Bong Geun Chung

List of Publications by Year
in descending order

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90 papers	5,831 citations	101496 36 h-index	74108 75 g-index
90 all docs	90 docs citations	90 times ranked	8141 citing authors

#	Article	IF	Citations
1	Human neural stem cell growth and differentiation in a gradient-generating microfluidic device. Lab on A Chip, 2005, 5, 401.	3.1	501
2	Microfluidic fabrication of microengineered hydrogels and their application in tissue engineering. Lab on A Chip, 2012, 12, 45-59.	3.1	375
3	Microwell-mediated control of embryoid body size regulates embryonic stem cell fate via differential expression of WNT5a and WNT11. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16978-16983.	3.3	349
4	Nano/Microfluidics for diagnosis of infectious diseases in developing countries. Advanced Drug Delivery Reviews, 2010, 62, 449-457.	6.6	305
5	Microfluidics for drug discovery and development: From target selection to product lifecycle management. Drug Discovery Today, 2008, 13, 1-13.	3.2	290
6	A microwell array system for stem cell culture. Biomaterials, 2008, 29, 752-763.	5.7	277
7	Stop-flow lithography to generate cell-laden microgel particles. Lab on A Chip, 2008, 8, 1056.	3.1	268
8	Controlled-size embryoid body formation in concave microwell arrays. Biomaterials, 2010, 31, 4296-4303.	5.7	223
9	Polymerase chain reaction in microfluidic devices. Lab on A Chip, 2016, 16, 3866-3884.	3.1	210
10	Generation of stable concentration gradients in 2D and 3D environments using a microfluidic ladder chamber. Biomedical Microdevices, 2007, 9, 627-635.	1.4	175
11	Concave microwell based size-controllable hepatosphere as a three-dimensional liver tissue model. Biomaterials, 2011, 32, 8087-8096.	5.7	168
12	Microfluidic synthesis of pure chitosan microfibers for bio-artificial liver chip. Lab on A Chip, 2010, 10, 1328.	3.1	135
13	Anticancer Drug-Loaded Gliadin Nanoparticles Induce Apoptosis in Breast Cancer Cells. Langmuir, 2012, 28, 8216-8223.	1.6	135
14	Reduced Graphene Oxide Nanosheet for Chemo-photothermal Therapy. Langmuir, 2016, 32, 2731-2736.	1.6	119
15	Generation of Stable Complex Gradients Across Two-Dimensional Surfaces and Three-Dimensional Gels. Langmuir, 2007, 23, 10910-10912.	1.6	105
16	Optofluidic platforms based on surface-enhanced Raman scattering. Analyst, The, 2010, 135, 837.	1.7	96
17	A microfluidic multi-injector for gradient generation. Lab on A Chip, 2006, 6, 764.	3.1	91
18	Microporous cellâ€laden hydrogels for engineered tissue constructs. Biotechnology and Bioengineering, 2010, 106, 138-148.	1.7	90

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19	Generation of uniform-sized multicellular tumor spheroids using hydrogel microwells for advanced drug screening. Scientific Reports, 2018, 8, 17145.	1.6	89
20	Development of a theranostic prodrug for colon cancer therapy by combining ligand-targeted delivery and enzyme-stimulated activation. Biomaterials, 2018, 155, 145-151.	5.7	85
21	Microfluidic gradient platforms for controlling cellular behavior. Electrophoresis, 2010, 31, 3014-3027.	1.3	83
22	Rapid generation of spatially and temporally controllable long-range concentration gradients in a microfluidic device. Lab on A Chip, 2009, 9, 761-767.	3.1	81
23	Microcirculation within grooved substrates regulates cell positioning and cell docking inside microfluidic channels. Lab on A Chip, 2008, 8, 747.	3.1	79
24	Micro- and nanoscale technologies for tissue engineering and drug discovery applications. Expert Opinion on Drug Discovery, 2007, 2, 1653-1668.	2.5	75
25	High-throughput screening of cell responses to biomaterials. European Journal of Pharmaceutical Sciences, 2008, 35, 151-160.	1.9	66
26	Dual Stimuli-Triggered Nanogels in Response to Temperature and pH Changes for Controlled Drug Release. Nanoscale Research Letters, 2019, 14, 77.	3.1	60
27	Hybrid Grapheneâ€Gold Nanoparticleâ€Based Nucleic Acid Conjugates for Cancerâ€Specific Multimodal Imaging and Combined Therapeutics. Advanced Functional Materials, 2021, 31, 2006918.	7.8	55
28	Development of a multi-layer microfluidic array chip to culture and replate uniform-sized embryoid bodies without manual cell retrieval. Lab on A Chip, 2010, 10, 2651.	3.1	53
29	Functional Graphene Oxide-Based Nanosheets for Photothermal Therapy. Macromolecular Research, 2018, 26, 557-565.	1.0	53
30	A hybrid microfluidic-vacuum device for direct interfacing with conventional cell culture methods. BMC Biotechnology, 2007, 7, 60.	1.7	49
31	Cell Docking in Double Grooves in a Microfluidic Channel. Small, 2009, 5, 1186-1194.	5.2	46
32	Generation of tumor spheroids using a droplet-based microfluidic device for photothermal therapy. Microsystems and Nanoengineering, 2020, 6, 52.	3.4	43
33	Effect of biochemical and biomechanical factors on vascularization of kidney organoid-on-a-chip. Nano Convergence, 2021, 8, 35.	6.3	43
34	Highly Porous Coreâ€“Shell Polymeric Fiber Network. Langmuir, 2011, 27, 10993-10999.	1.6	42
35	Thermo-responsive polymeric nanoparticles for enhancing neuronal differentiation of human induced pluripotent stem cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 1861-1869.	1.7	40
36	An integrated microfluidic culture device to regulate endothelial cell differentiation from embryonic stem cells. Electrophoresis, 2011, 32, 3133-3137.	1.3	39

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37	Concave microwell array-mediated three-dimensional tumor model for screening anticancer drug-loaded nanoparticles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 1153-1161.	1.7	38
38	Conductive hydrogel/nanowire micropattern-based sensor for neural stem cell differentiation. Sensors and Actuators B: Chemical, 2018, 258, 1042-1050.	4.0	38
39	Electro-responsive hydrogel-based microfluidic actuator platform for photothermal therapy. Lab on A Chip, 2020, 20, 3354-3364.	3.1	38
40	Development of pH-responsive chitosan-coated mesoporous silica nanoparticles. Macromolecular Research, 2014, 22, 412-417.	1.0	34
41	rGO nanomaterial-mediated cancer targeting and photothermal therapy in a microfluidic co-culture platform. Nano Convergence, 2020, 7, 10.	6.3	33
42	Selective monitoring of vascular cell senescence via Î²-Galactosidase detection with a fluorescent chemosensor. Sensors and Actuators B: Chemical, 2018, 274, 194-200.	4.0	32
43	Contributions of the microbiome to intestinal inflammation in a gut-on-a-chip. Nano Convergence, 2022, 9, 8.	6.3	32
44	A computational and experimental study inside microfluidic systems: the role of shear stress and flow recirculation in cell docking. Biomedical Microdevices, 2010, 12, 619-626.	1.4	31
45	Photoâ€crosslinkable hydrogelâ€based 3D microfluidic culture device. Electrophoresis, 2015, 36, 994-1001.	1.3	31
46	Dual-neodymium magnet-based microfluidic separation device. Scientific Reports, 2019, 9, 9502.	1.6	27
47	Automated droplet reactor for the synthesis of iron oxide/gold core-shell nanoparticles. Scientific Reports, 2020, 10, 1737.	1.6	27
48	Retinoic Acid-Polyethyleneimine Complex Nanoparticles for Embryonic Stem Cell-Derived Neuronal Differentiation. Langmuir, 2013, 29, 9857-9862.	1.6	23
49	A selfâ€assembled monolayerâ€based micropatterned array for controlling cell adhesion and protein adsorption. Biotechnology and Bioengineering, 2011, 108, 1194-1202.	1.7	22
50	Hydrogel microfluidic coâ€culture device for photothermal therapy and cancer migration. Electrophoresis, 2017, 38, 1318-1324.	1.3	22
51	Microneedles with Tunable Dissolution Rate. ACS Biomaterials Science and Engineering, 2020, 6, 5061-5068.	2.6	22
52	Plasmonic heating-based portable digital PCR system. Lab on A Chip, 2020, 20, 3560-3568.	3.1	22
53	Droplet-based synthesis of homogeneous magnetic iron oxide nanoparticles. Beilstein Journal of Nanotechnology, 2018, 9, 2413-2420.	1.5	20
54	Combinatorial biophysical cue sensor array for controlling neural stem cell fate. Biosensors and Bioelectronics, 2020, 156, 112125.	5.3	20

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55	Rapid Formation of Acrylated Microstructures by Microwaveâ€Induced Thermal Crosslinking. Macromolecular Rapid Communications, 2009, 30, 1382-1386.	2.0	19
56	Droplet-based Synthesis of Homogeneous Gold Nanoparticles for Enhancing HRP-based ELISA Signals. Biochip Journal, 2020, 14, 298-307.	2.5	19
57	Molecular theranostic based on esterase-mediated drug activation for hepatocellular carcinoma. Dyes and Pigments, 2019, 163, 628-633.	2.0	18
58	Microwell Array-based Digital PCR for Influenza Virus Detection. Biochip Journal, 2019, 13, 269-276.	2.5	17
59	A microfluidic gradient device for drug screening with human iPSC-derived motoneurons. Analyst, The, 2020, 145, 3081-3089.	1.7	17
60	Hydrogel-encapsulated 3D microwell array for neuronal differentiation. Biomedical Materials (Bristol), 2016, 11, 015019.	1.7	16
61	Dual-stimuli responsive mesoporous copper (II) sulfide nanocomposite for chemo-photothermal synergistic therapy. Microporous and Mesoporous Materials, 2020, 302, 110228.	2.2	15
62	Graphene and thermo-responsive polymeric nanocomposites for therapeutic applications. Biomedical Engineering Letters, 2016, 6, 10-15.	2.1	14
63	Development of the Microfluidic Device to Regulate Shear Stress Gradients. Biochip Journal, 2018, 12, 294-303.	2.5	13
64	Poisson statistics-mediated particle/cell counting in microwell arrays. Scientific Reports, 2018, 8, 2438.	1.6	12
65	Near-Infrared Light-Triggered Thermo-responsive Poly(N-Isopropylacrylamide)-Pyrrole Nanocomposites for Chemo-photothermal Cancer Therapy. Nanoscale Research Letters, 2020, 15, 214.	3.1	12
66	Separation, Purification, and Detection of cfDNA in a Microfluidic Device. Biochip Journal, 2020, 14, 195-203.	2.5	12
67	Conductive GelMAâ€“Collagenâ€“AgNW Blended Hydrogel for Smart Actuator. Polymers, 2021, 13, 1217.	2.0	12
68	Microwell arrays for uniform-sized embryoid body-mediated endothelial cell differentiation. Biomedical Microdevices, 2014, 16, 559-566.	1.4	11
69	Analysis of 3D multiâ€layer microfluidic gradient generator. Electrophoresis, 2017, 38, 270-277.	1.3	11
70	Epithelialâ€toâ€mesenchymal transition of human lung alveolar epithelial cells in a microfluidic gradient device. Electrophoresis, 2013, 34, 441-447.	1.3	10
71	Dualâ€micropillarâ€based microfluidic platform for single embryonic stem cellâ€derived neuronal differentiation. Electrophoresis, 2013, 34, 1931-1938.	1.3	10
72	Synthesis and characterization of thermoresponsive polymeric nanoparticles. Biochip Journal, 2014, 8, 8-14.	2.5	10

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73	Dual-nozzle microfluidic droplet generator. Nano Convergence, 2018, 5, 12.	6.3	10
74	Twoâ€phase bioreactor system for cellâ€laden hydrogel assembly. Biotechnology Progress, 2011, 27, 466-472.	1.3	9
75	Microfluidic electrode array chip for electrical stimulation-mediated axonal regeneration. Lab on A Chip, 2022, 22, 2122-2130.	3.1	8
76	Mucin (MUC5AC) expression by lung epithelial cells cultured in a microfluidic gradient device. Electrophoresis, 2011, 32, 254-260.	1.3	7
77	Facile Synthesis of Surfactant-Free Au Decorated Hollow Silica Nanoparticles for Photothermal Applications. Macromolecular Research, 2018, 26, 1129-1134.	1.0	7
78	Continuous separation of fungal spores in a microfluidic flow focusing device. Analyst, The, 2019, 144, 4962-4971.	1.7	6
79	Near-Infrared Light-Triggered Generation of Reactive Oxygen Species and Induction of Local Hyperthermia from Indocyanine Green Encapsulated Mesoporous Silica-Coated Graphene Oxide for Colorectal Cancer Therapy. Antioxidants, 2022, 11, 174.	2.2	6
80	CuS/rGO-PEG Nanocomposites for Photothermal Bonding of PMMA-Based Plastic Lab-on-a-Chip. Nanomaterials, 2021, 11, 176.	1.9	5
81	Circularâ€shaped microfluidic device to study the effect of shear stress on cellular orientation. Electrophoresis, 2018, 39, 1816-1820.	1.3	4
82	Algorithm Analysis of Gas Bubble Generation in a Microfluidic Device. Biochip Journal, 2019, 13, 133-141.	2.5	4
83	Uniformâ€sized neurosphereâ€mediated motoneuron differentiation in microwell arrays. Electrophoresis, 2017, 38, 3161-3167.	1.3	3
84	Sequential and Comprehensive Algorithm for Fault Detection in Semiconductor Sensors. Applied Sciences (Switzerland), 2021, 11, 10419.	1.3	3
85	Liver Cell Line Derived Conditioned Medium Enhances Myofibril Organization of Primary Rat Cardiomyocytes. Molecules and Cells, 2012, 34, 149-158.	1.0	2
86	Special issue on tissue engineering. Biomedical Engineering Letters, 2013, 3, 115-116.	2.1	1
87	Prediction analysis and quality assessment of microwell array images. Electrophoresis, 2018, 39, 948-956.	1.3	1
88	Micropillarâ€based microfluidic device to regulate neurite networks of uniformâ€sized neurospheres. Electrophoresis, 2019, 40, 419-424.	1.3	1
89	Pen-drawn air cathode featuring graphite felt substrate modified with MnO2-decorated graphene flakes and PEDOT network for rechargeable zincâ€“air battery. Journal of Industrial and Engineering Chemistry, 2022, 108, 411-417.	2.9	1
90	Conductive Silver/Carbon Fiber Films for Rapid Detection of Human Coronavirus. Polymers, 2022, 14, 1983.	2.0	0