Hyundoo Hwang

List of Publications by Year
in descending order

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Version: 2024-02-01

59 papers	2,057 citations	201674 27 h-index	233421 45 g-index
64 all docs	64 docs citations	64 times ranked	2879 citing authors

#	Article	IF	Citations
1	Simple room temperature bonding of thermoplastics and poly(dimethylsiloxane). Lab on A Chip, 2011, 11, 962-965.	6.0	159
2	Lab-on-a-Disc for Fully Integrated Multiplex Immunoassays. Analytical Chemistry, 2012, 84, 2133-2140.	6.5	141
3	Flexible fabrication and applications of polymer nanochannels and nanoslits. Chemical Society Reviews, 2011, 40, 3677.	38.1	110
4	Label-Free Cell Separation Using a Tunable Magnetophoretic Repulsion Force. Analytical Chemistry, 2012, 84, 3075-3081.	6.5	110
5	Optoelectrofluidic platforms for chemistry and biology. Lab on A Chip, 2011, 11, 33-47.	6.0	92
6	Interactive manipulation of blood cells using a lensâ€integrated liquid crystal display based optoelectronic tweezers system. Electrophoresis, 2008, 29, 1203-1212.	2.4	90
7	Rapid and selective concentration of microparticles in an optoelectrofluidic platform. Lab on A Chip, 2009, 9, 199-206.	6.0	80
8	Enhanced discrimination of normal oocytes using optically induced pulling-up dielectrophoretic force. Biomicrofluidics, 2009, 3, 014103.	2.4	69
9	Magnetic force assisted electrochemical sensor for the detection of thrombin with aptamer-antibody sandwich formation. Biosensors and Bioelectronics, 2018, 117, 480-486.	10.1	69
10	Lab-on-a-Disc for Simultaneous Determination of Nutrients in Water. Analytical Chemistry, 2013, 85, 2954-2960.	6.5	64
11	Optoelectrofluidic Sandwich Immunoassays for Detection of Human Tumor Marker Using Surface-Enhanced Raman Scattering. Analytical Chemistry, 2010, 82, 7603-7610.	6.5	61
12	Microfluidic tools for developmental studies of small model organisms â€“nematodes, fruit flies, and zebrafish. Biotechnology Journal, 2013, 8, 192-205.	3.5	55
13	In situ dynamic measurements of the enhanced SERS signal using an optoelectrofluidic SERS platform. Lab on A Chip, 2011, 11, 2518.	6.0	52
14	Paper on a disc: balancing the capillary-driven flow with a centrifugal force. Lab on A Chip, 2011, 11, 3404.	6.0	49
15	Automated and controlled mechanical stimulation and functional imaging in vivo in C. elegans. Lab on A Chip, 2017, 17, 2609-2618.	6.0	49
16	Programmable manipulation of motile cells in optoelectronic tweezers using a grayscale image. Applied Physics Letters, 2008, 93, .	3.3	47
17	Synthesis of colloidal silver nanoparticle clusters and their application in ascorbic acid detection by SERS. Colloids and Surfaces B: Biointerfaces, 2018, 163, 329-335.	5.0	45
18	Direct rapid prototyping of PDMS from a photomask film for micropatterning of biomolecules and cells. Lab on A Chip, 2009, 9, 167-170.	6.0	43

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19	Elastomeric membrane valves in a disc. Lab on A Chip, 2011, 11, 1434.	6.0	43
20	Experimental Investigation of Electrostatic Particleâ"Particle Interactions in Optoelectronic Tweezers. Journal of Physical Chemistry B, 2008, 112, 9903-9908.	2.6	40
21	Human hair-derived hollow carbon microfibers for electrochemical sensing. Carbon, 2016, 107, 872-877.	10.3	40
22	On-demand optical immobilization of Caenorhabditis elegans for high-resolution imaging and microinjection. Lab on A Chip, 2014, 14, 3498.	6.0	34
23	Human breast cancer-derived soluble factors facilitate CCL19-induced chemotaxis of human dendritic cells. Scientific Reports, 2016, 6, 30207.	3.3	33
24	Geometry effects on blood separation rate on a rotating disc. Sensors and Actuators B: Chemical, 2013, 178, 648-655.	7.8	31
25	Productive Chemical Interaction between a Bacterial Microcolony Couple Is Enhanced by Periodic Relocation. Journal of the American Chemical Society, 2013, 135, 2242-2247.	13.7	31
26	Cyclic tangential flow filtration system for isolation of extracellular vesicles. APL Bioengineering, 2021, 5, 016103.	6.2	31
27	Reduction of nonspecific surface-particle interactions in optoelectronic tweezers. Applied Physics Letters, 2008, 92, 024108.	3.3	28
28	Muscle contraction phenotypic analysis enabled by optogenetics reveals functional relationships of sarcomere components in Caenorhabditis elegans. Scientific Reports, 2016, 6, 19900.	3.3	28
29	Biomarkers in Infectious Diseases. Disease Markers, 2018, 2018, 1-2.	1.3	28
30	Optoelectrofluidic Control of Colloidal Assembly in an Optically Induced Electric Field. Langmuir, 2009, 25, 6010-6014.	3.5	27
31	Three dimensional multicellular co-cultures and anti-cancer drug assays in rapid prototyped multilevel microfluidic devices. Biomedical Microdevices, 2013, 15, 627-634.	2.8	26
32	Dynamic Light-Activated Control of Local Chemical Concentration in a Fluid. Analytical Chemistry, 2009, 81, 5865-5870.	6.5	25
33	Measurement of Molecular Diffusion Based on Optoelectrofluidic Fluorescence Microscopy. Analytical Chemistry, 2009, 81, 9163-9167.	6.5	20
34	Generation and manipulation of droplets in an optoelectrofluidic device integrated with microfluidic channels. Applied Physics Letters, 2009, 95, .	3.3	18
35	Direct current-induced breakdown to enhance reproducibility and performance of carbon-based interdigitated electrode arrays for AC electroosmotic micropumps. Sensors and Actuators A: Physical, 2017, 262, 10-17.	4.1	17
36	Mobile diagnostics: next-generation technologies forin vitrodiagnostics. Analyst, The, 2018, 143, 1515-1525.	3.5	17

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37	Controlled anisotropic wetting of scalloped silicon nanogroove. RSC Advances, 2016, 6, 41914-41918.	3.6	16
38	3D Carbon Electrode Based Triboelectric Nanogenerator. Advanced Materials Technologies, 2016, 1, 1600160.	5.8	16
39	Twitchin kinase inhibits muscle activity. Molecular Biology of the Cell, 2017, 28, 1591-1600.	2.1	16
40	RhoA and Rac1 play independent roles in lysophosphatidic acid-induced ovarian cancer chemotaxis. Integrative Biology (United Kingdom), 2014, 6, 267-276.	1.3	15
41	MESIA: Magnetic force-assisted electrochemical sandwich immunoassays for quantification of prostate-specific antigen in human serum. Analytica Chimica Acta, 2019, 1061, 92-100.	5.4	14
42	Molecular evolution of troponin I and a role of its Nâ€terminal extension in nematode locomotion. Cytoskeleton, 2016, 73, 117-130.	2.0	13
43	Hydrodynamic channeling as a controlled flow reversal mechanism for bidirectional AC electroosmotic pumping using glassy carbon microelectrode arrays. Journal of Micromechanics and Microengineering, 2019, 29, 075007.	2.6	10
44	Optoelectrofluidic behavior of metalâ€“polymer hybrid colloidal particles. Applied Physics Letters, 2013, 102, 054105.	3.3	9
45	Optoelectrofluidic Manipulation of Nanoparticles and Biomolecules. Advances in OptoElectronics, 2011, 2011, 1-13.	0.6	7
46	Microfluidic Micropillar Arrays for 3D Cell Culture. Open Biotechnology Journal, 2008, 2, 224-228.	1.2	7
47	Dynamic Mitochondrial Migratory Features Associated with Calcium Responses during T Cell Antigen Recognition. Journal of Immunology, 2019, 203, 760-768.	0.8	6
48	Fabrication of 3D Carbon Microelectromechanical Systems (C-MEMS). Journal of Visualized Experiments, 2017, , .	0.3	5
49	Evaluation of Analytical Performances of Magnetic Force-Assisted Electrochemical Sandwich Immunoassay for the Quantification of Carcinoembryonic Antigen. Frontiers in Bioengineering and Biotechnology, 2021, 9, 798079.	4.1	5
50	Comparison of Two-Dimensional and Three-Dimensional Carbon Electrode Geometries Affecting Bidirectional Electroosmotic Pumping. Journal of Micro and Nano-Manufacturing, 2019, 7, .	0.7	4
51	A Simple Pipetting-based Method for Encapsulating Live Cells into Multi-layered Hydrogel Droplets. Biochip Journal, 2018, 12, 184-192.	4.9	2
52	Evaluation of MARK BTM for Quantitative Measurement of Three Tumor Markers: Prostate Specific Antigen, Alpha Fetoprotein, and Carcinoembryonic Antigen. Clinical Laboratory, 2019, 65, .	0.5	2
53	Magnetophoretic label-free cell separation using paramagnetic solution. , 2011, , .		1
54	Microfluidics for drug delivery systems. , 2019, , 55-83.		1

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55	A Real-time Interactive Control System for Optical Manipulation of Microparticles using Liquid Crystal Display. , 2007, , .		0
56	Dynamic control of local molecular concentration using optoelectrofluidic fluorescence microscopy. , 2009, , .		0
57	Fully Integrated Immunoassays on a Disc. ECS Transactions, 2011, 35, 47-55.	0.5	0
58	Molecular evolution of troponin I and a role of its N-terminal extension in nematode locomotion. Cytoskeleton, 2016, 73, Spc1-Spc1.	2.0	0
59	Programmable Cell Manipulation Using Lab-on-a-Display. NATO Science for Peace and Security Series A: Chemistry and Biology, 2010, , 595-613.	0.5	0