Chia-Hung Chen

List of Publications by Year
in descending order

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66 papers	3,065 citations	147786 31 h-index	161844 54 g-index
72 all docs	72 docs citations	72 times ranked	4835 citing authors

#	Article	IF	Citations
1	Gradient Porous Elastic Hydrogels with Shapeâ€Memory Property and Anisotropic Responses for Programmable Locomotion. Advanced Functional Materials, 2015, 25, 7272-7279.	14.9	228
2	Janus Particles Templated from Double Emulsion Droplets Generated Using Microfluidics. Langmuir, 2009, 25, 4320-4323.	3.5	210
3	Droplet Microfluidics for Fabrication of Nonâ€Spherical Particles. Macromolecular Rapid Communications, 2010, 31, 108-118.	3.9	208
4	Microfluidic Assembly of Magnetic Hydrogel Particles with Uniformly Anisotropic Structure. Advanced Materials, 2009, 21, 3201-3204.	21.0	196
5	Beating Poisson encapsulation statistics using close-packed ordering. Lab on A Chip, 2009, 9, 2628.	6.0	162
6	Heterogeneous multi-compartmental hydrogel particles as synthetic cells for incompatible tandem reactions. Nature Communications, 2017, 8, 663.	12.8	126
7	Upconversion amplification through dielectric superlensing modulation. Nature Communications, 2019, 10, 1391.	12.8	114
8	A flexible multiplexed immunosensor for point-of-care in situ wound monitoring. Science Advances, 2021, 7, .	10.3	106
9	Nanofluidic terahertz metasensor for sensing in aqueous environment. Applied Physics Letters, 2018, 113, .	3.3	97
10	Asymmetrical Deterministic Lateral Displacement Gaps for Dual Functions of Enhanced Separation and Throughput of Red Blood Cells. Scientific Reports, 2016, 6, 22934.	3.3	87
11	Jetting microfluidics with size-sorting capability for single-cell protease detection. Biosensors and Bioelectronics, 2015, 66, 19-23.	10.1	81
12	ADAM-10 and -17 regulate endometriotic cell migration via concerted ligand and receptor shedding feedback on kinase signaling. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2074-83.	7.1	80
13	Enhancing Protease Activity Assay in Droplet-Based Microfluidics Using a Biomolecule Concentrator. Journal of the American Chemical Society, 2011, 133, 10368-10371.	13.7	77
14	Multiplexed Protease Activity Assay for Low-Volume Clinical Samples Using Droplet-Based Microfluidics and Its Application to Endometriosis. Journal of the American Chemical Society, 2013, 135, 1645-1648.	13.7	76
15	Real-time modulated nanoparticle separation with an ultra-large dynamic range. Lab on A Chip, 2016, 16, 75-85.	6.0	75
16	Single cell multiplexed assay for proteolytic activity using droplet microfluidics. Biosensors and Bioelectronics, 2016, 81, 408-414.	10.1	66
17	Remote modulation of neural activities via near-infrared triggered release of biomolecules. Biomaterials, 2015, 65, 76-85.	11.4	65
18	Ultrahigh-throughput droplet microfluidic device for single-cell miRNA detection with isothermal amplification. Lab on A Chip, 2018, 18, 1914-1920.	6.0	58

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19	Production of Hollow Bacterial Cellulose Microspheres Using Microfluidics to Form an Injectable Porous Scaffold for Wound Healing. Advanced Healthcare Materials, 2016, 5, 2983-2992.	7.6	57
20	NeuroArray: A Universal Interface for Patterning and Interrogating Neural Circuitry with Single Cell Resolution. Scientific Reports, 2014, 4, 4784.	3.3	54
21	Single Upconversion Nanoparticleâ€“Bacterium Cotrapping for Singleâ€Bacterium Labeling and Analysis. Small, 2017, 13, 1603418.	10.0	53
22	Smart Hydrogel Microfluidics for Singleâ€Cell Multiplexed Secretomic Analysis with High Sensitivity. Small, 2018, 14, e1802918.	10.0	52
23	Nearâ€Infrared Light Responsive Multiâ€Compartmental Hydrogel Particles Synthesized Through Droplets Assembly Induced by Superhydrophobic Surface. Small, 2014, 10, 4886-4894.	10.0	47
24	A turn on fluorescent sensor based on lanthanide coordination polymer nanoparticles for the detection of mercury(<scp>ii</scp>) in biological fluids. RSC Advances, 2016, 6, 17811-17817.	3.6	45
25	Photoresponsive microvalve for remote actuation and flow control in microfluidic devices. Biomicrofluidics, 2015, 9, 034114.	2.4	36
26	Near-infrared light triggerable deformation-free polysaccharide double network hydrogels. Chemical Communications, 2014, 50, 7052-7055.	4.1	35
27	Sustained release of hydrophobic drugs by the microfluidic assembly of multistage microgel/poly (lactic-co-glycolic acid) nanoparticle composites. Biomicrofluidics, 2015, 9, 052601.	2.4	35
28	Single cell kinase signaling assay using pinched flow coupled droplet microfluidics. Biomicrofluidics, 2014, 8, 034104.	2.4	34
29	Low-volume multiplexed proteolytic activity assay and inhibitor analysis through a pico-injector array. Lab on A Chip, 2015, 15, 1153-1159.	6.0	34
30	Near-infrared photothermal activation of microgels incorporating polypyrrole nanotransducers through droplet microfluidics. Chemical Communications, 2013, 49, 7887.	4.1	32
31	A convection-driven long-range linear gradient generator with dynamic control. Lab on A Chip, 2015, 15, 1445-1450.	6.0	32
32	Effective Light Directed Assembly of Building Blocks with Microscale Control. Small, 2017, 13, 1700684.	10.0	27
33	A Remotely Controlled Transformable Soft Robot Based on Engineered Cardiac Tissue Construct. Small, 2019, 15, e1900006.	10.0	27
34	Photothermal generation of programmable microbubble array on nanoporous gold disks. Optics Express, 2018, 26, 16893.	3.4	26
35	Functional reservoir microcapsules generated via microfluidic fabrication for long-term cardiovascular therapeutics. Lab on A Chip, 2020, 20, 2756-2764.	6.0	26
36	Single Cell Analysis of Leukocyte Protease Activity Using Integrated Continuous-Flow Microfluidics. Analytical Chemistry, 2016, 88, 11750-11757.	6.5	25

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37	Plasmonic droplet screen for single-cell secretion analysis. Biosensors and Bioelectronics, 2019, 144, 111639.	10.1	22
38	Dissolvable Gelatinâ€Based Microcarriers Generated through Droplet Microfluidics for Expansion and Culture of Mesenchymal Stromal Cells. Biotechnology Journal, 2021, 16, e2000048.	3.5	22
39	Buffer-free integrative nanofluidic device for real-time continuous flow bioassays by ion concentration polarization. Lab on A Chip, 2018, 18, 574-584.	6.0	19
40	Continuous-flow C. elegans fluorescence expression analysis with real-time image processing through microfluidics. Biosensors and Bioelectronics, 2016, 77, 428-434.	10.1	18
41	Ultrafast Single-Cell Level Enzymatic Tumor Profiling. Analytical Chemistry, 2019, 91, 1277-1285.	6.5	18
42	Hybrid hydrogel reactor with metalâ€“organic framework for biomimetic cascade catalysis. Chemical Engineering Journal, 2021, 425, 131482.	12.7	16
43	Nanoâ€inâ€Micro Smart Hydrogel Composite for a Rapid Sensitive Immunoassay. Advanced Healthcare Materials, 2019, 8, e1801277.	7.6	15
44	The Role of Single-Cell Technology in the Study and Control of Infectious Diseases. Cells, 2020, 9, 1440.	4.1	15
45	A Miniature On-Chip Methane Sensor Based on an Ultra-Low Loss Waveguide and a Micro-Ring Resonator Filter. Micromachines, 2017, 8, 160.	2.9	13
46	High-throughput functional profiling of single adherent cells via hydrogel drop-screen. Lab on A Chip, 2021, 21, 764-774.	6.0	13
47	A one-step hydrothermal route to programmable stimuli-responsive hydrogels. Chemical Communications, 2015, 51, 6617-6620.	4.1	10
48	Multiplexed Single-Cell Leukocyte Enzymatic Secretion Profiling from Whole Blood Reveals Patient-Specific Immune Signature. Analytical Chemistry, 2021, 93, 4374-4382.	6.5	10
49	Future foods: Design, fabrication and production through microfluidics. Biomaterials, 2022, 287, 121631.	11.4	10
50	Functional Stem Cell Sorting via Integrative Droplet Synchronization. Analytical Chemistry, 2020, 92, 7915-7923.	6.5	8
51	Microfluidic sample preparation for respiratory virus detection: A review. Biomicrofluidics, 2021, 15, 011503.	2.4	8
52	Microfluidic compartmentalization to identify gene biomarkers of infection. Biomicrofluidics, 2020, 14, 061502.	2.4	8
53	Intelligent optofluidic analysis for ultrafast single bacterium profiling of cellulose production and morphology. Lab on A Chip, 2020, 20, 626-633.	6.0	7
54	Nanoplasmon-enhanced drop-screen for high throughput single-cell nucleocytoplasmic miRNA profiling. Lab on A Chip, 2020, 20, 1939-1946.	6.0	7

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55	Monoglycerides in Oils. , 2011, , 173-201.		6
56	Sub-Micro Particle Matter Detection for Metal 3-D Printing Workshop. IEEE Sensors Journal, 2019, 19, 4932-4939.	4.7	6
57	Fast-responsive hydrogel as an injectable pump for rapid on-demand fluidic flow control. Biomicrofluidics, 2017, 11, 034107.	2.4	5
58	Rapid microfluidic platform for screening and enrichment of cells secreting virus neutralizing antibodies. Lab on A Chip, 2022, 22, 2578-2589.	6.0	4
59	Heterogeneous multi-compartmental DNA hydrogel particles prepared via microfluidic assembly for lymphocyte-inspired precision medicine. Nanoscale, 2021, 13, 20531-20540.	5.6	3
60	Drug Delivery: Near-Infrared Light Responsive Multi-Compartmental Hydrogel Particles Synthesized Through Droplets Assembly Induced by Superhydrophobic Surface (Small 23/2014). Small, 2014, 10, 4984-4984.	10.0	2
61	Organic nanoparticle-doped microdroplets as dual-modality contrast agents for ultrasound microvascular flow and photoacoustic imaging. Scientific Reports, 2020, 10, 17009.	3.3	1
62	Near-infrared photothermal activation of microgels incorporating polypyrrole nanotransducers through droplet microfluidics. , 2013, , .		0
63	Singleâ€Bacterium Analysis: Single Upconversion Nanoparticleâ€“Bacterium Cotrapping for Singleâ€Bacterium Labeling and Analysis (Small 14/2017). Small, 2017, 13, .	10.0	0
64	Tissue Engineering: Effective Light Directed Assembly of Building Blocks with Microscale Control (Small 24/2017). Small, 2017, 13, .	10.0	0
65	Single-cell assays using integrated continuous-flow microfluidics. Methods in Enzymology, 2019, 628, 59-94.	1.0	0
66	Intelligent Biohybrid Robotic Systems: A Remotely Controlled Transformable Soft Robot Based on Engineered Cardiac Tissue Construct (Small 18/2019). Small, 2019, 15, 1970095.	10.0	0