Sunghoon Kwon

List of Publications by Year
in descending order

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90 papers	4,393 citations	201385 27 h-index	110170 64 g-index
100 all docs	100 docs citations	100 times ranked	6172 citing authors

#	Article	IF	Citations
1	Structural colour printing using a magnetically tunable and lithographically fixable photonic crystal. Nature Photonics, 2009, 3, 534-540.	15.6	617
2	Programming magnetic anisotropy in polymericÂmicroactuators. Nature Materials, 2011, 10, 747-752.	13.3	431
3	Colour-barcoded magnetic microparticles for multiplexed bioassays. Nature Materials, 2010, 9, 745-749.	13.3	351
4	Guided and fluidic self-assembly of microstructures using railed microfluidicÂchannels. Nature Materials, 2008, 7, 581-587.	13.3	318
5	A rapid antimicrobial susceptibility test based on single-cell morphological analysis. Science Translational Medicine, 2014, 6, 267ra174.	5.8	246
6	Biomimetic Microfingerprints for Antiâ€Counterfeiting Strategies. Advanced Materials, 2015, 27, 2083-2089.	11.1	243
7	Lithographically Encoded Polymer Microtaggant Using Highâ€Capacity and Errorâ€Correctable QR Code for Antiâ€Counterfeiting of Drugs. Advanced Materials, 2012, 24, 5924-5929.	11.1	192
8	Rapid antibiotic susceptibility testing by tracking single cell growth in a microfluidic agarose channel system. Lab on A Chip, 2013, 13, 280-287.	3.1	168
9	Optofluidic maskless lithography system for real-time synthesis of photopolymerized microstructures in microfluidic channels. Applied Physics Letters, 2007, 91, .	1.5	150
10	Biomimetic 3D Tissue Models for Advanced High-Throughput Drug Screening. Journal of the Association for Laboratory Automation, 2015, 20, 201-215.	2.8	129
11	Inertial focusing of non-spherical microparticles. Applied Physics Letters, 2011, 99, .	1.5	105
12	Three-dimensional fabrication of heterogeneous microstructures using soft membrane deformation and optofluidic maskless lithography. Lab on A Chip, 2009, 9, 1670.	3.1	90
13	A fidget spinner for the point-of-care diagnosis of urinary tract infection. Nature Biomedical Engineering, 2020, 4, 591-600.	11.6	87
14	Direct, rapid antimicrobial susceptibility test from positive blood cultures based on microscopic imaging analysis. Scientific Reports, 2017, 7, 1148.	1.6	80
15	Stereotypic neutralizing V _H antibodies against SARS-CoV-2 spike protein receptor binding domain in patients with COVID-19 and healthy individuals. Science Translational Medicine, 2021, 13, .	5.8	72
16	One-step pipetting and assembly of encoded chemical-laden microparticles for high-throughput multiplexed bioassays. Nature Communications, 2014, 5, 3468.	5.8	62
17	High information capacity DNA-based data storage with augmented encoding characters using degenerate bases. Scientific Reports, 2019, 9, 6582.	1.6	53
18	Niche applications of magnetically responsive photonic structures. Journal of Materials Chemistry, 2010, 20, 5777.	6.7	48

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19	Self-organization of maze-like structures via guided wrinkling. Science Advances, 2017, 3, e1700071.	4.7	44
20	Fine-tuned grayscale optofluidic maskless lithography for three-dimensional freeform shape microstructure fabrication. Optics Letters, 2014, 39, 5162.	1.7	43
21	Multiscale Cues Drive Collective Cell Migration. Scientific Reports, 2016, 6, 29749.	1.6	40
22	DNA Microâ€Disks for the Management of DNAâ€Based Data Storage with Index and Writeâ€Onceâ€“Readâ€Many (WORM) Memory Features. Advanced Materials, 2020, 32, e2001249.	11.1	40
23	â€˜Shotgun DNA synthesisâ€™ for the high-throughput construction of large DNA molecules. Nucleic Acids Research, 2012, 40, e140-e140.	6.5	37
24	Shape-encoded silica microparticles for multiplexed bioassays. Chemical Communications, 2015, 51, 12130-12133.	2.2	34
25	Photoluminescence Characteristics of Sr3SiO5:Eu2+ Yellow Phosphors Synthesized by Solid-State Method and Pechini Process. Journal of the Electrochemical Society, 2011, 158, J330.	1.3	32
26	Embedded Biofilm, a New Biofilm Model Based on the Embedded Growth of Bacteria. Applied and Environmental Microbiology, 2015, 81, 211-219.	1.4	31
27	Rapid drug susceptibility test of Mycobacterium tuberculosis using microscopic time-lapse imaging in an agarose matrix. Applied Microbiology and Biotechnology, 2016, 100, 2355-2365.	1.7	30
28	A high-throughput optomechanical retrieval method for sequence-verified clonal DNA from the NGS platform. Nature Communications, 2015, 6, 6073.	5.8	29
29	Oneâ€Step Generation of a Drugâ€Releasing Hydrogel Microarrayâ€Onâ€Aâ€Chip for Largeâ€Scale Sequential Drug Combination Screening. Advanced Science, 2019, 6, 1801380.	5.6	29
30	A Reconfigurable DNA Accordion Rack. Angewandte Chemie - International Edition, 2018, 57, 2811-2815.	7.2	28
31	Optofluidic in situ maskless lithography of charge selective nanoporous hydrogel for DNA preconcentration. Biomicrofluidics, 2010, 4, 43014.	1.2	27
32	Lithographic resolution enhancement of a maskless lithography system based on a wobulation technique for flow lithography. Applied Physics Letters, 2016, 109, .	1.5	27
33	Idiopathic hypereosinophilia is clonal disorder? Clonality identified by targeted sequencing. PLoS ONE, 2017, 12, e0185602.	1.1	27
34	Liquid-capped encoded microcapsules for multiplex assays. Lab on A Chip, 2017, 17, 429-437.	3.1	26
35	Whole Genome Sequencing of Single Circulating Tumor Cells Isolated by Applying a Pulsed Laser to Cellâ€Capturing Microstructures. Small, 2019, 15, e1902607.	5.2	26
36	Direct 2D-to-3D transformation of pen drawings. Science Advances, 2021, 7, .	4.7	25

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37	Photopatterned microswimmers with programmable motion without external stimuli. Nature Communications, 2021, 12, 4724.	5.8	21
38	In Situ Fabrication and Actuation of Polymer Magnetic Microstructures. Journal of Microelectromechanical Systems, 2011, 20, 785-787.	1.7	20
39	PHLI-seq: constructing and visualizing cancer genomic maps in 3D by phenotype-based high-throughput laser-aided isolation and sequencing. Genome Biology, 2018, 19, 158.	3.8	18
40	Evaluating Tumor Evolution via Genomic Profiling of Individual Tumor Spheroids in a Malignant Ascites. Scientific Reports, 2018, 8, 12724.	1.6	17
41	High-throughput retrieval of physical DNA for NGS-identifiable clones in phage display library. MAbs, 2019, 11, 532-545.	2.6	16
42	Spatial epitranscriptomics reveals A-to-I editome specific to cancer stem cell microniches. Nature Communications, 2022, 13, 2540.	5.8	15
43	Towards encoded particles for highly multiplexed colorimetric point of care autoantibody detection. Lab on A Chip, 2017, 17, 549-556.	3.1	14
44	ELIPatch, a thumbnail-size patch with immunospot array for multiplexed protein detection from human skin surface. Biomicrofluidics, 2018, 12, 031101.	1.2	14
45	OPENchip: an on-chip in situ molecular profiling platform for gene expression analysis and oncogenic mutation detection in single circulating tumour cells. Lab on A Chip, 2020, 20, 912-922.	3.1	14
46	Free-floating amphiphilic picoliter droplet carriers for multiplexed liquid loading in a microfluidic channel. Microfluidics and Nanofluidics, 2012, 13, 511-518.	1.0	13
47	Barcode-free next-generation sequencing error validation for ultra-rare variant detection. Nature Communications, 2019, 10, 977.	5.8	13
48	Gradient-Wrinkled Microparticle with Grayscale Lithography Controlling the Cross-Linking Densities for High Security Level Anti-Counterfeiting Strategies. ACS Omega, 2021, 6, 2121-2126.	1.6	13
49	Purification of multiplex oligonucleotide libraries by synthesis and selection. Nature Biotechnology, 2022, 40, 47-53.	9.4	13
50	Photocurable Polymer Nanocomposites for Magnetic, Optical, and Biological Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 324-335.	1.9	12
51	Uniform Drug Loading into Prefabricated Microparticles by Freeze-Drying. Particle and Particle Systems Characterization, 2017, 34, 1600427.	1.2	12
52	Cell-Free Bacteriophage Genome Synthesis Using Low-Cost Sequence-Verified Array-Synthesized Oligonucleotides. ACS Synthetic Biology, 2020, 9, 1376-1384.	1.9	12
53	Hierarchical shape-by-shape assembly of microparticles for micrometer-scale viral delivery of two different genes. Biomicrofluidics, 2018, 12, 031102.	1.2	10
54	Targeted sequencing aids in identifying clonality in chronic myelomonocytic leukemia. Leukemia Research, 2019, 84, 106190.	0.4	9

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55	Nasopharyngeal Type-I Interferon for Immediately Available Prophylaxis Against Emerging Respiratory Viral Infections. Frontiers in Immunology, 2021, 12, 660298.	2.2	8
56	An encoded viral micropatch for multiplex cell-based assays through localized gene delivery. Lab on A Chip, 2017, 17, 2435-2442.	3.1	7
57	A rapid culture system uninfluenced by an inoculum effect increases reliability and convenience for drug susceptibility testing of Mycobacterium tuberculosis. Scientific Reports, 2018, 8, 8651.	1.6	7
58	Divide and conquer: A perspective on biochips for single-cell and rare-molecule analysis by next-generation sequencing. APL Bioengineering, 2019, 3, 020901.	3.3	7
59	Fiber composite slices for multiplexed immunoassays. Biomicrofluidics, 2015, 9, 044109.	1.2	6
60	A Reconfigurable DNA Accordion Rack. Angewandte Chemie, 2018, 130, 2861-2865.	1.6	6
61	Monozygotic twins with shared de novo GATA2 mutation but dissimilar phenotypes due to differential promoter methylation. Leukemia and Lymphoma, 2019, 60, 1053-1061.	0.6	6
62	A high-throughput cell culture system based on capillary and centrifugal actions for rapid antimicrobial susceptibility testing. Lab on A Chip, 2020, 20, 4552-4560.	3.1	6
63	Recent Advances in Polymer Additive Engineering for Diagnostic and Therapeutic Hydrogels. International Journal of Molecular Sciences, 2022, 23, 2955.	1.8	6
64	Biomimetics: Biomimetic Microfingerprints for Anti-Counterfeiting Strategies (Adv. Mater. 12/2015). Advanced Materials, 2015, 27, 2123-2123.	11.1	4
65	High-throughput construction of multiple cas9 gene variants via assembly of high-depth tiled and sequence-verified oligonucleotides. Nucleic Acids Research, 2018, 46, e55-e55.	6.5	4
66	Characteristics of WaldenstrÃ¶m Macroglobulinemia in Korean Patients According to Mutational Status of MYD88 and CXCR4: Analysis Using Ultra-Deep Sequencing. Clinical Lymphoma, Myeloma and Leukemia, 2019, 19, e496-e505.	0.2	4
67	Efficient Selection of Antibodies Reactive to Homologous Epitopes on Human and Mouse Hepatocyte Growth Factors by Next-Generation Sequencing-Based Analysis of the B Cell Repertoire. International Journal of Molecular Sciences, 2019, 20, 417.	1.8	4
68	Microspinning: Local Surface Mixing via Rotation of Magnetic Microparticles for Efficient Small-Volume Bioassays. Micromachines, 2020, 11, 175.	1.4	4
69	A High-Throughput Single-Clone Phage Fluorescence Microwell Immunoassay and Laser-Driven Clonal Retrieval System. Biomolecules, 2020, 10, 517.	1.8	4
70	Induction of Anti-Aquaporin 5 Autoantibody Production by Immunization with a Peptide Derived from the Aquaporin of Prevotella melaninogenica Leads to Reduced Salivary Flow in Mice. Immune Network, 2021, 21, e34.	1.6	4
71	Sorting microparticles by orientation using wedged-fin and railed microfluidics. , 2009, , .		3
72	Phenotype-based single cell sequencing identifies diverse genetic subclones in CD133 positive cancer stem cells. Biochemical and Biophysical Research Communications, 2021, 558, 209-215.	1.0	3

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73	Microâ€Concentrator Photovoltaics Using Fluidic Selfâ€Assembly Technology. Advanced Materials Technologies, 2021, 6, 2100312.	3.0	3
74	Color-Coded Droplets and Microscopic Image Analysis for Multiplexed Antibiotic Susceptibility Testing. Biosensors, 2021, 11, 283.	2.3	3
75	Optofluidic Maskless Lithography System. , 2007, , .		2
76	Amplification of a minimally biased antibody repertoire for in vitro display using a universal primer-based amplification method. Journal of Immunological Methods, 2021, 496, 113089.	0.6	2
77	Ampouleâ€Like Microvolume Containers with Transparent Code for Easyâ€toâ€Use and Spaceâ€Saving Storage of Smallâ€Volume Biospecimens. Advanced Materials Technologies, 0, , 2101266.	3.0	2
78	One-step assembly of barcoded planar microparticles for efficient readout of multiplexed immunoassay. Lab on A Chip, 2022, , .	3.1	2
79	Magnetochromatic Microspheres: Real-Time Optofluidic Synthesis of Magnetochromatic Microspheres for Reversible Structural Color Patterning (Small 9/2011). Small, 2011, 7, 1142-1142.	5.2	1
80	Design and Synthesis of a Reconfigurable DNA Accordion Rack. Journal of Visualized Experiments, 2018, , .	0.2	1
81	Optics and Fluidics. Microtechnology and MEMS, 2020, , 197-234.	0.2	1
82	Smart scalable systems: A bottom-up approach of building complex systems. , 2009, , .		0
83	Optofluidic packaging of silicon microchips for applications in light emitting devices. , 2009, , .		0
84	Liquid capped encoded microshell and partipetting for untraplex liquid assay. , 2012, , .		0
85	Rapid antibiotic susceptibility test: Commercialization of life saving MEMS devices. , 2017, , .		0
86	Rapid antibiotic susceptibility testing system: Life saving bioMEMS devices. , 2017, , .		0
87	Laser-based single microstructure isolation platform for whole genome sequencing of single circulating tumor cells. , 2018, , .		0
88	Advances in Tumor Sampling and Sequencing in Breast Cancer and their Application in Precision Diagnostics and Therapeutics. Advances in Experimental Medicine and Biology, 2021, 1187, 215-244.	0.8	0
89	Dual antithrombotic therapy on early clinical outcomes in patients with atrial fibrillation after percutaneous coronary intervention: a nationwide study in the era of NOAC. European Heart Journal, 2021, 42, .	1.0	0
90	Antithrombotic therapy for patients with atrial fibrillation and stable coronary artery disease of 1-year and 3-year after percutaneous coronary intervention: a nationwide population-based study. European Heart Journal, 2021, 42, .	1.0	0