphilicity towards an Efficient NIR-Sensitive Bacteria Filter (Small 37/2015). <i>Small</i> , 2015, 11, 4875-4875.   | 10.0 | 0         |
| 42 | Integrating Ultra-Thin Thermal-Sensitive Fluids into Elastomers for Multifunctional Flexible Sensors. <i>Advanced Electronic Materials</i> , 2015, 1, 1500029.   | 5.1  | 66        |
| 43 | High-Internal-Phase Emulsion Tailoring Polymer Amphiphilicity towards an Efficient NIR-Sensitive Bacteria Filter. <i>Small</i> , 2015, 11, 4876-4883.  | 10.0 | 32        |
| 44 | Establishment of a finite element model for extracting chemical reaction kinetics in a micro-flow injection system with high throughput sampling. <i>Talanta</i> , 2015, 140, 176-182.   | 5.5  | 5         |
| 45 | PslG, a self-produced glycosyl hydrolase, triggers biofilm disassembly by disrupting exopolysaccharide matrix. <i>Cell Research</i> , 2015, 25, 1352-1367.   | 12.0 | 123       |
| 46 | A Robust Microfluidic Device for the Synthesis and Crystal Growth of Organometallic Polymers with Highly Organized Structures. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 1846-1850.   | 13.8 | 34        |
| 47 | Interface solution isoelectric focusing with in situ MALDI-TOF mass spectrometry. <i>Electrophoresis</i> , 2014, 35, 2528-2533.  | 2.4  | 18        |
| 48 | An integrated microfluidic device utilizing dielectrophoresis and multiplex array PCR for point-of-care detection of pathogens. <i>Lab on A Chip</i> , 2014, 14, 3917-3924.  | 6.0  | 64        |
| 49 | Bacterial chemotaxis on SlipChip. <i>Lab on A Chip</i> , 2014, 14, 3074-3080.  | 6.0  | 35        |
| 50 | Forced Assembly of Water-Dispersible Carbon Nanotubes Trapped in Paper for Cheap Gas Sensors. <i>Small</i> , 2013, 9, 3759-3764.   | 10.0 | 29        |
| 51 | Assembly of Carbon Nanotubes on Polymer Particles: Towards Rapid Shape Change by Near-Infrared Light. <i>Particle and Particle Systems Characterization</i> , 2013, 30, 235-240.   | 2.3  | 27        |
| 52 | Complex function by design using spatially pre-structured synthetic microbial communities: degradation of pentachlorophenol in the presence of Hg(II). <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 107-115.                               | 1.8  | 10        |
| 53 | Digital Isothermal Quantification of Nucleic Acids via Simultaneous Chemical Initiation of Recombinase Polymerase Amplification Reactions on SlipChip. <i>Analytical Chemistry</i> , 2011, 83, 3533-3540.  | 6.5  | 211       |
| 54 | 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. <i>Journal of the American Chemical Society</i> , 2011, 133, 17705-17712. | 13.7 | 198       |

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|----|--|------|-----------|
| 55 | 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       |
| 56 | 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       |
| 57 | Multifunctional Picoliter Droplet Manipulation Platform and Its Application in Single Cell Analysis. Analytical Chemistry, 2011, 83, 7570-7576.  | 6.5  | 86        |
| 58 | 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       |
| 59 | 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        |
| 60 | Automated Microfluidic Screening Assay Platform Based on DropLab. Analytical Chemistry, 2010, 82, 9941-9947.   | 6.5  | 80        |
| 61 | Nanoliter Multiplex PCR Arrays on a SlipChip. Analytical Chemistry, 2010, 82, 4606-4612.   | 6.5  | 105       |
| 62 | SlipChip for Immunoassays in Nanoliter Volumes. Analytical Chemistry, 2010, 82, 3276-3282.   | 6.5  | 94        |
| 63 | User-Loaded SlipChip for Equipment-Free Multiplexed Nanoliter-Scale Experiments. Journal of the American Chemical Society, 2010, 132, 106-111.   | 13.7 | 66        |
| 64 | Digital PCR on a SlipChip. Lab on A Chip, 2010, 10, 2666.  | 6.0  | 247       |
| 65 | Using TIRF microscopy to quantify and confirm efficient mass transfer at the substrate surface of the chemistode. New Journal of Physics, 2009, 11, 075017.  | 2.9  | 8         |
| 66 | Microfluidic Picoliter-Scale Translational Spontaneous Sample Introduction for High-Speed Capillary Electrophoresis. Analytical Chemistry, 2009, 81, 3693-3698.  | 6.5  | 62        |
| 67 | Isolation, incubation, and parallel functional testing and identification by FISH of rare microbial single-copy cells from multi-species mixtures using the combination of chemistode and stochastic confinement. Lab on A Chip, 2009, 9, 2153.  | 6.0  | 98        |
| 68 | SlipChip. Lab on A Chip, 2009, 9, 2286.  | 6.0  | 314       |
| 69 | High-throughput analysis of DNA fragments using a miniaturized CE system combined with a slotted vial array sample introduction system. Electrophoresis, 2008, 29, 4733-4738.  | 2.4  | 12        |
| 70 | High-throughput microfluidic sample-introduction systems. TrAC - Trends in Analytical Chemistry, 2008, 27, 521-532.  | 11.4 | 22        |
| 71 | Microfluidic chip-based valveless flow injection analysis system with gravity-driven flows. Analyst, The, 2008, 133, 1237.   | 3.5  | 10        |
| 72 | The chemistode: 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       |

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|----|--|-----|-----------|
| 73 | Fabrication of a monolithic sampling probe system for automated and continuous sample introduction in microchip-based CE. <i>Electrophoresis</i> , 2007, 28, 2912-2919.            | 2.4 | 17        |
| 74 | Microfluidic Sequential Injection Analysis in a Short Capillary. <i>Analytical Chemistry</i> , 2006, 78, 6404-6410.  | 6.5 | 50        |
| 75 | Microfluidic liquid-liquid extraction system based on stopped-flow technique and liquid core waveguide capillary. <i>Talanta</i> , 2006, 70, 392-396.                              | 5.5 | 17        |
| 76 | An automated electrokinetic continuous sample introduction system for microfluidic chip-based capillary electrophoresis. <i>Analyst</i> , 2005, 130, 1052.                         | 3.5 | 22        |
| 77 | High-Throughput Nanoliter Sample Introduction Microfluidic Chip-Based Flow Injection Analysis System with Gravity-Driven Flows. <i>Analytical Chemistry</i> , 2005, 77, 1330-1337. | 6.5 | 114       |