Ye Tao

List of Publications by Year
in descending order

72 papers	1,755 citations	236925 25 h-index	345221 36 g-index
75 all docs	75 docs citations	75 times ranked	1471 citing authors

#	Article	IF	Citations
1	Induced-charge electroosmotic trapping of particles. Lab on A Chip, 2015, 15, 2181-2191.	6.0	82
2	High-Throughput Separation, Trapping, and Manipulation of Single Cells and Particles by Combined Dielectrophoresis at a Bipolar Electrode Array. Analytical Chemistry, 2018, 90, 11461-11469.	6.5	76
3	A Simplified Microfluidic Device for Particle Separation with Two Consecutive Steps: Induced Charge Electro-osmotic Prefocusing and Dielectrophoretic Separation. Analytical Chemistry, 2017, 89, 9583-9592.	6.5	72
4	Continuous microfluidic mixing and the highly controlled nanoparticle synthesis using direct current-induced thermal buoyancy convection. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	58
5	Rapid, targeted and culture-free viral infectivity assay in drop-based microfluidics. Lab on A Chip, 2015, 15, 3934-3940.	6.0	53
6	A novel micromixer based on the alternating current-flow field effect transistor. Lab on A Chip, 2017, 17, 186-197.	6.0	53
7	AC Electrothermal Circulatory Pumping Chip for Cell Culture. ACS Applied Materials & Interfaces, 2015, 7, 26792-26801.	8.0	52
8	Electrically controlled rapid release of actives encapsulated in double-emulsion droplets. Lab on A Chip, 2018, 18, 1121-1129.	6.0	47
9	Scaled particle focusing in a microfluidic device with asymmetric electrodes utilizing induced-charge electroosmosis. Lab on A Chip, 2016, 16, 2803-2812.	6.0	46
10	Evolution on the Biophysical Fitness Landscape of an RNA Virus. Molecular Biology and Evolution, 2018, 35, 2390-2400.	8.9	45
11	Large-Scale Single Particle and Cell Trapping based on Rotating Electric Field Induced-Charge Electroosmosis. Analytical Chemistry, 2016, 88, 11791-11798.	6.5	44
12	Control of two-phase flow in microfluidics using out-of-phase electroconvective streaming. Physics of Fluids, 2017, 29, .	4.0	44
13	A universal design of field-effect-tunable microfluidic ion diode based on a gating cation-exchange nanoporous membrane. Physics of Fluids, 2017, 29, .	4.0	42
14	Electrocoalescence of paired droplets encapsulated in double-emulsion drops. Lab on A Chip, 2016, 16, 4313-4318.	6.0	37
15	Continuous Particle Trapping, Switching, and Sorting Utilizing a Combination of Dielectrophoresis and Alternating Current Electrothermal Flow. Analytical Chemistry, 2019, 91, 5729-5738.	6.5	37
16	In-plane microvortices micromixer-based AC electrothermal for testing drug induced death of tumor cells. Biomicrofluidics, 2016, 10, 064102.	2.4	35
17	Trapping and chaining self-assembly of colloidal polystyrene particles over a floating electrode by using combined induced-charge electroosmosis and attractive dipoleâ€“dipole interactions. Soft Matter, 2015, 11, 8105-8112.	2.7	33
18	On AC-Field-Induced Nonlinear Electroosmosis next to the Sharp Corner-Field-Singularity of Leaky Dielectric Blocks and Its Application in on-Chip Micro-Mixing. Micromachines, 2018, 9, 102.	2.9	33

#	Article	IF	Citations
19	Isolation and Analysis of Rare Norovirus Recombinants from Coinfected Mice Using Drop-Based Microfluidics. Journal of Virology, 2015, 89, 7722-7734.	3.4	32
20	Dielectrophoretic separation with a floating-electrode array embedded in microfabricated fluidic networks. Physics of Fluids, 2018, 30, .	4.0	32
21	On utilizing alternating current-flow field effect transistor for flexibly manipulating particles in microfluidics and nanofluidics. Biomicrofluidics, 2016, 10, 034105.	2.4	30
22	Artifactâ€Free Quantification and Sequencing of Rare Recombinant Viruses by Using Dropâ€Based Microfluidics. ChemBioChem, 2015, 16, 2167-2171.	2.6	28
23	A high-throughput drop microfluidic system for virus culture and analysis. Journal of Virological Methods, 2015, 213, 111-117.	2.1	28
24	A dual-core double emulsion platform for osmolarity-controlled microreactor triggered by coalescence of encapsulated droplets. Biomicrofluidics, 2016, 10, 034111.	2.4	28
25	Induced-charge electrokinetics in rotating electric fields: A linear asymptotic analysis. Physics of Fluids, 2018, 30, .	4.0	28
26	A microscopic physical description of electrothermalâ€induced flow for control of ion current transport in microfluidics interfacing nanofluidics. Electrophoresis, 2019, 40, 2683-2698.	2.4	28
27	Label-free single-cell protein quantification using a drop-based mix-and-read system. Scientific Reports, 2015, 5, 12756.	3.3	26
28	Enhanced particle trapping performance of induced charge electroosmosis. Electrophoresis, 2016, 37, 1326-1336.	2.4	25
29	Fluid pumping and cells separation by DC-biased traveling wave electroosmosis and dielectrophoresis. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	24
30	Tri-fluid mixing in a microchannel for nanoparticle synthesis. Lab on A Chip, 2019, 19, 2936-2946.	6.0	24
31	Continuousâ€Flow Nanoparticle Trapping Driven by Hybrid Electrokinetics in Microfluidics. Electrophoresis, 2021, 42, 939-949.	2.4	24
32	Particle rotational trapping on a floating electrode by rotating induced-charge electroosmosis. Biomicrofluidics, 2016, 10, 054103.	2.4	22
33	Self-powered AC electrokinetic microfluidic system based on triboelectric nanogenerator. Nano Energy, 2021, 89, 106451.	16.0	22
34	Multiple frequency electrothermal induced flow: theory and microfluidic applications. Journal Physics D: Applied Physics, 2020, 53, 175304.	2.8	21
35	Fluid pumping by liquid metal droplet utilizing ac electric field. Physical Review E, 2022, 105, 025102.	2.1	21
36	Efficient particle and droplet manipulation utilizing the combined thermal buoyancy convection and temperature-enhanced rotating induced-charge electroosmotic flow. Analytica Chimica Acta, 2020, 1096, 108-119.	5.4	20

#	Article	IF	Citations
37	Three-Fluid Sequential Micromixing-Assisted Nanoparticle Synthesis Utilizing Alternating Current Electrothermal Flow. Industrial & Engineering Chemistry Research, 2020, 59, 12514-12524.	3.7	20
38	Fluid Flow and Mixing Induced by AC Continuous Electrowetting of Liquid Metal Droplet. Micromachines, 2017, 8, 119.	2.9	19
39	Flexible Continuous Particle Beam Switching via External-Field-Reconfigurable Asymmetric Induced-Charge Electroosmosis. Analytical Chemistry, 2018, 90, 11376-11384.	6.5	19
40	A simple microfluidic method for one-step encapsulation of reagents with varying concentrations in double emulsion drops for nanoliter-scale reactions and analyses. Analytical Methods, 2017, 9, 2511-2516.	2.7	18
41	Efficient Micro/Nanoparticle Concentration using Direct Current-Induced Thermal Buoyancy Convection for Multiple Liquid Media. Analytical Chemistry, 2019, 91, 4457-4465.	6.5	18
42	Flexible particle flowâ€focusing in microchannel driven by dropletâ€directed inducedâ€charge electroosmosis. Electrophoresis, 2018, 39, 597-607.	2.4	17
43	Simulation analysis of rectifying microfluidic mixing with fieldâ€effectâ€tunable electrothermal induced flow. Electrophoresis, 2018, 39, 779-793.	2.4	16
44	Controllable rotating behavior of individual dielectric microrod in a rotating electric field. Electrophoresis, 2017, 38, 1427-1433.	2.4	15
45	On controlling the flow behavior driven by induction electrohydrodynamics in microfluidic channels. Electrophoresis, 2017, 38, 983-995.	2.4	15
46	Osmolarity-controlled swelling behaviors of dual-cored double-emulsion drops. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	15
47	Simulation Analysis of Improving Microfluidic Heterogeneous Immunoassay Using Induced Charge Electroosmosis on a Floating Gate. Micromachines, 2017, 8, 212.	2.9	14
48	A High-Throughput Electrokinetic Micromixer via AC Field-Effect Nonlinear Electroosmosis Control in 3D Electrode Configurations. Micromachines, 2018, 9, 432.	2.9	14
49	Combined alternating current electrothermal and dielectrophoresis-induced tunable patterning to actuate on-chip microreactions and switching at a floating electrode. Sensors and Actuators B: Chemical, 2020, 304, 127397.	7.8	14
50	Pumping of electrolyte with mobile liquid metal droplets driven by continuous electrowetting: A fullâ€scaled simulation study considering surfaceâ€coupled electrocapillary twoâ€phase flow. Electrophoresis, 2021, 42, 950-966.	2.4	14
51	A mix-and-read drop-based in vitro two-hybrid method for screening high-affinity peptide binders. Scientific Reports, 2016, 6, 22575.	3.3	12
52	On traveling-wave field-effect flow control for simultaneous induced-charge electroosmotic pumping and mixing in microfluidics: physical perspectives and theoretical analysis. Journal of Micromechanics and Microengineering, 2018, 28, 055004.	2.6	12
53	Small universal mechanical module driven by a liquid metal droplet. Lab on A Chip, 2021, 21, 2771-2780.	6.0	11
54	DC electric field-driven heartbeat phenomenon of gallium-based liquid metal on a floating electrode. Soft Matter, 2022, 18, 609-616.	2.7	11

#	Article	IF	Citations
55	Electrode Cooling Effect on Out-Of-Phase Electrothermal Streaming in Rotating Electric Fields. Micromachines, 2017, 8, 327.	2.9	10
56	Microwire formation based on dielectrophoresis of electroless gold plated polystyrene microspheres. Chinese Physics B, 2011, 20, 057701.	1.4	9
57	Continuous separation of multiple size microparticles using alternating current dielectrophoresis in microfluidic device with acupuncture needle electrodes. Chinese Journal of Mechanical Engineering (English Edition), 2016, 29, 325-331.	3.7	9
58	On Developing Field-Effect-Tunable Nanofluidic Ion Diodes with Bipolar, Induced-Charge Electrokinetics. Micromachines, 2018, 9, 179.	2.9	9
59	A micro-needle induced strategy for preparation of monodisperse liquid metal droplets in glass capillary microfluidics. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	9
60	Buoyancy-Free Janus Microcylinders as Mobile Microelectrode Arrays for Continuous Microfluidic Biomolecule Collection within a Wide Frequency Range: A Numerical Simulation Study. Micromachines, 2020, 11, 289.	2.9	9
61	A tripodal wheeled mobile robot driven by a liquid metal motor. Lab on A Chip, 2022, 22, 1943-1950.	6.0	9
62	Liquid metal droplet-enabled electrocapillary flow in biased alternating electric fields: a theoretical analysis from the perspective of induced-charge electrokinetics. Journal of Micromechanics and Microengineering, 2020, 30, 085007.	2.6	8
63	A visual portable microfluidic experimental device with multiple electric field regulation functions. Lab on A Chip, 2022, 22, 1556-1564.	6.0	8
64	Desktop-level small automatic guided vehicle driven by a liquid metal droplet. Lab on A Chip, 2022, 22, 826-835.	6.0	7
65	Dielectrophoretic medium exchange around droplets for on-chip fabrication of layer-by-layer microcapsules. Lab on A Chip, 2021, 21, 3352-3360.	6.0	6
66	Flexible online in-droplet cell/synthetic particle concentration utilizing alternating current electrothermal-flow field-effect transistor. Lab on A Chip, 2021, 21, 1987-1997.	6.0	6
67	A multifunctional resealable perfusion chip for cell culture and tissue engineering. RSC Advances, 2016, 6, 27183-27190.	3.6	5
68	Manipulation of gold coated microspheres using electrorotation. Science China Technological Sciences, 2011, 54, 643-649.	4.0	4
69	Multifrequency Induced-Charge Electroosmosis. Micromachines, 2019, 10, 447.	2.9	4
70	Numerical characterization of interâ€core coalescence by AC dielectrophoresis in doubleâ€emulsion droplets. Electrophoresis, 2022, 43, 2141-2155.	2.4	4
71	An Experimental Study of 3D Electrode-Facilitated Particle Traffic Flow-Focusing Driven by Induced-Charge Electroosmosis. Micromachines, 2019, 10, 135.	2.9	3
72	DNAzyme-powered nucleic acid release from solid supports. Chemical Communications, 2020, 56, 647-650.	4.1	3