# Chia-Yuan Chen

List of Publications by Year
in descending order



| 58 | 925 | 430754 | 501076 |
|---|---|---|---|
| papers | citations | 18 h-index | 28 g-index |

| 59 | 59 | 59 | 1097 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | An aquatic microrobot for microscale flow manipulation. Scientific Reports, 2022, 12, 5041. | 1.6 | 4 |
| 2 | Microfluidic Applications of Artificial Cilia: Recent Progress, Demonstration, and Future Perspectives. Micromachines, 2022, 13, 735. | 1.4 | 14 |
| 3 | A non-invasive acoustic-trapping of zebrafish microfluidics. Biomicrofluidics, 2021, 15, 014109. | 1.2 | 4 |
| 4 | Comprehensive Hydrodynamic Investigation of Zebrafish Tail Beats in a Microfluidic Device with a Shape Memory Alloy. Micromachines, 2021, 12, 68. | 1.4 | 5 |
| 5 | A smart microfluidic-based fish farm for zebrafish screening. Microfluidics and Nanofluidics, 2021, 25, 1. | 1.0 | 5 |
| 6 | The evaluation of zebrafish cardiovascular and behavioral functions through microfluidics. Scientific Reports, 2021, 11, 13801. | 1.6 | 8 |
| 7 | Shape-programmable artificial cilia for microfluidics. IScience, 2021, 24, 103367. | 1.9 | 7 |
| 8 | A Multi-Inlet Microfluidic Nozzle Head with Shape Memory Alloy-Based Switching for Biomaterial Printing with Precise Flow Control. Biochip Journal, 2020, 14, 340-348. | 2.5 | 4 |
| 9 | Hydrodynamic benefits of artificial cilia distribution towards photodegradation processes. Sensors and Actuators A: Physical, 2020, 313, 112184. | 2.0 | 4 |
| 10 | Edible additive effects on zebrafish cardiovascular functionality with hydrodynamic assessment. Scientific Reports, 2020, 10, 16243. | 1.6 | 4 |
| 11 | Extending Absorption Edge through the Hybrid Resonator-Based Absorber with Wideband and Near-Perfect Absorption in Visible Region. Materials, 2020, 13, 1470. | 1.3 | 24 |
| 12 | Thrust and Hydrodynamic Efficiency of the Bundled Flagella. Micromachines, 2019, 10, 449. | 1.4 | 8 |
| 13 | Enhanced Visible-Responsive Photodegradation Through SnFe2O4 Nanoparticles with Modified Magnetic Artificial Cilia Actuation. , 2019, , . | | 0 |
| 14 | Microfluidic retention of progressively motile zebrafish sperms. Lab on A Chip, 2019, 19, 4033-4042. | 3.1 | 16 |
| 15 | Microfluidic Transportation Control of Larval Zebrafish through Optomotor Regulations under a Pressure-Driven Flow. Micromachines, 2019, 10, 880. | 1.4 | 9 |
| 16 | On the improvement of visible-responsive photodegradation through artificial cilia. Sensors and Actuators A: Physical, 2019, 285, 234-240. | 2.0 | 9 |
| 17 | Sperm activation through orbital and self-axis revolutions using an artificial cilia embedded serpentine microfluidic platform. Scientific Reports, 2018, 8, 4605. | 1.6 | 18 |
| 18 | A noninvasive light driven technique integrated microfluidics for zebrafish larvae transportation. Biomicrofluidics, 2018, 12, 021101. | 1.2 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Computational Fluid Dynamics Modeling of the Human Pulmonary Arteries with Experimental Validation. Annals of Biomedical Engineering, 2018, 46, 1309-1324. | 1.3 | 20 |
| 20 | A Shape Memory Alloy-Based Miniaturized Actuator for Catheter Interventions. Cardiovascular Engineering and Technology, 2018, 9, 405-413. | 0.7 | 7 |
| 21 | Hydrodynamic Investigation of a Wafer Rinse Process Through Numerical Modeling and Flow Visualization Methods. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, . | 0.8 | 1 |
| 22 | Zebrafish sperm activation through an artificial cilia embedded serpentine microfluidic platform. , 2018, , . | | 1 |
| 23 | An artificial cilia based micromixer for superior zebrafish sperm activation. , 2017, , . | | 0 |
| 24 | Hydrodynamically efficient micropropulsion through a new artificial cilia beating concept. Microsystem Technologies, 2017, 23, 5893-5902. | 1.2 | 9 |
| 25 | An artificial cilia-based micromixer towards the activation of zebrafish sperms. Sensors and Actuators B: Chemical, 2017, 244, 541-548. | 4.0 | 15 |
| 26 | Inherent formation of porous p-type Si nanowires using palladium-assisted chemical etching. Applied Surface Science, 2017, 392, 498-502. | 3.1 | 21 |
| 27 | An Integrated Artificial Cilia Based Microfluidic Device for Micropumping and Micromixing Applications. Micromachines, 2017, 8, 260. | 1.4 | 15 |
| 28 | Endoleak Assessment Using Computational Fluid Dynamics and Image Processing Methods in Stented Abdominal Aortic Aneurysm Models. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-9. | 0.7 | 4 |
| 29 | Manipulation of zebrafishâ€™s orientation using artificial cilia in a microchannel with actively adaptive wall design. Scientific Reports, 2016, 6, 36385. | 1.6 | 18 |
| 30 | Characterization of zebrafish larvae suction feeding flow using Î¼PIV and optical coherence tomography. Experiments in Fluids, 2016, 57, 1. | 1.1 | 21 |
| 31 | Hydrodynamic influences of artificial cilia beating behaviors on micromixing. Chemical Engineering and Processing: Process Intensification, 2016, 99, 33-40. | 1.8 | 23 |
| 32 | Axial orientation control of zebrafish larvae using artificial cilia. Microfluidics and Nanofluidics, 2016, 20, 1. | 1.0 | 18 |
| 33 | Efficient metamaterial-based plasmonic sensors for micromixing evaluation. Journal Physics D: Applied Physics, 2016, 49, 035501. | 1.3 | 2 |
| 34 | Fabrication of PDMS passive micromixer by lost-wax casting. International Journal of Precision Engineering and Manufacturing, 2015, 16, 2033-2039. | 1.1 | 29 |
| 35 | Experimental and computational investigation of the patient-specific abdominal aortic aneurysm pressure field. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 981-992. | 0.9 | 27 |
| 36 | Orientation control of zebrafish embryos using artificial cilia in a 3D flow-through microchannel. , 2015, , . | | 3 |

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|---|---|---|---|
| 37 | Microscale flow propulsion through bioinspired and magnetically actuated artificial cilia. Biomicrofluidics, 2015, 9, 034105. | 1.2 | 20 |
| 38 | Efficient micromixing through artificial cilia actuation with fish-schooling configuration. Chemical Engineering Journal, 2015, 259, 391-396. | 6.6 | 19 |
| 39 | Hemodynamic Flow Visualization of Early Embryonic Great Vessels Using Î¼PIV. Methods in Molecular Biology, 2015, 1189, 17-30. | 0.4 | 2 |
| 40 | Effects of Intraluminal Thrombus on Patient-Specific Abdominal Aortic Aneurysm Hemodynamics via Stereoscopic Particle Image Velocity and Computational Fluid Dynamics Modeling. Journal of Biomechanical Engineering, 2014, 136, 031001. | 0.6 | 33 |
| 41 | Simultaneous real-time quantification of blood flow and vascular growth in the chick embryo using optical coherence tomography. , 2014, , . | | 3 |
| 42 | Microfluidics Expands the Zebrafish Potentials in Pharmaceutically Relevant Screening. Advanced Healthcare Materials, 2014, 3, 940-945. | 3.9 | 27 |
| 43 | Real-Time Remote Control of Artificial Cilia Actuation Using Fingertip Drawing for Efficient Micromixing. Journal of the Association for Laboratory Automation, 2014, 19, 492-497. | 2.8 | 8 |
| 44 | Inducing 3D vortical flow patterns with 2D asymmetric actuation of artificial cilia for high-performance active micromixing. Experiments in Fluids, 2014, 55, 1. | 1.1 | 24 |
| 45 | Magnetically actuated artificial cilia for optimum mixing performance in microfluidics. Lab on A Chip, 2013, 13, 2834. | 3.1 | 83 |
| 46 | Time-resolved OCT-Î¼PIV: a new microscopic PIV technique for noninvasive depth-resolved pulsatile flow profile acquisition. Experiments in Fluids, 2013, 54, 1. | 1.1 | 13 |
| 47 | High-speed three-dimensional characterization of fluid flows induced by micro-objects in deep microchannels. Biochip Journal, 2013, 7, 95-103. | 2.5 | 5 |
| 48 | Characterization of neonatal aortic cannula jet flow regimes for improved cardiopulmonary bypass. Journal of Biomechanics, 2013, 46, 362-372. | 0.9 | 25 |
| 49 | Fluid dynamics analysis of magnetically actuated ciliated nano/micro structures for flow mixing and propulsion applications. , 2013, , . | | 1 |
| 50 | Influences of textured substrates on the heart rate of developing zebrafish embryos. Nanotechnology, 2013, 24, 265101. | 1.3 | 8 |
| 51 | Title is missing!. Journal of Medical and Biological Engineering, 2013, , . | 1.0 | 2 |
| 52 | Device Specific Aortic Outflow Cannula Jets Studied Using 2D PIV and High-Performance 3D CFD Simulation. , 2012, , . | | 1 |
| 53 | Analysis of early embryonic great-vessel microcirculation in zebrafish using high-speed confocal Î¼PIV. Biorheology, 2011, 48, 305-321. | 1.2 | 28 |
| 54 | Hemodynamics of the Hepatic Venous Three-Vessel Confluences Using Particle Image Velocimetry. Annals of Biomedical Engineering, 2011, 39, 2398-2416. | 1.3 | 13 |

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|---|---|---|---|
| 55 | Cellular-level near-wall unsteadiness of high-hematocrit erythrocyte flow using confocal Î¼PIV. Experiments in Fluids, 2011, 50, 887-904. | 1.1 | 33 |
| 56 | Interaction between alk1 and blood flow in the development of arteriovenous malformations. Development (Cambridge), 2011, 138, 1573-1582. | 1.2 | 184 |
| 57 | In Vivo Hemodynamic Performance of Wild-Type vs. Mutant Zebrafish Embryos Using High-Speed Confocal Micro-PIV. , 2010, , . | | 1 |
| 58 | Separation of Amino Acids by Aqueous Two-Phase Electrophoresis on the Micro-Pillar Chips. , 2006, , . | | 0 |