Sung-Jin Kim

List of Publications by Year
in descending order

45 papers	646 citations	16 h-index	24 g-index
46 all docs	46 docs citations	46 times ranked	683 citing authors

516710

610901

#	Article	IF	Citations
1	Movable Layer Device for Rapid Detection of Influenza a H1N1 Virus Using Highly Bright Multi-Quantum Dot-Embedded Particles and Magnetic Beads. Nanomaterials, 2022, 12, 284.	4.1	2
2	Fluidic system with movable layers for all-in-one assay of cell-free DNA in blood. Sensors and Actuators B: Chemical, 2022, 362, 131793.	7.8	0
3	Super-hydrophobic microfluidic channels fabricated via xurography-based polydimethylsiloxane (PDMS) micromolding. Chemical Engineering Science, 2022, 258, 117768.	3.8	5
4	Comparative study on the intrinsic NO2 gas sensing capability of triarylamine-based amorphous organic semiconductors. Dyes and Pigments, 2021, 186, 109017.	3.7	3
5	Fluidic handling system for PCR-based sample-to-answer detection of viral nucleic acids. Sensors and Actuators B: Chemical, 2021, 349, 130788.	7.8	7
6	Preprogrammed microfluidic system for parallel anti-reflection coating by layer-by-layer assembly. Lab on A Chip, 2021, 21, 4629-4636.	6.0	4
7	Microfluidic random number generator driven by water-head pressure and human finger push. Sensors and Actuators A: Physical, 2020, 302, 111802.	4.1	1
8	Characterization of Constant Flow-Driven Microfluidic Oscillator. Journal of Microelectromechanical Systems, 2020, 29, 68-75.	2.5	1
9	Iontronic Graphene Tactile Sensors: Enhanced Sensitivity of Iontronic Graphene Tactile Sensors Facilitated by Spreading of Ionic Liquid Pinned on Graphene Grid (Adv. Funct. Mater. 14/2020). Advanced Functional Materials, 2020, 30, 2070089.	14.9	3
10	Enhanced Sensitivity of Iontronic Graphene Tactile Sensors Facilitated by Spreading of Ionic Liquid Pinned on Graphene Grid. Advanced Functional Materials, 2020, 30, 1908993.	14.9	35
11	Microfluidic Actuation via 3D-Printed Molds toward Multiplex Biosensing of Cell Apoptosis. ACS Sensors, 2019, 4, 2181-2189.	7.8	13
12	Influence of surface tension-driven network parameters on backflow strength. RSC Advances, 2019, 9, 10345-10351.	3.6	5
13	Microfluidic single valve oscillator for blood plasma filtration. Sensors and Actuators B: Chemical, 2019, 296, 126692.	7.8	13
14	Autonomous microfluidic actuators for periodic sequential flow generation. Science Advances, 2019, 5, eaat3080.	10.3	14
15	Passive droplet generation in aqueous two-phase systems with a variable-width microchannel. Soft Matter, 2019, 15, 4647-4655.	2.7	12
16	Stepwise waveform generator for autonomous microfluidic control. Sensors and Actuators B: Chemical, 2018, 266, 614-619.	7.8	16
17	Pulsatile plasma filtration and cell-free DNA amplification using a water-head-driven point-of-care testing chip. Lab on A Chip, 2018, 18, 915-922.	6.0	20
18	Anomalous pulse change in gravity-driven microfluidic oscillator and its application to photodiode switching. Microfluidics and Nanofluidics, 2018, 22, 1.	2.2	4

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19	Method to prevent backflow in a capillarity network for bioassays: Exploiting time constant ratios. Sensors and Actuators B: Chemical, 2018, 255, 3630-3635.	7.8	5
20	Microfluidic stepwise-waveform regulator driven by constant pressure. , 2018, , .		1
21	Microfluidic sputum homogenizer driven by water-head pressure. Sensors and Actuators B: Chemical, 2018, 277, 431-436.	7.8	7
22	Microfluidic chip with movable layers for the manipulation of biochemicals. Lab on A Chip, 2018, 18, 1867-1874.	6.0	9
23	Gravity-driven pulsatile micromixer without using dynamic off-chip controllers. , 2017, , .		1
24	Modular fluidic resistors to enable widely tunable flow rate and fluidic switching period in a microfluidic oscillator. Electrophoresis, 2017, 38, 977-982.	2.4	8
25	Water-head-driven microfluidic oscillators for autonomous control of periodic flows and generation of aqueous two-phase system droplets. Lab on A Chip, 2017, 17, 286-292.	6.0	28
26	Pulsatile micromixing using water-head-driven microfluidic oscillators. Chemical Engineering Journal, 2017, 313, 1364-1369.	12.7	41
27	Gravity-Driven Fluid Pumping and Cell Manipulation. Microsystems and Nanosystems, 2017, , 175-192.	0.1	2
28	Analysis of Membrane Behavior of a Normally Closed Microvalve Using a Fluid-Structure Interaction Model. Micromachines, 2017, 8, 355.	2.9	8
29	Water-head pumps provide precise and fast microfluidic pumping and switching versus syringe pumps. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	11
30	Hydrophilic strips for preventing air bubble formation in a microfluidic chamber. Electrophoresis, 2015, 36, 2896-2901.	2.4	8
31	Multiple independent autonomous hydraulic oscillators driven by a common gravity head. Nature Communications, 2015, 6, 7301.	12.8	37
32	Elastomeric microfluidic valve with low, constant opening threshold pressure. RSC Advances, 2015, 5, 23239-23245.	3.6	20
33	Viable Bacterial Cell Patterning Using a Pulsed Jet Electrospray System. Journal of Microbiology and Biotechnology, 2015, 25, 381-385.	2.1	5
34	Predictable Duty Cycle Modulation through Coupled Pairing of Syringes with Microfluidic Oscillators. Micromachines, 2014, 5, 1254-1269.	2.9	8
35	Microfluidic oscillators with widely tunable periods. Lab on A Chip, 2013, 13, 1644.	6.0	27
36	Preprogrammed capillarity to passively control system-level sequential and parallel microfluidic flows. Lab on A Chip, 2013, 13, 2091.	6.0	28

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37	Preprogrammed, Parallel On-Chip Immunoassay Using System-Level Capillarity Control. Analytical Chemistry, 2013, 85, 6902-6907.	6.5	21
38	Analyzing threshold pressure limitations in microfluidic transistors for self-regulated microfluidic circuits. Applied Physics Letters, 2012, 101, 234107.	3.3	19
39	Constant Flow-Driven Microfluidic Oscillator for Different Duty Cycles. Analytical Chemistry, 2012, 84, 1152-1156.	6.5	43
40	Microfluidic Automation Using Elastomeric Valves and Droplets: Reducing Reliance on External Controllers. Small, 2012, 8, 2925-2934.	10.0	32
41	Passive regulation of volumeâ€flow ratio for microfluidic streams with different hydrophilicity and viscosity. Electrophoresis, 2010, 31, 709-713.	2.4	11
42	Temperature-Programmed Natural Convection for Micromixing and Biochemical Reaction in a Single Microfluidic Chamber. Analytical Chemistry, 2009, 81, 4510-4516.	6.5	54
43	Passive washing using inlet-pressure difference and a washing valve. Journal of Micromechanics and Microengineering, 2007, 17, N22-N29.	2.6	3
44	Study of SU-8 to make a Ni master-mold: Adhesion, sidewall profile, and removal. Electrophoresis, 2006, 27, 3284-3296.	2.4	26
45	Passive Microfluidic Control of Two Merging Streams by Capillarity and Relative Flow Resistance. Analytical Chemistry, 2005, 77, 6494-6499.	6.5	25