Je-Kyun Park

List of Publications by Year
in descending order

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Version: 2024-02-01

204 papers	7,546 citations	41258 49 h-index	66788 78 g-index
214 all docs	214 docs citations	214 times ranked	8236 citing authors

#	Article	IF	Citations
1	Multi-layered culture of human skin fibroblasts and keratinocytes through three-dimensional freeform fabrication. Biomaterials, 2009, 30, 1587-1595.	5.7	502
2	Onâ€demand threeâ€dimensional freeform fabrication of multiâ€layered hydrogel scaffold with fluidic channels. Biotechnology and Bioengineering, 2010, 105, 1178-1186.	1.7	236
3	Magnetic force-based multiplexed immunoassay using superparamagnetic nanoparticles in microfluidic channel. Lab on A Chip, 2005, 5, 657.	3.1	204
4	Label-Free Cancer Cell Separation from Human Whole Blood Using Inertial Microfluidics at Low Shear Stress. Analytical Chemistry, 2013, 85, 6213-6218.	3.2	180
5	Continuous blood cell separation by hydrophoretic filtration. Lab on A Chip, 2007, 7, 1532.	3.1	177
6	Microfluidic system for dielectrophoretic separation based on a trapezoidal electrode array. Lab on A Chip, 2005, 5, 1161.	3.1	170
7	A microfluidic platform for 3-dimensional cell culture and cell-based assays. Biomedical Microdevices, 2007, 9, 25-34.	1.4	154
8	Three-dimensional bioprinting of rat embryonic neural cells. NeuroReport, 2009, 20, 798-803.	0.6	154
9	Continuous hydrophoretic separation and sizing of microparticles using slanted obstacles in a microchannel. Lab on A Chip, 2007, 7, 890.	3.1	147
10	Label-Free Cell Separation Using a Tunable Magnetophoretic Repulsion Force. Analytical Chemistry, 2012, 84, 3075-3081.	3.2	110
11	Reliable permeability assay system in a microfluidic device mimicking cerebral vasculatures. Biomedical Microdevices, 2012, 14, 1141-1148.	1.4	109
12	Inertial separation in a contractionâ€“expansion array microchannel. Journal of Chromatography A, 2011, 1218, 4138-4143.	1.8	108
13	Three-dimensional hydrodynamic focusing with a single sheath flow in a single-layer microfluidic device. Lab on A Chip, 2009, 9, 3155.	3.1	107
14	Towards practical sample preparation in point-of-care testing: user-friendly microfluidic devices. Lab on A Chip, 2020, 20, 1191-1203.	3.1	107
15	Solâ€gel-derived thick-film conductometric biosensor for urea determination in serum. Analytica Chimica Acta, 2000, 404, 195-203.	2.6	102
16	A simple and smart telemedicine device for developing regions: a pocket-sized colorimetric reader. Lab on A Chip, 2011, 11, 120-126.	3.1	102
17	In vivo nitric oxide sensor using non-conducting polymer-modified carbon fiber. Biosensors and Bioelectronics, 1998, 13, 1187-1195.	5.3	97
18	Determination of breath alcohol using a differential-type amperometric biosensor based on alcohol dehydrogenase. Analytica Chimica Acta, 1999, 390, 83-91.	2.6	96

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19	Sheathless Focusing of Microbeads and Blood Cells Based on Hydrophoresis. Small, 2008, 4, 634-641.	5.2	93
20	Self-reference quantitative phase microscopy for microfluidic devices. Optics Letters, 2010, 35, 514.	1.7	92
21	Optoelectrofluidic platforms for chemistry and biology. Lab on A Chip, 2011, 11, 33-47.	3.1	92
22	Interactive manipulation of blood cells using a lensâ€integrated liquid crystal display based optoelectronic tweezers system. Electrophoresis, 2008, 29, 1203-1212.	1.3	90
23	Microfluidic Self-Sorting of Mammalian Cells to Achieve Cell Cycle Synchrony by Hydrophoresis. Analytical Chemistry, 2009, 81, 1964-1968.	3.2	90
24	Pressed Paper-Based Dipstick for Detection of Foodborne Pathogens with Multistep Reactions. Analytical Chemistry, 2016, 88, 3781-3788.	3.2	89
25	Cytotoxicity test based on electrochemical impedance measurement of HepG2 cultured in microfabricated cell chip. Analytical Biochemistry, 2005, 341, 308-315.	1.1	87
26	Continuous generation of hydrogel beads and encapsulation of biological materials using a microfluidic droplet-merging channel. Microfluidics and Nanofluidics, 2008, 5, 541-549.	1.0	85
27	Lateral flow assay-based bacterial detection using engineered cell wall binding domains of a phage endolysin. Biosensors and Bioelectronics, 2017, 96, 173-177.	5.3	84
28	Electrochemical detection of cardiac troponin I using a microchip with the surface-functionalized poly(dimethylsiloxane) channel. Biosensors and Bioelectronics, 2007, 23, 51-59.	5.3	82
29	Analysis of pressure-driven air bubble elimination in a microfluidic device. Lab on A Chip, 2008, 8, 176-178.	3.1	81
30	Rapid and selective concentration of microparticles in an optoelectrofluidic platform. Lab on A Chip, 2009, 9, 199-206.	3.1	80
31	Inertial blood plasma separation in a contractionâ€“expansion array microchannel. Applied Physics Letters, 2011, 98, .	1.5	76
32	Magnetophoretic Immunoassay of Allergen-Specific IgE in an Enhanced Magnetic Field Gradient. Analytical Chemistry, 2007, 79, 2214-2220.	3.2	75
33	Breast Cancer Diagnosis Using a Microfluidic Multiplexed Immunohistochemistry Platform. PLoS ONE, 2010, 5, e10441.	1.1	71
34	Hydrophoretic high-throughput selection of platelets in physiological shear-stress range. Lab on A Chip, 2011, 11, 413-418.	3.1	70
35	Enhanced discrimination of normal oocytes using optically induced pulling-up dielectrophoretic force. Biomicrofluidics, 2009, 3, 014103.	1.2	69
36	Phenotypic Modulation of Primary Vascular Smooth Muscle Cells by Short-Term Culture on Micropatterned Substrate. PLoS ONE, 2014, 9, e88089.	1.1	69

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37	A microfluidic in vitro cultivation system for mechanical stimulation of bovine embryos. Electrophoresis, 2009, 30, 3276-3282.	1.3	67
38	Disposable liposome immunosensor for theophylline combining an immunochromatographic membrane and a thick-film electrode. Analytica Chimica Acta, 1999, 380, 17-26.	2.6	65
39	Hydrophoretic Sorting of Micrometer and Submicrometer Particles Using Anisotropic Microfluidic Obstacles. Analytical Chemistry, 2009, 81, 50-55.	3.2	61
40	Optoelectrofluidic Sandwich Immunoassays for Detection of Human Tumor Marker Using Surface-Enhanced Raman Scattering. Analytical Chemistry, 2010, 82, 7603-7610.	3.2	61
41	Microfluidic biomechanical device for compressive cell stimulation and lysis. Sensors and Actuators B: Chemical, 2007, 128, 108-116.	4.0	60
42	Lab-on-a-display: a new microparticle manipulation platform using a liquid crystal display (LCD). Microfluidics and Nanofluidics, 2007, 3, 217-225.	1.0	59
43	Finger-actuated microfluidic device for the blood cross-matching test. Lab on A Chip, 2018, 18, 1215-1222.	3.1	58
44	Sheathless Hydrophoretic Particle Focusing in a Microchannel with Exponentially Increasing Obstacle Arrays. Analytical Chemistry, 2008, 80, 3035-3039.	3.2	56
45	Pressed region integrated 3D paper-based microfluidic device that enables vertical flow multistep assays for the detection of C-reactive protein based on programmed reagent loading. Sensors and Actuators B: Chemical, 2017, 246, 1049-1055.	4.0	55
46	Inertial Microfluidics-Based Cell Sorting. Biochip Journal, 2018, 12, 257-267.	2.5	55
47	Dielectrophoretic oocyte selection chip for in vitro fertilization. Biomedical Microdevices, 2008, 10, 337-345.	1.4	52
48	In situ dynamic measurements of the enhanced SERS signal using an optoelectrofluidic SERS platform. Lab on A Chip, 2011, 11, 2518.	3.1	52
49	Programmed sample delivery on a pressurized paper. Biomicrofluidics, 2014, 8, 054121.	1.2	52
50	Multiplexed Detection of Foodborne Pathogens from Contaminated Lettuces Using a Handheld Multistep Lateral Flow Assay Device. Journal of Agricultural and Food Chemistry, 2018, 66, 290-297.	2.4	50
51	Paper on a disc: balancing the capillary-driven flow with a centrifugal force. Lab on A Chip, 2011, 11, 3404.	3.1	49
52	Magnetophoretic Continuous Purification of Singleâ€Walled Carbon Nanotubes from Catalytic Impurities in a Microfluidic Device. Small, 2007, 3, 1784-1791.	5.2	48
53	One-step preparation of magnetic Janus particles using controlled phase separation of polymer blends and nanoparticles. RSC Advances, 2013, 3, 11801.	1.7	48
54	Programmable manipulation of motile cells in optoelectronic tweezers using a grayscale image. Applied Physics Letters, 2008, 93, .	1.5	47

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55	DNA biosensor based on the electrochemiluminescence of Ru(bpy)32+ with DNA-binding intercalators. Bioelectrochemistry, 2007, 70, 228-234.	2.4	46
56	In Situ Analysis of Heterogeneity in the Lipid Content of Single Green Microalgae in Alginate Hydrogel Microcapsules. Analytical Chemistry, 2013, 85, 8749-8756.	3.2	44
57	Enhanced blood plasma separation by modulation of inertial lift force. Sensors and Actuators B: Chemical, 2014, 190, 311-317.	4.0	44
58	Direct rapid prototyping of PDMS from a photomask film for micropatterning of biomolecules and cells. Lab on A Chip, 2009, 9, 167-170.	3.1	43
59	Microfabricated Conductometric Urea Biosensor Based on Sol-Gel Immobilized Urease. Electroanalysis, 2000, 12, 78-82.	1.5	42
60	Drug Permeability Assay Using Microhole-Trapped Cells in a Microfluidic Device. Analytical Chemistry, 2009, 81, 1944-1951.	3.2	42
61	Rapid laminating mixer using a contraction-expansion array microchannel. Applied Physics Letters, 2009, 95, 051902.	1.5	42
62	Plasma extraction in a capillary-driven microfluidic device using surfactant-added poly(dimethylsiloxane). Sensors and Actuators B: Chemical, 2010, 145, 861-868.	4.0	42
63	Microfluidic Rheometer for Characterization of Protein Unfolding and Aggregation in Microflows. Small, 2010, 6, 1306-1310.	5.2	42
64	Integrated microfluidic pumps and valves operated by finger actuation. Lab on A Chip, 2019, 19, 2973-2977.	3.1	42
65	Amperometric biosensor for determination of ethanol vapor. Biosensors and Bioelectronics, 1995, 10, 587-594.	5.3	41
66	Experimental Investigation of Electrostatic Particleâ˜Particle Interactions in Optoelectronic Tweezers. Journal of Physical Chemistry B, 2008, 112, 9903-9908.	1.2	40
67	Isomagnetophoresis to Discriminate Subtle Difference in Magnetic Susceptibility. Journal of the American Chemical Society, 2008, 130, 396-397.	6.6	37
68	Microfluidic parallel circuit for measurement of hydraulic resistance. Biomicrofluidics, 2010, 4, .	1.2	37
69	Quantum dot-based immunoassay enhanced by high-density vertical ZnO nanowire array. Biosensors and Bioelectronics, 2014, 55, 209-215.	5.3	36
70	Tuneable hydrophoretic separation using elastic deformation of poly(dimethylsiloxane). Lab on A Chip, 2009, 9, 1962.	3.1	34
71	Finger-Actuated Microfluidic Display for Smart Blood Typing. Analytical Chemistry, 2019, 91, 11636-11642.	3.2	34
72	Cellular Hydrogel Biopaper for Patterned 3D Cell Culture and Modular Tissue Reconstruction. Advanced Healthcare Materials, 2012, 1, 635-639.	3.9	33

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73	Functional Packaging of Lateral Flow Strip Allows Simple Delivery of Multiple Reagents for Multistep Assays. Analytical Chemistry, 2016, 88, 10374-10378.	3.2	33
74	Two-step photolithography to fabricate multilevel microchannels. Biomicrofluidics, 2010, 4, 46503.	1.2	32
75	Mesh-integrated microdroplet array for simultaneous merging and storage of single-cell droplets. Lab on A Chip, 2012, 12, 1594.	3.1	31
76	Biomechanical analysis of cancerous and normal cells based on bulge generation in a microfluidic device. Analyst, The, 2008, 133, 1432.	1.7	30
77	Pushbutton-activated microfluidic dropenser for droplet digital PCR. Biosensors and Bioelectronics, 2021, 181, 113159.	5.3	30
78	In situ electrochemical enzyme immunoassay on a microchip with surface-functionalized poly(dimethylsiloxane) channel. Enzyme and Microbial Technology, 2006, 39, 1122-1127.	1.6	29
79	Microfluidic Self-Assembly of Insulin Monomers into Amyloid Fibrils on a Solid Surface. Langmuir, 2008, 24, 7068-7071.	1.6	29
80	Rapid multivortex mixing in an alternately formed contraction-expansion array microchannel. Biomedical Microdevices, 2010, 12, 1019-1026.	1.4	29
81	Random breakup of microdroplets for single-cell encapsulation. Applied Physics Letters, 2010, 97, 153703.	1.5	29
82	Reduction of nonspecific surface-particle interactions in optoelectronic tweezers. Applied Physics Letters, 2008, 92, 024108.	1.5	28
83	Versatile immunoassays based on isomagnetophoresis. Lab on A Chip, 2011, 11, 2045.	3.1	28
84	Optoelectrofluidic Control of Colloidal Assembly in an Optically Induced Electric Field. Langmuir, 2009, 25, 6010-6014.	1.6	27
85	Fabrication of a poly(dimethylsiloxane) membrane with well-defined through-holes for three-dimensional microfluidic networks. Journal of Micromechanics and Microengineering, 2009, 19, 045027.	1.5	27
86	A microfluidic abacus channel for controlling the addition of droplets. Lab on A Chip, 2009, 9, 207-212.	3.1	27
87	Quantitative proteomic profiling of breast cancers using a multiplexed microfluidic platform for immunohistochemistry and immunocytochemistry. Biomaterials, 2011, 32, 1396-1403.	5.7	27
88	Automated Measurement of Multiple Cancer Biomarkers Using Quantum-Dot-Based Microfluidic Immunohistochemistry. Analytical Chemistry, 2015, 87, 4177-4183.	3.2	26
89	Dynamic Light-Activated Control of Local Chemical Concentration in a Fluid. Analytical Chemistry, 2009, 81, 5865-5870.	3.2	25
90	User-friendly 3D bioassays with cell-containing hydrogel modules: narrowing the gap between microfluidic bioassays and clinical end-users' needs. Lab on A Chip, 2015, 15, 2379-2387.	3.1	24

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91	Magnetophoretic Sorting of Single Cell-Containing Microdroplets. Micromachines, 2016, 7, 56.	1.4	24
92	Integrated pumpless microfluidic chip for the detection of foodborne pathogens by polymerase chain reaction and electrochemical analysis. Sensors and Actuators B: Chemical, 2021, 329, 129130.	4.0	24
93	Optically Coated Mirrorâ€Embedded Microchannel to Measure Hydrophoretic Particle Ordering in Three Dimensions. Small, 2009, 5, 2205-2211.	5.2	23
94	Optoelectrofluidic enhanced immunoreaction based on optically-induced dynamic AC electroosmosis. Lab on A Chip, 2016, 16, 1189-1196.	3.1	23
95	Development of a test strip reader for a lateral flow membrane-based immunochromatographic assay. Biotechnology and Bioprocess Engineering, 2004, 9, 127-131.	1.4	21
96	Microvalveâ€assisted patterning platform for measuring cellular dynamics based on 3D cell culture. Biotechnology and Bioengineering, 2008, 101, 1005-1013.	1.7	21
97	Experimental Analysis of Porosity and Permeability in Pressed Paper. Micromachines, 2016, 7, 48.	1.4	21
98	Freestanding stacked meshâ€like hydrogel sheets enable the creation of complex macroscale cellular scaffolds. Biotechnology Journal, 2016, 11, 585-591.	1.8	21
99	Development of a microplate reader compatible microfluidic device for enzyme assay. Sensors and Actuators B: Chemical, 2005, 107, 980-985.	4.0	20
100	Measurement of Molecular Diffusion Based on Optoelectrofluidic Fluorescence Microscopy. Analytical Chemistry, 2009, 81, 9163-9167.	3.2	20
101	A Microfluidic Immunostaining System Enables Quality Assured and Standardized Immunohistochemical Biomarker Analysis. Scientific Reports, 2017, 7, 45968.	1.6	20
102	A new biosensor for specific determination of sucrose using an oxidoreductase ofZymomonas mobilis and invertase. Biotechnology and Bioengineering, 1991, 38, 217-223.	1.7	19
103	Finger-Actuated Microfluidic Concentration Gradient Generator Compatible with a Microplate. Micromachines, 2019, 10, 174.	1.4	19
104	Reciprocating flow-assisted nucleic acid purification using a finger-actuated microfluidic device. Lab on A Chip, 2020, 20, 3346-3353.	3.1	19
105	Microfabricated embryonic stem cell divider for large-scale propagation of human embryonic stem cells. Lab on A Chip, 2007, 7, 513.	3.1	18
106	Generation and manipulation of droplets in an optoelectrofluidic device integrated with microfluidic channels. Applied Physics Letters, 2009, 95, .	1.5	18
107	Magnetophoretic position detection for multiplexed immunoassay using colored microspheres in a microchannel. Biosensors and Bioelectronics, 2009, 24, 1870-1876.	5.3	18
108	Preclinical Analysis of Irreversible Electroporation on Rat Liver Tissues Using a Microfabricated Electroporator. Tissue Engineering - Part C: Methods, 2010, 16, 1245-1253.	1.1	18

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109	Mechanical stimulation of bovine embryos in a microfluidic culture platform. Biochip Journal, 2011, 5, 106-113.	2.5	18
110	Pipetting-driven microfluidic immunohistochemistry to facilitate enhanced immunoreaction and effective use of antibodies. Lab on A Chip, 2017, 17, 702-709.	3.1	18
111	A new biosensor for specific determination of glucose or fructose using an oxidoreductase ofZymomonas mobilis. Biotechnology and Bioengineering, 1990, 36, 744-749.	1.7	17
112	Inertia-activated cell sorting of immune-specifically labeled cells in a microfluidic device. RSC Advances, 2014, 4, 39140-39144.	1.7	17
113	On-site extraction and purification of bacterial nucleic acids from blood samples using an unpowered microfluidic device. Sensors and Actuators B: Chemical, 2020, 320, 128346.	4.0	17
114	On-chip testing device for electrochemotherapeutic effects on human breast cells. Biomedical Microdevices, 2009, 11, 151-159.	1.4	16
115	Facile and Biocompatible Fabrication of Chemically Solâ˜'Gel Transitional Hydrogel Free-Standing Microarchitectures. Biomacromolecules, 2011, 12, 14-18.	2.6	16
116	High-throughput nanoscale lipid vesicle synthesis in a semicircular contraction-expansion array microchannel. Biochip Journal, 2013, 7, 210-217.	2.5	16
117	Colorimetric Detection of Escherichia coli O157:H7 with Signal Enhancement Using Size-Based Filtration on a Finger-Powered Microfluidic Device. Sensors, 2020, 20, 2267.	2.1	16
118	Rapid oneâ€step purification of singleâ€cells encapsulated in alginate microcapsules from oil to aqueous phase using a hydrophobic filter paper: Implications for singleâ€cell experiments. Biotechnology Journal, 2014, 9, 1233-1240.	1.8	15
119	Microbridge structures for uniform interval control of flowing droplets in microfluidic networks. Biomicrofluidics, 2011, 5, 34117-341179.	1.2	14
120	Geometric effect of the hydrogel grid structure on in vitro formation of homogeneous MIN6 cell clusters. Lab on A Chip, 2014, 14, 2183-2190.	3.1	14
121	Plant array chip for the germination and growth screening of Arabidopsis thaliana. Lab on A Chip, 2017, 17, 3071-3077.	3.1	14
122	Foldable paper-based analytical device for the detection of an acetylcholinesterase inhibitor using an angle-based readout. Sensors and Actuators B: Chemical, 2018, 273, 322-327.	4.0	14
123	Inertial Microfluidics-Based Separation of Microalgae Using a Contractionâ€“Expansion Array Microchannel. Micromachines, 2021, 12, 97.	1.4	14
124	High-throughput culture and embedment of spheroid array using droplet contact-based spheroid transfer. Biomicrofluidics, 2018, 12, 044109.	1.2	13
125	Microfluidic channel-integrated hanging drop array chip operated by pushbuttons for spheroid culture and analysis. Analyst, The, 2020, 145, 6974-6980.	1.7	13
126	Moldless electroplating for cylindrical microchannel fabrication. Electrochemistry Communications, 2005, 7, 913-917.	2.3	12

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127	Magnetic Nanoclusters for Ultrasensitive Magnetophoretic Assays. Small, 2009, 5, 2243-2246.	5.2	12
128	Hepatotoxicity assay using human hepatocytes trapped in microholes of a microfluidic device. Electrophoresis, 2010, 31, 3167-3174.	1.3	12
129	Fabrication of a Perfusable 3D In Vitro Artery-Mimicking Multichannel System for Artery Disease Models. ACS Biomaterials Science and Engineering, 2020, 6, 5326-5336.	2.6	12
130	Editorial: Nanobio versus Bionano â€“ what's in a name?. Biotechnology Journal, 2013, 8, 158-159.	1.8	11
131	Dielectrophoresis in a Slanted Microchannel for Separation of Microparticles and Bacteria. Journal of Nanoscience and Nanotechnology, 2013, 13, 7993-7997.	0.9	11
132	Controlled 3D co-culture of beta cells and endothelial cells in a micropatterned collagen sheet for reproducible construction of an improved pancreatic pseudo-tissue. APL Bioengineering, 2020, 4, 046103.	3.3	11
133	Biomarker barcodes: multiplexed microfluidic immunohistochemistry enables high-throughput analysis of tissue microarray. Lab on A Chip, 2021, 21, 3471-3482.	3.1	11
134	Optical path-length modulation for three-dimensional particle measurement in mirror-embedded microchannels. Lab on A Chip, 2010, 10, 335-340.	3.1	10
135	Optoelectrofluidic printing system for fabricating hydrogel sheets with on-demand patterned cells and microparticles. Biofabrication, 2017, 9, 015011.	3.7	10
136	Toxicity Assessment of Iron Oxide Nanoparticles Based on Cellular Magnetic Loading Using Magnetophoretic Sorting in a Trapezoidal Microchannel. Analytical Chemistry, 2018, 90, 920-927.	3.2	10
137	Hand-Maneuverable Collagen Sheet with Micropatterns for 3D Modular Tissue Engineering. ACS Biomaterials Science and Engineering, 2019, 5, 339-345.	2.6	10
138	Flow injection analysis of glucose, fructose, and sucrose using a biosensor constructed with permeabilized Zymomonas mobilis and invertase. Biotechnology Progress, 1995, 11, 58-63.	1.3	9
139	Optoelectrofluidic behavior of metalâ€“polymer hybrid colloidal particles. Applied Physics Letters, 2013, 102, 054105.	1.5	9
140	Breast Cancer Diagnostics Using Microfluidic Multiplexed Immunohistochemistry. Methods in Molecular Biology, 2013, 949, 349-364.	0.4	9
141	Organic Solvent and Surfactant Resistant Paper-Fluidic Devices Fabricated by One-Step Embossing of Nonwoven Polypropylene Sheet. Micromachines, 2017, 8, 30.	1.4	8
142	Multilayered and heterogeneous hydrogel construct printing system with crosslinking aerosol. Biofabrication, 2021, 13, 045027.	3.7	8
143	Modular 3D In Vitro Artery-Mimicking Multichannel System for Recapitulating Vascular Stenosis and Inflammation. Micromachines, 2021, 12, 1528.	1.4	8
144	Mirror-embedded microchannel for three-dimensional measurement of particle position. Applied Physics Letters, 2008, 93, 191909.	1.5	7

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145	Microdevice for Analyzing the Effect of Electrochemotherapy on Cancer Cells. Analytical Chemistry, 2009, 81, 3517-3522.	3.2	7
146	Optoelectrofluidic Manipulation of Nanoparticles and Biomolecules. Advances in OptoElectronics, 2011, 2011, 1-13.	0.6	7
147	Reduction in microparticle adsorption using a lateral interconnection method in a <scp>PDMS</scp>â€based microfluidic device. Electrophoresis, 2013, 34, 3119-3125.	1.3	7
148	A quantum dot-based microfluidic multi-window platform for quantifying the biomarkers of breast cancer cells. Integrative Biology (United Kingdom), 2014, 6, 430.	0.6	7
149	Microarray-integrated optoelectrofluidic immunoassay system. Biomicrofluidics, 2016, 10, 034106.	1.2	7
150	Microfabricated cell culture system for the live cell observation of the multilayered proliferation of undifferentiated HT-29 cells. Biochip Journal, 2017, 11, 308-315.	2.5	7
151	Microfluidic Micropillar Arrays for 3D Cell Culture. Open Biotechnology Journal, 2008, 2, 224-228.	0.6	7
152	Submicro photopatterning of alkanethiolate self-assembled monolayer using a negative mask and its application in the fabrication of biomolecular photodiode. Materials Science and Engineering C, 2004, 24, 91-94.	3.8	6
153	Superparamagnetic nanoparticle-based nanobiomolecular detection in a microfluidic channel. Current Applied Physics, 2006, 6, 976-981.	1.1	6
154	Onâ€chip generation of monodisperse giant unilamellar lipid vesicles containing quantum dots. Electrophoresis, 2016, 37, 1353-1358.	1.3	6
155	Bioprinting of heterogeneous and multilayered cell-hydrogel constructs using continuous multi-material printing and aerosol-based crosslinking. STAR Protocols, 2022, 3, 101303.	0.5	6
156	Disposable thick-film amperometric biosensor with multiple working electrodes fabricated on a single substrate. Sensors and Actuators B: Chemical, 1996, 34, 490-492.	4.0	5
157	A bio-fluidic device for adaptive sample pretreatment and its application to measurements ofEscherichia coli concentrations. Biotechnology and Bioprocess Engineering, 2006, 11, 54-60.	1.4	5
158	Visualization and label-free quantification of microfluidic mixing using quantitative phase imaging. Applied Optics, 2017, 56, 6341.	0.9	5
159	Droplet contact-based spheroid transfer technique as a multi-step assay tool for spheroid arrays. Lab on A Chip, 2021, 21, 4155-4165.	3.1	5
160	Label-free monitoring of 3D cortical neuronal growth in vitro using optical diffraction tomography. Biomedical Optics Express, 2021, 12, 6928.	1.5	5
161	A fully automated analyzer for multiple detection of allergen-specific immunoglobulin E. Analytical Methods, 2015, 7, 8889-8895.	1.3	4
162	A magnetophoresis-based microfluidic detection platform under a static-fluid environment. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	4

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163	Extraordinary Figureâ€ofâ€Merit of Magnetic Resonance from Ultrathin Silicon Nanohole Membrane as Allâ€Dielectric Metamaterial. Advanced Optical Materials, 2017, 5, 1600628.	3.6	4
164	Assembly and Disassembly of the Micropatterned Collagen Sheets Containing Cells for Location-Based Cellular Function Analysis. Biochip Journal, 2021, 15, 77-89.	2.5	4
165	Construction of a Fibroblast-Associated Tumor Spheroid Model Based on a Collagen Drop Array Chip. Biosensors, 2021, 11, 506.	2.3	4
166	Direct Microextrusion Printing of a Low Viscosity Hydrogel on a Supportive Microstructured Bioprinting Substrate for the Vasculogenesis of Endothelial Cells. Advanced Materials Technologies, 2022, 7, .	3.0	4
167	Microfluidic Pycnometer for in Situ Analysis of Fluids in Microchannels. Analytical Chemistry, 2009, 81, 2569-2574.	3.2	3
168	Construction of Modular Hydrogel Sheets for Micropatterned Macro-scaled 3D Cellular Architecture. Journal of Visualized Experiments, 2016, , .	0.2	3
169	Assembly of hydrogel units for 3D microenvironment in a poly(dimethylsiloxane) channel. Micro and Nano Systems Letters, 2017, 5, .	1.7	3
170	Demonstration of Interposed Modular Hydrogel Sheet for Multicellular Analysis in a Microfluidic Assembly Platform. Scientific Reports, 2017, 7, 1289.	1.6	3
171	Vertically sheathing laminar flow-based immunoassay using simultaneous diffusion-driven immune reactions. RSC Advances, 2019, 9, 23791-23796.	1.7	3
172	Design criteria and standardization of a microfluidic cell culture system for investigating cellular migration. Journal of Micromechanics and Microengineering, 2019, 29, 043003.	1.5	3
173	Microchannel Integrated Comb-Type Electrode System for Electrochemical Detection. , 2006, , .		2
174	10th Anniversary Issue: Korea. Lab on A Chip, 2011, 11, 23-24.	3.1	2
175	Lab-on-a-Display: Microparticles Manipulation using Liquid Crystal Display. , 2006, , .		1
176	DNA chip replication for a personalized DNA chip. New Biotechnology, 2006, 23, 129-134.	2.7	1
177	Hydrophoresis: A New -Phoretic Method for High-Resolution Particle Separation. , 2007, , .		1
178	A microfluidic magnetophoresis chip for continuous single-walled carbon nanotube purification from magnetic force-induced superparamagnetic metal catalyst. , 2007, , .		1
179	Microfluidics: Small 19/2009. Small, 2009, 5, NA-NA.	5.2	1
180	A power-free blood plasma extraction device based on planar crossflow filter microstructure. , 2009, , .		1

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181	Self-reference extended depth-of-field quantitative phase microscopy. Proceedings of SPIE, 2010, , .	0.8	1
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