Samuel K Sia

List of Publications by Year
in descending order

70 papers	8,500 citations	126858 33 h-index	106281 65 g-index
75 all docs	75 docs citations	75 times ranked	11143 citing authors

#	Article	IF	Citations
1	Microfluidic devices fabricated in Poly(dimethylsiloxane) for biological studies. Electrophoresis, 2003, 24, 3563-3576.	1.3	1,532
2	Commercialization of microfluidic point-of-care diagnostic devices. Lab on A Chip, 2012, 12, 2118.	3.1	1,105
3	Lab-on-a-chip devices for global health: Past studies and future opportunities. Lab on A Chip, 2007, 7, 41-57.	3.1	700
4	Microfluidics-based diagnostics of infectious diseases in the developing world. Nature Medicine, 2011, 17, 1015-1019.	15.2	654
5	Point-of-Care Diagnostics: Recent Developments in a Connected Age. Analytical Chemistry, 2017, 89, 102-123.	3.2	386
6	A smartphone dongle for diagnosis of infectious diseases at the point of care. Science Translational Medicine, 2015, 7, 273re1.	5.8	370
7	An Integrated Approach to a Portable and Low-Cost Immunoassay for Resource-Poor Settings. Angewandte Chemie - International Edition, 2004, 43, 498-502.	7.2	267
8	Microfluidics and point-of-care testing. Lab on A Chip, 2008, 8, 1982.	3.1	237
9	In situ collagen assembly for integrating microfabricated three-dimensional cell-seeded matrices. Nature Materials, 2008, 7, 636-640.	13.3	214
10	Short constrained peptides that inhibit HIV-1 entry. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14664-14669.	3.3	192
11	Human Skin Constructs with Spatially Controlled Vasculature Using Primary and iPSCâ€Derived Endothelial Cells. Advanced Healthcare Materials, 2016, 5, 1800-1807.	3.9	185
12	Torque-Actuated Valves for Microfluidics. Analytical Chemistry, 2005, 77, 4726-4733.	3.2	183
13	Structure of Cardiac Muscle Troponin C Unexpectedly Reveals a Closed Regulatory Domain. Journal of Biological Chemistry, 1997, 272, 18216-18221.	1.6	181
14	Refined X-ray crystallographic structure of the poliovirus 3C gene product 1 1Edited By D. Rees. Journal of Molecular Biology, 1997, 273, 1032-1047.	2.0	181
15	Reagent-Loaded Cartridges for Valveless and Automated Fluid Delivery in Microfluidic Devices. Analytical Chemistry, 2005, 77, 64-71.	3.2	155
16	Dynamic Hydrogels: Switching of 3D Microenvironments Using Twoâ€Component Naturally Derived Extracellular Matrices. Advanced Materials, 2010, 22, 686-691.	11.1	148
17	Patterning Multiple Aligned Self-Assembled Monolayers Using Light. Langmuir, 2004, 20, 9080-9088.	1.6	146
18	Additive manufacturing of hydrogel-based materials for next-generation implantable medical devices. Science Robotics, 2017, 2, .	9.9	131

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19	Mixing with bubbles: a practical technology for use with portable microfluidic devices. Lab on A Chip, 2006, 6, 207-212.	3.1	129
20	Real-Time Microfluidic System for Studying Mammalian Cells in 3D Microenvironments. Analytical Chemistry, 2008, 80, 3640-3647.	3.2	93
21	Effect of volume- and time-based constraints on capture of analytes in microfluidic heterogeneous immunoassays. Lab on A Chip, 2008, 8, 2062.	3.1	88
22	Microfluidic CD4+ T-Cell Counting Device Using Chemiluminescence-Based Detection. Analytical Chemistry, 2010, 82, 36-40.	3.2	80
23	Smartphone dongle for simultaneous measurement of hemoglobin concentration and detection of HIV antibodies. Lab on A Chip, 2015, 15, 3514-3520.	3.1	77
24	Assembly of complex cell microenvironments using geometrically docked hydrogel shapes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4551-4556.	3.3	76
25	Mobile Device for Disease Diagnosis and Data Tracking in Resource-Limited Settings. Clinical Chemistry, 2013, 59, 629-640.	1.5	70
26	Engineering extracellular matrix structure in 3D multiphase tissues. Biomaterials, 2011, 32, 8067-8076.	5.7	67
27	Direct patterning of composite biocompatible microstructures using microfluidics. Lab on A Chip, 2007, 7, 574.	3.1	64
28	Protein grafting of an HIV-1-inhibiting epitope. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 9756-9761.	3.3	63
29	Microscale Control of Stiffness in a Cellâ€Adhesive Substrate Using Microfluidicsâ€Based Lithography. Angewandte Chemie - International Edition, 2009, 48, 7188-7192.	7.2	55
30	Microfluidics-based point-of-care test for serodiagnosis of Lyme Disease. Scientific Reports, 2016, 6, 35069.	1.6	51
31	Point-of-Care Technologies for Precision Cardiovascular Care and Clinical Research. JACC Basic To Translational Science, 2016, 1, 73-86.	1.9	42
32	Actuation of elastomeric microvalves in point-of-care settings using handheld, battery-powered instrumentation. Lab on A Chip, 2010, 10, 1618.	3.1	40
33	Soft medical microrobots: Design components and system integration. Applied Physics Reviews, 2019, 6, 041305.	5.5	40
34	A microfabricated porous collagen-based scaffold as prototype for skin substitutes. Biomedical Microdevices, 2008, 10, 459-467.	1.4	34
35	Point-of-care diagnostics: recent developments in a pandemic age. Lab on A Chip, 2021, 21, 4517-4548.	3.1	34
36	Solid-phase fluorescent labeling reaction of picomole amounts of insulin in very dilute solutions and their analysis by capillary electrophoresis. Electrophoresis, 1995, 16, 534-540.	1.3	33

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37	SMARTtest: A Smartphone App to Facilitate HIV and Syphilis Self- and Partner-Testing, Interpretation of Results, and Linkage to Care. AIDS and Behavior, 2020, 24, 1560-1573.	1.4	33
38	An implantable compound-releasing capsule triggered on demand by ultrasound. Scientific Reports, 2016, 6, 22803.	1.6	31
39	A Multiplexed Serologic Test for Diagnosis of Lyme Disease for Point-of-Care Use. Journal of Clinical Microbiology, 2019, 57, .	1.8	27
40	Uncovering the behaviors of individual cells within a multicellular microvascular community. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5133-5138.	3.3	23
41	A direct tissue-grafting approach to increasing endogenous brown fat. Scientific Reports, 2018, 8, 7957.	1.6	22
42	Integrating user behavior with engineering design of point-of-care diagnostic devices: theoretical framework and empirical findings. Lab on A Chip, 2019, 19, 2241-2255.	3.1	21
43	Injectable Therapeutic Organoids Using Sacrificial Hydrogels. IScience, 2020, 23, 101052.	1.9	19
44	Synthetic tissue biology: Tissue engineering meets synthetic biology. Birth Defects Research Part C: Embryo Today Reviews, 2007, 81, 354-361.	3.6	18
45	Biosensors for Personal Mobile Health: A System Architecture Perspective. Advanced Materials Technologies, 2020, 5, 1900720.	3.0	18
46	Space- and time-resolved spectrophotometry in microsystems. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10035-10039.	3.3	16
47	Strongly Binding Cellâ€Adhesive Polypeptides of Programmable Valencies. Angewandte Chemie - International Edition, 2010, 49, 1971-1975.	7.2	16
48	Challenges and promises in modeling dermatologic disorders with bioengineered skin. Experimental Biology and Medicine, 2014, 239, 1215-1224.	1.1	16
49	Ultrasoundâ€Responsive Aqueous Twoâ€Phase Microcapsules for Onâ€Demand Drug Release. Angewandte Chemie - International Edition, 2022, 61, .	7.2	14
50	Competitive stem cell recruitment by multiple cytotactic cues. Lab on A Chip, 2013, 13, 1156.	3.1	13
51	Share and share alike. Nature Biotechnology, 2015, 33, 1224-1228.	9.4	13
52	Acceptability and Use of a Dual HIV/Syphilis Rapid Test and Accompanying Smartphone App to Facilitate Self- and Partner-Testing Among Cisgender Men and Transgender Women Who Have Sex with Men. AIDS and Behavior, 2022, 26, 35-46.	1.4	13
53	Hydrogel Microfilaments toward Intradermal Health Monitoring. IScience, 2019, 21, 328-340.	1.9	12
54	Rule Out Acute Kidney Injury in the Emergency Department With a Urinary Dipstick. Kidney International Reports, 2020, 5, 1982-1992.	0.4	9

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55	An Additive Manufacturing Technique for the Facile and Rapid Fabrication of Hydrogel-based Micromachines with Magnetically Responsive Components. Journal of Visualized Experiments, 2018, , .	0.2	8
56	Cutting edge: Thin, lightweight, foldable thermochromic displays on paper. Lab on A Chip, 2009, 9, 2763.	3.1	7
57	Personalized Disease Models on a Chip. Cell Systems, 2016, 3, 416-418.	2.9	7
58	Bringing Real-Time Geospatial Precision to HIV Surveillance Through Smartphones: Feasibility Study. JMIR Public Health and Surveillance, 2018, 4, e11203.	1.2	7
59	Toward a Microfluidics-Based Home Male Fertility Test. Clinical Chemistry, 2016, 62, 421-422.	1.5	5
60	Sweet solution to sensing. Nature Chemistry, 2011, 3, 659-660.	6.6	4
61	Ultrasoundâ€Responsive Aqueous Twoâ€Phase Microcapsules for Onâ€Demand Drug Release. Angewandte Chemie, 2022, 134, .	1.6	4
62	Rapid video-based deep learning of cognate versus non-cognate T cell-dendritic cell interactions. Scientific Reports, 2022, 12, 559.	1.6	3
63	Patterning micro-stiffness in cell-adhesive substrate using microfluidics-based lithography. , 2010, , .		2
64	Improving Present and Future Patient Care. Point of Care, 2015, 14, 124-126.	0.5	2
65	Evolution of Materials in Novel Point-of-Care Diagnostics. Clinical Chemistry, 2018, 64, 1125-1126.	1.5	2
66	Microfluidics for Engineering 3D Tissues and Cellular Microenvironments. , 2013, , 53-79.		1
67	Cover Picture: Microscale Control of Stiffness in a Cell-Adhesive Substrate Using Microfluidics-Based Lithography (Angew. Chem. Int. Ed. 39/2009). Angewandte Chemie - International Edition, 2009, 48, 7103-7103.	7.2	0
68	Reversible switching of 3D microenvironments in extracellular matrices and effects on collagen fibers and cell morphology. , 2010, , .		0
69	Point-of-Care Microdevices for Global Health Diagnostics of Infectious Diseases. , 2013, , 115-133.		0
70	On the Path from Materials Chemistry to Clinical Use. Clinical Chemistry, 2014, 60, 573-574.	1.5	0