

# Zhen Zhu

## List of Publications by Year in descending order

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35  
papers

525  
citations

623699

14  
h-index

677123

22  
g-index

35  
all docs

35  
docs citations

35  
times ranked

599  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Microfluidic single-cell cultivation chip with controllable immobilization and selective release of yeast cells. <i>Lab on A Chip</i> , 2012, 12, 906-915.   | 6.0  | 68        |
| 2  | Improvement of the 2D dynamic CA method for photoresist etching simulation and its application to deep UV lithography simulations of SU-8 photoresists. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, 2538-2547.                   | 2.6  | 53        |
| 3  | Electrical stimulation of neonatal rat cardiomyocytes using conductive polydopamine-reduced graphene oxide-hybrid hydrogels for constructing cardiac microtissues. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 205, 111844.                  | 5.0  | 46        |
| 4  | Time-lapse electrical impedance spectroscopy for monitoring the cell cycle of single immobilized <i>S. pombe</i> cells. <i>Scientific Reports</i> , 2015, 5, 17180.  | 3.3  | 40        |
| 5  | Design and fabrication of an integrated heart-on-a-chip platform for construction of cardiac tissue from human iPSC-derived cardiomyocytes and in situ evaluation of physiological function. <i>Biosensors and Bioelectronics</i> , 2021, 179, 113080. | 10.1 | 36        |
| 6  | Real-time monitoring of immobilized single yeast cells through multifrequency electrical impedance spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 7015-7025.   | 3.7  | 32        |
| 7  | Microfluidics-based single-step preparation of injection-ready polymeric nanosystems for medical imaging and drug delivery. <i>Nanoscale</i> , 2015, 7, 16983-16993.   | 5.6  | 27        |
| 8  | Modeling, simulation and experimental verification of inclined UV lithography for SU-8 negative thick photoresists. <i>Journal of Micromechanics and Microengineering</i> , 2008, 18, 125017.  | 2.6  | 23        |
| 9  | Using microfluidic impedance cytometry to measure <i>C. elegans</i> worms and identify their developmental stages. <i>Sensors and Actuators B: Chemical</i> , 2018, 275, 470-482.  | 7.8  | 22        |
| 10 | Recent Advances in Electrical Impedance Sensing Technology for Single-Cell Analysis. <i>Biosensors</i> , 2021, 11, 470.  | 4.7  | 22        |
| 11 | A Versatile Bonding Method for PDMS and SU-8 and Its Application towards a Multifunctional Microfluidic Device. <i>Micromachines</i> , 2016, 7, 230.   | 2.9  | 19        |
| 12 | Investigation of geometry-dependent sensing characteristics of microfluidic electrical impedance spectroscopy through modeling and simulation. <i>Sensors and Actuators B: Chemical</i> , 2016, 235, 515-524.  | 7.8  | 16        |
| 13 | A Wide-Band Digital Lock-In Amplifier and Its Application in Microfluidic Impedance Measurement. <i>Sensors</i> , 2019, 19, 3519.  | 3.8  | 16        |
| 14 | A Bubble-Free Microfluidic Device for Easy-to-Operate Immobilization, Culturing and Monitoring of Zebrafish Embryos. <i>Micromachines</i> , 2019, 10, 168.   | 2.9  | 16        |
| 15 | The Swelling Effects during the Development Processes of Deep UV Lithography of SU-8 Photoresists: Theoretical Study, Simulation and Verification. , 2007, , .   |      | 10        |
| 16 | An Efficient Simulation System for Inclined UV Lithography Processes of Thick SU-8 Photoresists. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 2011, 24, 294-303.  | 1.7  | 10        |
| 17 | In Situ Liquid Cell Transmission Electron Microscopy Investigation on the Dissolution-Regrowth Mechanism Dominating the Shape Evolution of Silver Nanoplates. <i>Crystal Growth and Design</i> , 2021, 21, 1314-1322.                                  | 3.0  | 9         |
| 18 | Multiplexing microelectrodes for dielectrophoretic manipulation and electrical impedance measurement of single particles and cells in a microfluidic device. <i>Electrophoresis</i> , 2019, 40, 1436-1445.   | 2.4  | 7         |

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|----|--|------|-----------|
| 19 | Design and 3D modeling investigation of a microfluidic electrode array for electrical impedance measurement of single yeast cells. <i>Electrophoresis</i> , 2021, 42, 1996-2009.   | 2.4  | 7         |
| 20 | A 3D profile simulator for inclined/multi-directional UV lithography process of negative-tone thick photoresists. , 2009, , .  |      | 5         |
| 21 | Dynamic and static impedance spectroscopy for single particle characterization in microfluidic chips. , 2012, , .  |      | 5         |
| 22 | Multiple sgRNAs facilitate base editing-mediated i-stop to induce complete and precise gene disruption. <i>Protein and Cell</i> , 2019, 10, 832-839.   | 11.0 | 5         |
| 23 | Investigation of daughter cell dissection coincidence of single budding yeast cells immobilized in microfluidic traps. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 2181-2193.   | 3.7  | 5         |
| 24 | A microfluidic single-cell array for in situ laminar-flow-based comparative culturing of budding yeast cells. <i>Talanta</i> , 2021, 231, 122401.  | 5.5  | 5         |
| 25 | A high-throughput microfluidic diploid yeast long-term culturing (DYLC) chip capable of bud reorientation and concerted daughter dissection for replicative lifespan determination. <i>Journal of Nanobiotechnology</i> , 2022, 20, 171. | 9.1  | 5         |
| 26 | Contact UV Lithography Simulation for Thick SU-8 Photoresist. , 2006, , .  |      | 4         |
| 27 | Real-Time Monitoring of Dissection Events of Single Budding Yeast in a Microfluidic Cell-Culturing Device Integrated With Electrical Impedance Biosensor. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 783428.        | 4.1  | 3         |
| 28 | Using microfluidic impedance cytometry to identify the life stages of <i>C. elegans</i> nematodes. , 2017, , .   |      | 2         |
| 29 | Wide-band Electrical Impedance Spectroscopy (EIS) Measures <i>S. pombe</i> Cell Growth in vivo. <i>Methods in Molecular Biology</i> , 2018, 1721, 135-153.   | 0.9  | 2         |
| 30 | Protein acetylation regulates xylose metabolism during adaptation of <i>Saccharomyces cerevisiae</i> . <i>Biotechnology for Biofuels</i> , 2021, 14, 241.  | 6.2  | 2         |
| 31 | Simulations, analysis and characterization of the development profiles for the thick SU-8 UV lithography process. , 2010, , .  |      | 1         |
| 32 | Investigation of housing on packaged MEMS wind sensors for industrial application. , 2017, , .   |      | 1         |
| 33 | Monitoring Single <i>S. cerevisiae</i> Cells with Multifrequency Electrical Impedance Spectroscopy in an Electrode-Integrated Microfluidic Device. <i>Methods in Molecular Biology</i> , 2021, 2189, 105-118.                            | 0.9  | 1         |
| 34 | The effect from the substrate reflection to the inclined UV lithography of SU-8 photoresist. <i>Proceedings of SPIE</i> , 2009, , .  | 0.8  | 0         |
| 35 | Real-time multi-parameter monitoring of immobilized single yeast cells via electrical impedance spectroscopy. , 2013, , .  |      | 0         |