## Pouya Rezai

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

70
papers

758
citations

15
papers

9-index

79
ext. papers

937
ext. citations

4.2
avg, IF

L-index

#	Paper	IF	Citations
70	Electrotaxis of Caenorhabditis elegans in a microfluidic environment. <i>Lab on A Chip</i> , <b>2010</b> , 10, 220-6	7.2	109
69	Electrical sorting of Caenorhabditis elegans. <i>Lab on A Chip</i> , <b>2012</b> , 12, 1831-40	7.2	62
68	Microfluidic Approaches for Manipulating, Imaging, and Screening C. elegans. <i>Micromachines</i> , <b>2016</b> , 7,	3.3	43
67	Behavior of Caenorhabditis elegans in alternating electric field and its application to their localization and control. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 153702	3.4	28
66	A microfluidic phenotype analysis system reveals function of sensory and dopaminergic neuron signaling in C. elegans electrotactic swimming behavior. <i>Worm</i> , <b>2013</b> , 2, e24558		27
65	Plasma enhanced bonding of polydimethylsiloxane with parylene and its optimization. <i>Journal of Micromechanics and Microengineering</i> , <b>2011</b> , 21, 065024	2	26
64	3D Integrated Circuit Cooling with Microfluidics. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	25
63	Effect of pulse direct current signals on electrotactic movement of nematodes Caenorhabditis elegans and Caenorhabditis briggsae. <i>Biomicrofluidics</i> , <b>2011</b> , 5, 44116-441169	3.2	24
62	A review of materials selection for optimized efficiency in quantum dot sensitized solar cells: A simplified approach to reviewing literature data. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 73, 408-422	16.2	22
61	Microfluidic devices for embryonic and larval zebrafish studies. <i>Briefings in Functional Genomics</i> , <b>2019</b> , 18, 419-432	4.9	22
60	Effect of device geometry on droplet size in co-axial flow-focusing microfluidic droplet generation devices. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2019</b> , 570, 510-517	5.1	22
59	A microfluidic device for partial immobilization, chemical exposure and behavioural screening of zebrafish larvae. <i>Lab on A Chip</i> , <b>2017</b> , 17, 4048-4058	7.2	20
58	Microfluidic devices for imaging neurological response of Drosophila melanogaster larva to auditory stimulus. <i>Lab on A Chip</i> , <b>2015</b> , 15, 1116-22	7.2	20
57	Studying Parkinson's disease using Caenorhabditis elegans models in microfluidic devices. <i>Integrative Biology (United Kingdom)</i> , <b>2019</b> , 11, 186-207	3.7	17
56	Microfluidic Devices and Their Applications. Springer Handbooks, 2017, 487-536	1.3	16
55	Magneto-Hydrodynamic Fractionation (MHF) for continuous and sheathless sorting of high-concentration paramagnetic microparticles. <i>Biomedical Microdevices</i> , <b>2017</b> , 19, 39	3.7	15
54	A microfluidic device to study electrotaxis and dopaminergic system of zebrafish larvae. <i>Biomicrofluidics</i> , <b>2018</b> , 12, 014113	3.2	13

## (2018-2017)

53	Semi-Empirical Estimation of Dean Flow Velocity in Curved Microchannels. <i>Scientific Reports</i> , <b>2017</b> , 7, 13655	4.9	13	
52	Phenotypic chemical and mutant screening of zebrafish larvae using an on-demand response to electric stimulation. <i>Integrative Biology (United Kingdom)</i> , <b>2019</b> , 11, 373-383	3.7	13	
51	High-sensitivity interpretation of lateral flow immunoassays using thermophotonic lock-in imaging. <i>Sensors and Actuators A: Physical</i> , <b>2018</b> , 273, 189-196	3.9	12	
50	Oscillating dispersed-phase co-flow microfluidic droplet generation: Multi-droplet size effect. <i>Biomicrofluidics</i> , <b>2018</b> , 12, 034113	3.2	12	
49	A hybrid microfluidic device for on-demand orientation and multidirectional imaging of organs and neurons. <i>Biomicrofluidics</i> , <b>2016</b> , 10, 064111	3.2	12	
48	Characterization of microfluidic clamps for immobilizing and imaging of larva's central nervous system. <i>Biomicrofluidics</i> , <b>2017</b> , 11, 034113	3.2	11	
47	Microfluidic curved-channel centrifuge for solution exchange of target microparticles and their simultaneous separation from bacteria. <i>Soft Matter</i> , <b>2018</b> , 14, 5356-5363	3.6	11	
46	Microfluidic-based electrotaxis for on-demand quantitative analysis of Caenorhabditis elegans' locomotion. <i>Journal of Visualized Experiments</i> , <b>2013</b> , e50226	1.6	10	
45	An integrated hybrid microfluidic device for oviposition-based chemical screening of adult Drosophila melanogaster. <i>Lab on A Chip</i> , <b>2016</b> , 16, 709-19	7.2	9	
44	A microfluidic device for quantitative investigation of zebrafish larvae's rheotaxis. <i>Biomedical Microdevices</i> , <b>2017</b> , 19, 99	3.7	9	
43	Localized microinjection of intact Drosophila melanogaster larva to investigate the effect of serotonin on heart rate. <i>Lab on A Chip</i> , <b>2020</b> , 20, 343-355	7.2	9	
42	Cardiac screening of intact Drosophila melanogaster larvae under exposure to aqueous and gaseous toxins in a microfluidic device. <i>RSC Advances</i> , <b>2016</b> , 6, 65714-65724	3.7	9	
41	Multiplex Inertio-Magnetic Fractionation (MIMF) of magnetic and non-magnetic microparticles in a microfluidic device. <i>Microfluidics and Nanofluidics</i> , <b>2017</b> , 21, 1	2.8	8	
40	Fly-on-a-Chip: Microfluidics for Drosophila melanogaster Studies. <i>Integrative Biology (United Kingdom)</i> , <b>2019</b> , 11, 425-443	3.7	8	
39	Materials and methods for the microfabrication of microfluidic biomedical devices 2013, 3-62		7	
38	Poly(dimethylsiloxane)/Cu/Ag nanocomposites: Electrical, thermal, and mechanical properties. <i>Polymer Composites</i> , <b>2019</b> , 40, 4093-4101	3	6	
37	Agar-polydimethylsiloxane devices for quantitative investigation of oviposition behaviour of adult Drosophila melanogaster. <i>Biomicrofluidics</i> , <b>2015</b> , 9, 034112	3.2	6	
36	Fabrication and thermoresistive behavior characterization of three-dimensional silver-polydimethylsiloxane (Ag-PDMS) microbridges in a mini-channel. <i>Sensors and Actuators A: Physical</i> , <b>2018</b> , 277, 43-51	3.9	6	

35	Multi-phenotypic and bi-directional behavioral screening of zebrafish larvae. <i>Integrative Biology</i> (United Kingdom), <b>2020</b> , 12, 211-220	3.7	5
34	Silver nanowire-embedded PDMS with high electrical conductivity: nanowires synthesis, composite processing and electrical analysis. <i>Materials Today Chemistry</i> , <b>2021</b> , 21, 100496	6.2	5
33	Using Robotics and 3D Printing to Introduce Youth to Computer Science and Electromechanical Engineering <b>2017</b> ,		4
32	Semi-mobile C. elegans electrotaxis assay for movement screening and neural monitoring of Parkinson disease models. <i>Sensors and Actuators B: Chemical</i> , <b>2020</b> , 316, 128064	8.5	4
31	Parametric study of droplet size in an axisymmetric flow-focusing capillary device. <i>Chinese Journal of Chemical Engineering</i> , <b>2020</b> , 28, 1016-1022	3.2	4
30	Plasma enhanced bonding of polydimethylsiloxane (PDMS) with parylene <b>2011</b> ,		4
29	Parallel-Channel Electrotaxis and Neuron Screening of. <i>Micromachines</i> , <b>2020</b> , 11,	3.3	4
28	Dean flow velocity of viscoelastic fluids in curved microchannels. AIP Advances, 2020, 10, 085015	1.5	4
27	Miniaturized Sensors and Actuators for Biological Studies on Small Model Organisms of Disease. Energy, Environment, and Sustainability, <b>2018</b> , 199-225	0.8	3
26	Behavior of Caenorhabditis elegans in alternating electric field and its application to their localization and control <b>2010</b> ,		3
25	Open access tool and microfluidic devices for phenotypic quantification of heart function of intact fruit fly and zebrafish larvae. <i>Computers in Biology and Medicine</i> , <b>2021</b> , 132, 104314	7	3
24	Oscillating dispersed-phase co-flow microfluidic droplet generation: jet length reduction effect. <i>Soft Matter</i> , <b>2018</b> , 14, 9870-9876	3.6	3
23	The simple two-step polydimethylsiloxane transferring process for high aspect ratio microstructures. <i>Journal of Semiconductors</i> , <b>2018</b> , 39, 086001	2.3	3
22	Zebrafish larval response and habituation to electric signal: Effects of voltage, current and pulsation studied in a microfluidic device. <i>Sensors and Actuators A: Physical</i> , <b>2021</b> , 332, 113070	3.9	3
21	Electric egg-laying: a new approach for regulating egg-laying behaviour in a microchannel using electric field. <i>Lab on A Chip</i> , <b>2021</b> , 21, 821-834	7.2	3
20	Microfabrication of polymers for bioMEMS <b>2012</b> , 3-45		2
19	Inertia-magnetic particle sorting in microfluidic devices: a numerical parametric investigation. <i>Microfluidics and Nanofluidics</i> , <b>2019</b> , 23, 1	2.8	2
18	Highly conductive multi-walled carbon nanotube/polydimethylsiloxane (MWCNT/PDMS) nanocomposite for microfluidic applications. <i>Journal of Composite Materials</i> , <b>2021</b> , 55, 1799-1810	2.7	2

Materials and methods for microfabrication of microfluidic devices 2021, 1-78 2 17 Microfluidic electric parallel egg-laying assay and application to in-vivo toxicity screening of 16 10.2 microplastics using C. elegans. Science of the Total Environment, 2021, 783, 147055 Designing microfluidic devices for behavioral screening of multiple zebrafish larvae. Biotechnology 5.6 2 15 Journal, **2021**, e2100076 Triplex Inertia-Magneto-Elastic (TIME) sorting of microparticles in non-Newtonian fluids. Journal of 2.8 14 Magnetism and Magnetic Materials, 2020, 503, 166620 Lab-on-chips for manipulation of small-scale organisms to facilitate imaging of neurons and organs. Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE 13 0.9 1 Engineering in Medicine and Biology Society Annual International Conference, 2016, 2016, 5749-5752 Sheathless and high throughput sorting of paramagnetic microparticles in a magneto-hydrodynamic microfluidic device. Annual International Conference of the IEEE Engineering 12 0.9 in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Elasto-inertial microparticle focusing in straight microchannels: A numerical parametric 11 1 4.4 investigation. Physics of Fluids, 2021, 33, 092002 Conventional and microfluidic methods for airborne virus isolation and detection. Colloids and 6 10 Surfaces B: Biointerfaces, 2021, 206, 111962 Nanopore sensors for viral particle quantification: current progress and future prospects. 9 Ο 5.7 Bioengineered, 2021, 12, 9189-9215 High-speed label-free confocal microscopy of with near infrared spectrally encoded confocal 8 3.5 microscopy. Biomedical Optics Express, 2021, 12, 3607-3618 Integration of microfluidic sample preparation with PCR detection to investigate the effects of simultaneous DNA-Inhibitor separation and DNA solution exchange. Analytica Chimica Acta, 2021, 6.6 O 7 1160.338449 Microfluidic Fredkin gate: A novel control unit for integrated microfluidic systems. Microelectronic 2.5 Engineering, **2021**, 249, 111612 Low-Cost Resistive Microfluidic Salinity Sensor for High-Precision Detection of Drinking Water Salt О 3.9 Levels.. ACS Omega, 2022, 7, 15529-15539 Molecularly imprinted polymer (MIP) based core-shell microspheres for bacteria isolation. Polymer, 3.9 2022, 251, 124917 Microfluidic Systems to Study the Biology of Human Diseases and Identify Potential Therapeutic 3 Targets in Caenorhabditis elegans 2017, 581-608 Microfluidic devices to study the effect of electric fields on C. elegans and Danio rerio 2021, 341-361 Dopaminergic signaling regulates zebrafish larvae's response to electricity.. Biotechnology Journal, 5.6 1 2022, e2100561