Yongxin Song

List of Publications by Year
in descending order

102 papers	4,155 citations	147726 31 h-index	118793 62 g-index
102 all docs	102 docs citations	102 times ranked	3608 citing authors

#	Article	IF	Citations
1	Fluid rheological effects on streaming dielectrophoresis in a postâ€array microchannel. Electrophoresis, 2022, 43, 717-723.	1.3	3
2	Insights into the impact of polydopamine modification on permeability and anti-fouling performance of forward osmosis membrane. Chemosphere, 2022, 291, 132744.	4.2	10
3	Smartphone based microfluidic lab-on-chip device for real-time detection, counting and sizing of living algae. Measurement: Journal of the International Measurement Confederation, 2022, 187, 110304.	2.5	22
4	Tunable particle/cell separation across aqueous two-phase system interface by electric pulse in microfluidics. Journal of Colloid and Interface Science, 2022, 612, 23-34.	5.0	14
5	Conductivity-difference-enhanced DC dielectrophoretic particle separation in a microfluidic chip. Analyst, The, 2022, 147, 1106-1116.	1.7	8
6	Near-infrared surface plasmon resonance sensor with a graphene-gold surface architecture for ultra-sensitive biodetection. Analytica Chimica Acta, 2022, 1205, 339692.	2.6	10
7	A Fiber-Optic Surface Plasmon Resonance Sensor for Bio-Detection in Visible to Near-Infrared Images. Biosensors, 2022, 12, 9.	2.3	7
8	Effects of sodium hypochlorite treatment on the chlorophyll fluorescence in photosystem II of microalgae. Science of the Total Environment, 2022, 833, 155192.	3.9	14
9	Living algae detection with a PDMS-liquid chlorophyll fluorescence microfluidic chip filter and a smartphone. Analyst, The, 2022, 147, 3723-3731.	1.7	1
10	Sizeâ€dependent electrophoretic motion of polystyrene particles at polyethylene glycolâ€“dextran interfaces. Electrophoresis, 2022, 43, 2112-2119.	1.3	3
11	In-situ silica nanoparticle assembly technique to develop an omniphobic membrane for durable membrane distillation. Desalination, 2021, 499, 114832.	4.0	53
12	Joule heatingâ€enabled electrothermal enrichment of nanoparticles in insulatorâ€based dielectrophoretic microdevices. Electrophoresis, 2021, 42, 626-634.	1.3	9
13	Simultaneous and continuous particle separation and counting <i>via</i> localized DC-dielectrophoresis in a microfluidic chip. RSC Advances, 2021, 11, 3827-3833.	1.7	6
14	Constriction length dependent instabilities in the microfluidic entry flow of polymer solutions. Soft Matter, 2021, 17, 9198-9209.	1.2	9
15	Probing zeta potential of glass in electrolyte solutions by colloidal probe technique. , 2021, , .		0
16	Insulatorâ€based dielectrophoretic focusing and trapping of particles in nonâ€Newtonian fluids. Electrophoresis, 2021, 42, 2154-2161.	1.3	15
17	Ionic Diode Based on an Asymmetricâ€Shaped Carbon Black Nanoparticle Membrane. Advanced Functional Materials, 2021, 31, 2104341.	7.8	15
18	Flow of Non-Newtonian Fluids in a Single-Cavity Microchannel. Micromachines, 2021, 12, 836.	1.4	11

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19	A simple, flexible, and porous polypyrroleâ€wax gourd evaporator with excellent light absorption for efficient solar steam generation. International Journal of Energy Research, 2021, 45, 21476-21486.	2.2	14
20	Interplay of induced charge electroosmosis and electrothermal flow in insulator-based dielectrophoresis. Physical Review Fluids, 2021, 6, .	1.0	3
21	Novel strategy to enhance the desalination performance of flow-electrode capacitive deionization process via the assistance of electro-catalytic water splitting. Separation and Purification Technology, 2021, 279, 119753.	3.9	6
22	Electrokinetic detection and separation of living algae in a microfluidic chip: implication for shipâ€™s ballast water analysis. Environmental Science and Pollution Research, 2021, 28, 22853-22863.	2.7	8
23	A Novel Dielectric Barrier Discharge (DBD) Reactor with Streamer and Glow Corona Discharge for Improved Ozone Generation at Atmospheric Pressure. Micromachines, 2021, 12, 1287.	1.4	6
24	AC dielectrophoretic deformable particleâ€particle interactions and their relative motions. Electrophoresis, 2020, 41, 952-958.	1.3	20
25	Zeta potentials of PDMS surfaces modified with poly(ethylene glycol) by physisorption. Electrophoresis, 2020, 41, 761-768.	1.3	13
26	Recent advances in dielectrophoresisâ€based cell viability assessment. Electrophoresis, 2020, 41, 917-932.	1.3	22
27	Vortex trapping and separation of particles in shear thinning fluids. Applied Physics Letters, 2020, 116, .	1.5	19
28	Detecting zeta potential of polydimethylsiloxane (PDMS) in electrolyte solutions with atomic force microscope. Journal of Colloid and Interface Science, 2020, 578, 116-123.	5.0	13
29	Nanoparticle and microorganism detection with a side-micron-orifice-based resistive pulse sensor. Analyst, The, 2020, 145, 5466-5474.	1.7	9
30	Electrokineticâ€vortex formation near a twoâ€part cylinder with sameâ€sign zeta potentials in a straight microchannel. Electrophoresis, 2020, 41, 793-801.	1.3	10
31	Quantitative viability detection for a single microalgae cell by two-level photoexcitation. Analyst, The, 2020, 145, 3931-3938.	1.7	3
32	Revisit of wallâ€induced lateral migration in particle electrophoresis through a straight rectangular microchannel: Effects of particle zeta potential. Electrophoresis, 2019, 40, 955-960.	1.3	8
33	Vortex generation in electroosmotic flow in a straight polydimethylsiloxane microchannel with different polybrene modified-to-unmodified section length ratios. Microfluidics and Nanofluidics, 2019, 23, 1.	1.0	11
34	Continuous Cell Characterization and Separation by Microfluidic Alternating Current Dielectrophoresis. Analytical Chemistry, 2019, 91, 6304-6314.	3.2	62
35	Coalescence of a Water Drop with an Airâ€“Liquid Interface: Electric Current Generation and Critical Micelle Concentration (CMC) Sensing Application. ACS Applied Materials & Interfaces, 2019, 11, 16981-16990.	4.0	6
36	Thin liquid film between a floating oil droplet and a glass slide under DC electric field. Journal of Colloid and Interface Science, 2019, 534, 262-269.	5.0	5

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37	Electrokinetic motion of a micro oil droplet under a glass slide. Electrophoresis, 2019, 40, 1034-1040.	1.3	3
38	Automatic detecting and counting magnetic beadsâ€labeled target cells from a suspension in a microfluidic chip. Electrophoresis, 2019, 40, 897-905.	1.3	13
39	A novel microfluidic resistive pulse sensor with multiple voltage input channels and a side sensing gate for particle and cell detection. Analytica Chimica Acta, 2019, 1052, 113-123.	2.6	28
40	Electrokinetic Motion of an Oil Droplet Attached to a Waterâ€“Air Interface from Below. Journal of Physical Chemistry B, 2018, 122, 1738-1746.	1.2	8
41	Detection of viability of micro-algae cells by optofluidic hologram pattern. Biomicrofluidics, 2018, 12, 024111.	1.2	8
42	Manipulation and separation of oil droplets by using asymmetric nano-orifice induced DC dielectrophoretic method. Journal of Colloid and Interface Science, 2018, 512, 389-397.	5.0	21
43	Electrokinetic motion of a spherical micro particle at an oilâˆ'water interface in microchannel. Electrophoresis, 2018, 39, 807-815.	1.3	14
44	Electrokinetic motion of a spherical polystyrene particle at a liquid-fluid interface. Journal of Colloid and Interface Science, 2018, 509, 432-439.	5.0	16
45	Electrokinetic motion of a submerged oil droplet near an airâ€“water interface. Chemical Engineering Science, 2018, 192, 264-272.	1.9	13
46	An integrated microfluidic device for rapid and high-sensitivity analysis of circulating tumor cells. Scientific Reports, 2017, 7, 42612.	1.6	52
47	Induced charge effects on electrokinetic entry flow. Physics of Fluids, 2017, 29, .	1.6	35
48	Improving particle detection sensitivity of a microfluidic resistive pulse sensor by a novel electrokinetic flow focusing method. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	13
49	Surface-conduction enhanced dielectrophoretic-like particle migration in electric-field driven fluid flow through a straight rectangular microchannel. Physics of Fluids, 2017, 29, .	1.6	15
50	Electrokinetically driven continuous-flow enrichment of colloidal particles by Joule heating induced temperature gradient focusing in a convergent-divergent microfluidic structure. Scientific Reports, 2017, 7, 10803.	1.6	4
51	Joule heating effects on electroosmotic entry flow. Electrophoresis, 2017, 38, 572-579.	1.3	41
52	Chargeâ€based separation of particles and cells with similar sizes via the wallâ€induced electrical lift. Electrophoresis, 2017, 38, 320-326.	1.3	10
53	Automatic and Selective Single Cell Manipulation in a Pressure-Driven Microfluidic Lab-On-Chip Device. Micromachines, 2017, 8, 172.	1.4	7
54	Microfluidic and Nanofluidic Resistive Pulse Sensing: A Review. Micromachines, 2017, 8, 204.	1.4	52

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55	Zeta potentials of polydimethylsiloxane surfaces modified by polybrene of different concentrations. Electrophoresis, 2016, 37, 567-572.	1.3	11
56	A new hand-held microfluidic cytometer for evaluating irradiation damage by analysis of the damaged cells distribution. Scientific Reports, 2016, 6, 23165.	1.6	10
57	Sheathless electrokinetic particle separation in a bifurcating microchannel. Biomicrofluidics, 2016, 10, 054104.	1.2	15
58	Detection of activity of single microalgae cells in a new microfluidic cell capturing chip. Measurement Science and Technology, 2016, 27, 125701.	1.4	11
59	Separation of nanoparticles by a nano-orifice based DC-dielectrophoresis method in a pressure-driven flow. Nanoscale, 2016, 8, 18945-18955.	2.8	34
60	Focusing particles by induced charge electrokinetic flow in a microchannel. Electrophoresis, 2016, 37, 666-675.	1.3	21
61	Deformation and Interaction of Droplet Pairs in a Microchannel Under ac Electric Fields. Physical Review Applied, 2015, 4, .	1.5	19
62	Electrophoretic mobility of oil droplets in electrolyte and surfactant solutions. Electrophoresis, 2015, 36, 2489-2497.	1.3	26
63	Electrokinetic preconcentration of particles and cells in microfluidic reservoirs. Analyst, The, 2015, 140, 2869-2875.	1.7	33
64	Highâ€throughput and sensitive particle counting by a novel microfluidic differential resistive pulse sensor with multidetecting channels and a common reference channel. Electrophoresis, 2015, 36, 495-501.	1.3	18
65	An induction current method for determining the critical micelle concentration and the polarity of surfactants. Colloid and Polymer Science, 2015, 293, 1525-1534.	1.0	15
66	Induced-charge electrokinetics in a conducting nanochannel with broken geometric symmetry: Towards a flexible control of ionic transport. Physics of Fluids, 2015, 27, .	1.6	12
67	Sizeâ€based cell sorting with a resistive pulse sensor and an electromagnetic pump in a microfluidic chip. Electrophoresis, 2015, 36, 398-404.	1.3	15
68	Detection of size spectrum of microalgae cells in an integrated underwater microfluidic device. Journal of Experimental Marine Biology and Ecology, 2015, 473, 129-137.	0.7	26
69	Simultaneous diamagnetic and magnetic particle trapping in ferrofluid microflows via a single permanent magnet. Biomicrofluidics, 2015, 9, 044102.	1.2	32
70	A novel method for measuring zeta potentials of solidâ€“liquid interfaces. Analytica Chimica Acta, 2015, 853, 689-695.	2.6	11
71	Capacitive detection of living microalgae in a microfluidic chip. Sensors and Actuators B: Chemical, 2014, 194, 164-172.	4.0	27
72	Effect of induced surface charge of metal particles on particle sizing by resistive pulse sensing technique. Journal of Colloid and Interface Science, 2014, 423, 20-24.	5.0	6

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73	Quantitative evaluation of radiation dose by Î³-H2AX on a microfluidic chip in a miniature fluorescence cytometer. Radiation Measurements, 2014, 62, 71-77.	0.7	11
74	An induced current method for measuring zeta potential of electrolyte solutionâ€“air interface. Journal of Colloid and Interface Science, 2014, 416, 101-104.	5.0	11
75	Experimental validation of induced-charge electrokinetic motion of electrically conducting particles. Electrochimica Acta, 2013, 87, 270-276.	2.6	47
76	Automatic particle detection and sorting in an electrokinetic microfluidic chip. Electrophoresis, 2013, 34, 684-690.	1.3	20
77	A Label-Free Microfluidic Biosensor for Activity Detection of Single Microalgae Cells Based on Chlorophyll Fluorescence. Sensors, 2013, 13, 16075-16089.	2.1	42
78	ALGAE DETECTION AND SHIP'S BALLAST WATER ANALYSIS BY A MICROFLUIDIC LAB-ON-CHIP DEVICE. Instrumentation Science and Technology, 2012, 40, 305-315.	0.9	12
79	DC dielectrophoresis separation of marine algae and particles in a microfluidic chip. Science China Chemistry, 2012, 55, 524-530.	4.2	27
80	Nanoparticle detection by microfluidic Resistive Pulse Sensor with a submicron sensing gate and dual detecting channels-two stage differential amplifier. Sensors and Actuators B: Chemical, 2011, 155, 930-936.	4.0	30
81	Counting bacteria on a microfluidic chip. Analytica Chimica Acta, 2010, 681, 82-86.	2.6	41
82	Corrosion of marine carbon steel by electrochemically treated ballast water. Journal of Marine Engineering and Technology, 2009, 8, 49-55.	1.9	3
83	Electrokinetic motion of particles and cells in microchannels. Microfluidics and Nanofluidics, 2009, 6, 431-460.	1.0	171
84	Continuous particle separation with localized AC-dielectrophoresis using embedded electrodes and an insulating hurdle. Electrochimica Acta, 2009, 54, 1715-1720.	2.6	113
85	DC-Dielectrophoretic separation of biological cells by size. Biomedical Microdevices, 2008, 10, 243-249.	1.4	243
86	Effect of Joule heating on electrokinetic transport. Electrophoresis, 2008, 29, 994-1005.	1.3	93
87	Translational motion of a spherical particle near a planar liquidâ€“fluid interface. Journal of Colloid and Interface Science, 2008, 319, 344-352.	5.0	14
88	Micromixing using induced-charge electrokinetic flow. Electrochimica Acta, 2008, 53, 5827-5835.	2.6	144
89	Multiscale phenomena in microfluidics and nanofluidics. Chemical Engineering Science, 2007, 62, 3443-3454.	1.9	135
90	DC-dielectrophoretic separation of microparticles using an oil droplet obstacle. Lab on A Chip, 2006, 6, 274-279.	3.1	97

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91	Dielectric Force and Relative Motion between Two Spherical Particles in Electrophoresis. Langmuir, 2006, 22, 1602-1608.	1.6	45
92	Near-wall electrophoretic motion of spherical particles in cylindrical capillaries. Journal of Colloid and Interface Science, 2005, 289, 286-290.	5.0	38
93	Eccentric electrophoretic motion of a sphere in circular cylindrical microchannels. Microfluidics and Nanofluidics, 2005, 1, 234-241.	1.0	50
94	A microfluidic chip for heterogeneous immunoassay using electrokinetical control. Microfluidics and Nanofluidics, 2005, 1, 346-355.	1.0	43
95	Dielectrophoretic Force on a Sphere near a Planar Boundary. Langmuir, 2005, 21, 12037-12046.	1.6	45
96	Heterogeneous Surface Charge Enhanced Micromixing for Electrokinetic Flows. Analytical Chemistry, 2004, 76, 3208-3213.	3.2	252
97	Zeta-potential measurement using the Smoluchowski equation and the slope of the currentâ€“time relationship in electroosmotic flow. Journal of Colloid and Interface Science, 2003, 261, 402-410.	5.0	626
98	Three-Dimensional Structure of Electroosmotic Flow over Heterogeneous Surfaces. Journal of Physical Chemistry B, 2003, 107, 12212-12220.	1.2	48
99	Microchannel Flow with Patchwise and Periodic Surface Heterogeneity. Langmuir, 2002, 18, 8949-8959.	1.6	71
100	Influence of Surface Heterogeneity on Electrokinetically Driven Microfluidic Mixing. Langmuir, 2002, 18, 1883-1892.	1.6	273
101	Electroosmotic Flow in Heterogeneous Microchannels. Journal of Colloid and Interface Science, 2001, 243, 255-261.	5.0	96
102	The Î¶-Potential of Glass Surface in Contact with Aqueous Solutions. Journal of Colloid and Interface Science, 2000, 226, 328-339.	5.0	171