Ye Ai

List of Publications by Citations

Source: https://exaly.com/author-pdf/1743245/ye-ai-publications-by-citations.pdf

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

98 3,758 58 35 h-index g-index citations papers 6.2 4,484 102 5.99 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
98	The Poisson distribution and beyond: methods for microfluidic droplet production and single cell encapsulation. <i>Lab on A Chip</i> , 2015 , 15, 3439-59	7.2	278
97	Active droplet sorting in microfluidics: a review. <i>Lab on A Chip</i> , 2017 , 17, 751-771	7. 2	177
96	Two dimensional atomically thin MoS2 nanosheets and their sensing applications. <i>Nanoscale</i> , 2015 , 7, 19358-76	7.7	174
95	Effects of Electroosmotic Flow on Ionic Current Rectification in Conical Nanopores. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 3883-3890	3.8	139
94	Separation of Escherichia coli bacteria from peripheral blood mononuclear cells using standing surface acoustic waves. <i>Analytical Chemistry</i> , 2013 , 85, 9126-34	7.8	131
93	Highly Localized Acoustic Streaming and Size-Selective Submicrometer Particle Concentration Using High Frequency Microscale Focused Acoustic Fields. <i>Analytical Chemistry</i> , 2016 , 88, 5513-22	7.8	118
92	Highly focused high-frequency travelling surface acoustic waves (SAW) for rapid single-particle sorting. <i>Lab on A Chip</i> , 2016 , 16, 471-9	7.2	113
91	Continuous micro-vortex-based nanoparticle manipulation via focused surface acoustic waves. <i>Lab on A Chip</i> , 2016 , 17, 91-103	7.2	111
90	Field effect regulation of DNA translocation through a nanopore. <i>Analytical Chemistry</i> , 2010 , 82, 8217-7	25 7.8	93
89	Acoustic tweezers via sub-time-of-flight regime surface acoustic waves. Science Advances, 2016, 2, e160	OOQ89	91
88	A novel single-layered MoS2 nanosheet based microfluidic biosensor for ultrasensitive detection of DNA. <i>Nanoscale</i> , 2015 , 7, 2245-9	7.7	88
87	Fluorescence activated cell sorting via a focused traveling surface acoustic beam. <i>Lab on A Chip</i> , 2017 , 17, 3176-3185	7.2	77
86	DC dielectrophoretic particle-particle interactions and their relative motions. <i>Journal of Colloid and Interface Science</i> , 2010 , 346, 448-54	9.3	72
85	Detachable Acoustofluidic System for Particle Separation via a Traveling Surface Acoustic Wave. <i>Analytical Chemistry</i> , 2016 , 88, 5316-23	7.8	71
84	DC electrokinetic particle transport in an L-shaped microchannel. <i>Langmuir</i> , 2010 , 26, 2937-44	4	65
83	Selective particle and cell capture in a continuous flow using micro-vortex acoustic streaming. <i>Lab on A Chip</i> , 2017 , 17, 1769-1777	7.2	61
82	Submicron Particle Focusing and Exosome Sorting by Wavy Microchannel Structures within Viscoelastic Fluids. <i>Analytical Chemistry</i> , 2019 , 91, 4577-4584	7.8	61

(2009-2011)

81	Electrokinetic particle translocation through a nanopore. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 4060-71	3.6	61	
80	Transient electrophoretic motion of a charged particle through a converging-diverging microchannel: effect of direct current-dielectrophoretic force. <i>Electrophoresis</i> , 2009 , 30, 2499-506	3.6	60	
79	Wall-induced lateral migration in particle electrophoresis through a rectangular microchannel. Journal of Colloid and Interface Science, 2010 , 347, 142-6	9.3	56	
78	Mechanical Properties Based Particle Separation via Traveling Surface Acoustic Wave. <i>Analytical Chemistry</i> , 2016 , 88, 11844-11851	7.8	54	
77	Direct numerical simulation of AC dielectrophoretic particle-particle interactive motions. <i>Journal of Colloid and Interface Science</i> , 2014 , 417, 72-9	9.3	54	
76	dc electrokinetic transport of cylindrical cells in straight microchannels. <i>Biomicrofluidics</i> , 2009 , 3, 44110	3.2	51	
75	pH-regulated ionic current rectification in conical nanopores functionalized with polyelectrolyte brushes. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 2465-74	3.6	50	
74	Droplet translocation by focused surface acoustic waves. <i>Microfluidics and Nanofluidics</i> , 2012 , 13, 715-7	22 .8	49	
73	Characterizing Deformability and Electrical Impedance of Cancer Cells in a Microfluidic Device. <i>Analytical Chemistry</i> , 2018 , 90, 912-919	7.8	49	
72	Self-Aligned Acoustofluidic Particle Focusing and Patterning in Microfluidic Channels from Channel-Based Acoustic Waveguides. <i>Physical Review Letters</i> , 2018 , 120, 074502	7.4	48	
71	On-Demand Lensless Single Cell Imaging Activated by Differential Resistive Pulse Sensing. <i>Analytical Chemistry</i> , 2015 , 87, 6516-9	7.8	43	
70	The patterning mechanism of carbon nanotubes using surface acoustic waves: the acoustic radiation effect or the dielectrophoretic effect. <i>Nanoscale</i> , 2015 , 7, 14047-54	7.7	42	
69	Dielectrophoretic choking phenomenon in a converging-diverging microchannel. <i>Biomicrofluidics</i> , 2010 , 4, 13201	3.2	42	
68	Ionic current rectification in a conical nanofluidic field effect transistor. <i>Sensors and Actuators B: Chemical</i> , 2011 , 157, 742-751	8.5	40	
67	A low-voltage nano-porous electroosmotic pump. <i>Journal of Colloid and Interface Science</i> , 2010 , 350, 465-70	9.3	40	
66	Field effect control of electrokinetic transport in micro/nanofluidics. <i>Sensors and Actuators B: Chemical</i> , 2012 , 161, 1150-1167	8.5	39	
65	Huygens-Fresnel Acoustic Interference and the Development of Robust Time-Averaged Patterns from Traveling Surface Acoustic Waves. <i>Physical Review Letters</i> , 2017 , 118, 154501	7.4	37	
64	Effect of linear surface-charge non-uniformities on the electrokinetic ionic-current rectification in conical nanopores. <i>Journal of Colloid and Interface Science</i> , 2009 , 329, 376-83	9.3	35	

63	Pressure-driven transport of particles through a converging-diverging microchannel. <i>Biomicrofluidics</i> , 2009 , 3, 22404	3.2	35
62	Virtual membrane for filtration of particles using surface acoustic waves (SAW). <i>Lab on A Chip</i> , 2016 , 16, 3515-23	7.2	33
61	Radiation dominated acoustophoresis driven by surface acoustic waves. <i>Journal of Colloid and Interface Science</i> , 2015 , 455, 203-11	9.3	32
60	Electrophoretic motion of a soft spherical particle in a nanopore. <i>Colloids and Surfaces B: Biointerfaces</i> , 2011 , 88, 165-74	6	32
59	A high-throughput dielectrophoresis-based cell electrofusion microfluidic device. <i>Electrophoresis</i> , 2011 , 32, 2488-95	3.6	31
58	Detachable Acoustophoretic System for Fluorescence-Activated Sorting at the Single-Droplet Level. <i>Analytical Chemistry</i> , 2019 , 91, 9970-9977	7.8	30
57	Exosome Purification and Analysis Using a Facile Microfluidic Hydrodynamic Trapping Device. <i>Analytical Chemistry</i> , 2020 , 92, 10733-10742	7.8	30
56	Sheathless inertial cell focusing and sorting with serial reverse wavy channel structures. <i>Microsystems and Nanoengineering</i> , 2018 , 4, 5	7.7	30
55	Self-Aligned Interdigitated Transducers for Acoustofluidics. <i>Micromachines</i> , 2016 , 7,	3.3	30
54	A portable image-based cytometer for rapid malaria detection and quantification. <i>PLoS ONE</i> , 2017 , 12, e0179161	3.7	28
53	Flow-rate-insensitive deterministic particle sorting using a combination of travelling and standing surface acoustic waves. <i>Microfluidics and Nanofluidics</i> , 2016 , 20, 1	2.8	28
52	Electrokinetic particle translocation through a nanopore containing a floating electrode. <i>Electrophoresis</i> , 2011 , 32, 1864-74	3.6	27
51	DNA single-base mismatch study using graphene oxide nanosheets-based fluorometric biosensors. <i>Analytical Chemistry</i> , 2015 , 87, 9132-6	7.8	26
50	Polarization Effect of a Dielectric Membrane on the Ionic Current Rectification in a Conical Nanopore. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 24951-24959	3.8	26
49	Biophysical phenotyping of single cells using a differential multiconstriction microfluidic device with self-aligned 3D electrodes. <i>Biosensors and Bioelectronics</i> , 2019 , 133, 16-23	11.8	25
48	Direct numerical simulation of electrokinetic translocation of a cylindrical particle through a nanopore using a Poisson-Boltzmann approach. <i>Electrophoresis</i> , 2011 , 32, 996-1005	3.6	25
47	Electrokinetic Particle Transport in Micro-/Nanofluidics		25
46	Electrokinetic motion of a deformable particle: dielectrophoretic effect. <i>Electrophoresis</i> , 2011 , 32, 228	2- <u>3</u> .6	23

(2020-2020)

45	Dynamically tunable elasto-inertial particle focusing and sorting in microfluidics. <i>Lab on A Chip</i> , 2020 , 20, 568-581	7.2	23	
44	Microfluidic impedance cytometry device with N-shaped electrodes for lateral position measurement of single cells/particles. <i>Lab on A Chip</i> , 2019 , 19, 3609-3617	7.2	21	
43	Hybrid microfluidic sorting of rare cells based on high throughput inertial focusing and high accuracy acoustic manipulation <i>RSC Advances</i> , 2019 , 9, 31186-31195	3.7	21	
42	Simple and low cost integration of highly conductive three-dimensional electrodes in microfluidic devices. <i>Biomedical Microdevices</i> , 2015 , 17, 4	3.7	20	
41	A MoS2MWCNT based fluorometric nanosensor for exosome detection and quantification. <i>Nanoscale Advances</i> , 2019 , 1, 2866-2872	5.1	20	
40	Sheathless Acoustic Fluorescence Activated Cell Sorting (aFACS) with High Cell Viability. <i>Analytical Chemistry</i> , 2019 , 91, 15425-15435	7.8	20	
39	A Compact Optofluidic Cytometer for Detection and Enumeration of Tumor Cells. <i>Journal of Lightwave Technology</i> , 2015 , 33, 3433-3438	4	19	
38	A deep learning approach for designed diffraction-based acoustic patterning in microchannels. <i>Scientific Reports</i> , 2020 , 10, 8745	4.9	19	
37	Massively Multiplexed Submicron Particle Patterning in Acoustically Driven Oscillating Nanocavities. <i>Small</i> , 2020 , 16, e2000462	11	17	
36	Diffraction-based acoustic manipulation in microchannels enables continuous particle and bacteria focusing. <i>Lab on A Chip</i> , 2020 , 20, 2674-2688	7.2	17	
35	A Microfluidic DNA Sensor Based on Three-Dimensional (3D) Hierarchical MoS//Carbon Nanotube Nanocomposites. <i>Sensors</i> , 2016 , 16,	3.8	17	
34	Differential microfluidic sensor on printed circuit board for biological cells analysis. <i>Electrophoresis</i> , 2015 , 36, 1854-8	3.6	16	
33	Single-actuator Bandpass Microparticle Filtration via Traveling Surface Acoustic Waves. <i>Colloids and Interface Science Communications</i> , 2017 , 16, 6-9	5.4	15	
32	Portable resistive pulse-activated lens-free cell imaging system. <i>RSC Advances</i> , 2014 , 4, 56342-56345	3.7	15	
31	Acoustic fields and microfluidic patterning around embedded micro-structures subject to surface acoustic waves. <i>Soft Matter</i> , 2019 , 15, 8691-8705	3.6	15	
30	Real time size-dependent particle segregation and quantitative detection in a surface acoustic wave-photoacoustic integrated microfluidic system. <i>Sensors and Actuators B: Chemical</i> , 2017 , 252, 568-	576 ⁵	14	
29	Ultrasonic microstreaming for complex-trajectory transport and rotation of single particles and cells. <i>Lab on A Chip</i> , 2020 , 20, 2947-2953	7.2	14	
28	Submicron Particle Concentration and Patterning with Ultralow Frequency Acoustic Vibration. <i>Analytical Chemistry</i> , 2020 , 92, 12795-12800	7.8	14	

27	Label-Free Multivariate Biophysical Phenotyping-Activated Acoustic Sorting at the Single-Cell Level. <i>Analytical Chemistry</i> , 2021 , 93, 4108-4117	7.8	13
26	Numerical and experimental characterization of solid-state micropore-based cytometer for detection and enumeration of biological cells. <i>Electrophoresis</i> , 2015 , 36, 737-43	3.6	11
25	Single-Cell Stretching in Viscoelastic Fluids with Electronically Triggered Imaging for Cellular Mechanical Phenotyping. <i>Analytical Chemistry</i> , 2021 , 93, 4567-4575	7.8	11
24	Dual characterization of biological cells by optofluidic microscope and resistive pulse sensor. <i>Electrophoresis</i> , 2015 , 36, 420-3	3.6	10
23	Contact configuration modification at carbon nanotube-metal interface during nanowelding. <i>Journal of Applied Physics</i> , 2009 , 106, 124308	2.5	10
22	Volumetric measurement of human red blood cells by MOSFET-based microfluidic gate. <i>Electrophoresis</i> , 2015 , 36, 1862-5	3.6	9
21	Slowness curve surface acoustic wave transducers for optimized acoustic streaming <i>RSC Advances</i> , 2020 , 10, 11582-11589	3.7	9
20	A rapid and meshless analytical model of acoustofluidic pressure fields for waveguide design. <i>Biomicrofluidics</i> , 2018 , 12, 024104	3.2	9
19	A New Accurate and Fast Homography Computation Algorithm for Sports and Traffic Video Analysis. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2018 , 28, 2993-3006	6.4	8
18	Acoustic Vibration-Induced Actuation of Multiple Microrotors in Microfluidics. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000323	6.8	8
17	Submicron-precision particle characterization in microfluidic impedance cytometry with double differential electrodes. <i>Lab on A Chip</i> , 2021 , 21, 2869-2880	7.2	8
16	Deterministic Sorting of Submicrometer Particles and Extracellular Vesicles Using a Combined Electric and Acoustic Field. <i>Nano Letters</i> , 2021 , 21, 6835-6842	11.5	8
15	Enhanced Molecular Diagnosis of Bloodstream Infection with Size-Based Inertial Sorting at Submicron Resolution. <i>Analytical Chemistry</i> , 2020 , 92, 15579-15586	7.8	7
14	Multi-frequency single cell electrical impedance measurement for label-free cell viability analysis. <i>Analyst, The</i> , 2021 , 146, 1848-1858	5	7
13	CMOS Compatible Transient Resistive Memory with Prolonged Lifetime. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900217	6.8	4
12	Acoustic manipulation of breathing MOFs particles for self-folding composite films preparation. Sensors and Actuators A: Physical, 2020, 315, 112288	3.9	4
11	An Optimized Quantization Constraints Set for Image Restoration and Its GPU Implementation. <i>IEEE Transactions on Image Processing</i> , 2020 ,	8.7	3
10	Label-Free Cell Viability Assay and Enrichment of Cryopreserved Cells Using Microfluidic Cytometry and On-Demand Sorting. <i>Advanced Materials Technologies</i> ,2100906	6.8	3

LIST OF PUBLICATIONS

9	Sheathless and high-throughput elasto-inertial bacterial sorting for enhancing molecular diagnosis of bloodstream infection. <i>Lab on A Chip</i> , 2021 , 21, 2163-2177	7.2	3
8	Accurate profiling of blood components in microliter with position-insensitive coplanar electrodes-based cytometry. <i>Sensors and Actuators B: Chemical</i> , 2022 , 367, 132068	8.5	3
7	Physical properties-based microparticle sorting at submicron resolution using a tunable acoustofluidic device. <i>Sensors and Actuators B: Chemical</i> , 2021 , 344, 130203	8.5	2
6	Boron detection and quantification based on the absorption spectra of pyridoxine and its boron complex. <i>Environmental Chemistry</i> , 2017 , 14, 135	3.2	1
5	Separation of biological cells in a microfluidic device using surface acoustic waves (SAWs) 2014,		1
4	Sub-Micron Particle Trapping: Massively Multiplexed Submicron Particle Patterning in Acoustically Driven Oscillating Nanocavities (Small 17/2020). <i>Small</i> , 2020 , 16, 2070095	11	O
3	A low-cost and high-throughput benchtop cell sorter for isolating white blood cells from whole blood. <i>Electrophoresis</i> , 2021 , 42, 2281-2292	3.6	О

Field Effect Control of Ion, Fluid, and Particle Transport in Micro/Nanofluidics2688-2704