

Christopher T Culbertson

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67

papers

4,183

citations

29

h-index

64

g-index

70

ext. papers

4,499

ext. citations

6

avg, IF

5.17

L-index

#	Paper	IF	Citations
67	Diffusion coefficient measurements in microfluidic devices. <i>Talanta</i> , 2002 , 56, 365-73	6.2	353
66	Microfluidic devices for the high-throughput chemical analysis of cells. <i>Analytical Chemistry</i> , 2003 , 75, 5646-55	7.8	309
65	Microchip Structures for Submillisecond Electrophoresis. <i>Analytical Chemistry</i> , 1998 , 70, 3476-3480	7.8	271
64	Paper-based microfluidic devices for analysis of clinically relevant analytes present in urine and saliva. <i>Analytical and Bioanalytical Chemistry</i> , 2010 , 397, 1821-9	4.4	210
63	Flow cytometry of Escherichia coli on microfluidic devices. <i>Analytical Chemistry</i> , 2001 , 73, 5334-8	7.8	205
62	Two-dimensional electrochromatography/capillary electrophoresis on a microchip. <i>Analytical Chemistry</i> , 2001 , 73, 2669-74	7.8	186
61	Sol-gel modified poly(dimethylsiloxane) microfluidic devices with high electroosmotic mobilities and hydrophilic channel wall characteristics. <i>Analytical Chemistry</i> , 2005 , 77, 1414-22	7.8	181
60	Microchip flow cytometry using electrokinetic focusing. <i>Analytical Chemistry</i> , 1999 , 71, 4173-7	7.8	180
59	High-efficiency, two-dimensional separations of protein digests on microfluidic devices. <i>Analytical Chemistry</i> , 2003 , 75, 3758-64	7.8	178
58	Microchip devices for high-efficiency separations. <i>Analytical Chemistry</i> , 2000 , 72, 5814-9	7.8	172
57	Dispersion Sources for Compact Geometries on Microchips. <i>Analytical Chemistry</i> , 1998 , 70, 3781-3789	7.8	167
56	Micro total analysis systems: fundamental advances and biological applications. <i>Analytical Chemistry</i> , 2014 , 86, 95-118	7.8	142
55	Effects of storage temperature on airway exosome integrity for diagnostic and functional analyses. <i>Journal of Extracellular Vesicles</i> , 2017 , 6, 1359478	16.4	125
54	Electroosmotically induced hydraulic pumping with integrated electrodes on microfluidic devices. <i>Analytical Chemistry</i> , 2001 , 73, 4045-9	7.8	116
53	Surface engineering of poly(dimethylsiloxane) microfluidic devices using transition metal sol-gel chemistry. <i>Langmuir</i> , 2006 , 22, 4445-51	4	103
52	Electroosmotically induced hydraulic pumping on microchips: differential ion transport. <i>Analytical Chemistry</i> , 2000 , 72, 2285-91	7.8	102
51	. <i>Analytical Chemistry</i> , 1994 , 66, 955-962	7.8	98

50	Synthesis and Photophysical Properties of Mono(2,2',2''-terpyridine) Complexes of Ruthenium(II). <i>Inorganic Chemistry</i> , 1995 , 34, 3385-3395	5.1	88
49	Single-cell manipulation and analysis using microfluidic devices. <i>Analytical and Bioanalytical Chemistry</i> , 2007 , 387, 9-12	4.4	80
48	Micro Total Analysis Systems: Fundamental Advances and Applications. <i>Analytical Chemistry</i> , 2016 , 88, 320-38	7.8	77
47	Effects of the electric field distribution on microchip valving performance. <i>Electrophoresis</i> , 2000 , 21, 100-6	3.6	74
46	Integrated microchip-device for the digestion, separation and postcolumn labeling of proteins and peptides. <i>Biomedical Applications</i> , 2000 , 745, 243-9		66
45	High efficiency micellar electrokinetic chromatography of hydrophobic analytes on poly(dimethylsiloxane) microchips. <i>Analyst, The</i> , 2006 , 131, 194-201	5	58
44	Integration of a nanostructured dielectrophoretic device and a surface-enhanced Raman probe for highly sensitive rapid bacteria detection. <i>Nanoscale</i> , 2015 , 7, 3726-36	7.7	56
43	Chemical analysis of single mammalian cells with microfluidics. Strategies for culturing, sorting, trapping, and lysing cells and separating their contents on chips. <i>Analytical Chemistry</i> , 2007 , 79, 2614-21	7.8	50
42	An integrated microfluidic device for monitoring changes in nitric oxide production in single T-lymphocyte (Jurkat) cells. <i>Analytical Chemistry</i> , 2013 , 85, 10188-95	7.8	37
41	Cellular Analysis Using Microfluidics. <i>Analytical Chemistry</i> , 2018 , 90, 65-85	7.8	35
40	Static and dynamic acute cytotoxicity assays on microfluidic devices. <i>Analytical Chemistry</i> , 2005 , 77, 667-72	7.8	31
39	Lowering the UV Absorbance Detection Limit in Capillary Zone Electrophoresis Using a Single Linear Photodiode Array Detector. <i>Analytical Chemistry</i> , 1998 , 70, 2629-38	7.8	30
38	Microchip separations in reduced-gravity and hypergravity environments. <i>Analytical Chemistry</i> , 2005 , 77, 7933-40	7.8	29
37	Monitoring intracellular nitric oxide production using microchip electrophoresis and laser-induced fluorescence detection. <i>Analytical Methods</i> , 2012 , 4, 414	3.2	27
36	Effects of Microfabrication Processing on the Electrochemistry of Carbon Nanofiber Electrodes. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 10722-10728	3.4	27
35	Electrokinetic trapping using titania nanoporous membranes fabricated using sol-gel chemistry on microfluidic devices. <i>Electrophoresis</i> , 2009 , 30, 3160-7	3.6	25
34	Manipulation of bacteriophages with dielectrophoresis on carbon nanofiber nanoelectrode arrays. <i>Electrophoresis</i> , 2013 , 34, 1123-30	3.6	24
33	Synthesis and characterization of a poly(dimethylsiloxane)-poly(ethylene oxide) block copolymer for fabrication of amphiphilic surfaces on microfluidic devices. <i>Langmuir</i> , 2009 , 25, 10390-6	4	21

32	Micellar electrokinetic chromatography of fluorescently labeled proteins on poly(dimethylsiloxane)-based microchips. <i>Electrophoresis</i> , 2006 , 27, 2933-9	3.6	21
31	Synthesis and pharmacology of irreversible affinity labels as potential cocaine antagonists: aryl 1,4-dialkylpiperazines related to GBR-12783. <i>European Journal of Pharmacology</i> , 1992 , 220, 173-80	5.3	20
30	Generation of nonbiased hydrodynamic injections on microfluidic devices using integrated dielectric elastomer actuators. <i>Analytical Chemistry</i> , 2009 , 81, 8942-8	7.8	19
29	Demonstration of an integrated electroactive polymer actuator on a microfluidic electrophoresis device. <i>Lab on A Chip</i> , 2009 , 9, 2076-84	7.2	18
28	Electrophoretic separation of proteins on microchips. <i>Journal of Separation Science</i> , 2000 , 12, 407-411		17
27	Dielectrophoretic capture of E. coli cells at micropatterned nanoelectrode arrays. <i>Electrophoresis</i> , 2011 , 32, 2358-65	3.6	14
26	Increasing the resolving power of capillary electrophoresis through electroosmotic flow control using radial fields. <i>Journal of Separation Science</i> , 1999 , 11, 167-174		14
25	High-throughput microfluidic device for single cell analysis using multiple integrated soft lithographic pumps. <i>Electrophoresis</i> , 2016 , 37, 1337-44	3.6	14
24	Early detection of pancreatic cancers in liquid biopsies by ultrasensitive fluorescence nanobiosensors. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2018 , 14, 1823-1832	6	13
23	Single-molecule studies of oligomer extraction and uptake of dyes in poly(dimethylsiloxane) films. <i>Analytical Chemistry</i> , 2009 , 81, 10089-96	7.8	12
22	Out-of-plane integration of a multimode optical fiber for single particle/cell detection at multiple points on a microfluidic device with applications to particle/cell counting, velocimetry, size discrimination and the analysis of single cell lysate injections. <i>Lab on A Chip</i> , 2016 , 17, 145-155	7.2	10
21	Integrating Optical Fiber Bridges in Microfluidic Devices to Create Multiple Excitation/Detection Points for Single Cell Analysis. <i>Analytical Chemistry</i> , 2016 , 88, 9920-9925	7.8	10
20	Integrated microfluidic device for the separation and electrochemical detection of catechol estrogen-derived DNA adducts. <i>Analytical and Bioanalytical Chemistry</i> , 2011 , 399, 519-24	4.4	10
19	Lowering the UV absorbance detection limit and increasing the sensitivity of capillary electrophoresis using a dual linear photodiode array detector and signal averaging. <i>Journal of Separation Science</i> , 1999 , 11, 652-662		9
18	A novel, environmentally friendly sodium lauryl ether sulfate-, cocamidopropyl betaine-, cocamide monoethanolamine-containing buffer for MEKC on microfluidic devices. <i>Electrophoresis</i> , 2008 , 29, 4900-3	3.6	8
17	The effect of photomask resolution on separation efficiency on microfabricated devices. <i>Lab on A Chip</i> , 2006 , 6, 1355-61	7.2	7
16	Single cell analysis on microfluidic devices. <i>Methods in Molecular Biology</i> , 2006 , 339, 203-16	1.4	6
15	Single molecule studies of solvent-dependent diffusion and entrapment in poly(dimethylsiloxane) thin films. <i>Analytical Chemistry</i> , 2008 , 80, 9726-34	7.8	4

14	Separation of fluorescently derivatized deuterated isotopomers of phenylalanine using micellar electrokinetic chromatography and flow counterbalanced micellar electrokinetic chromatography. <i>Journal of Separation Science</i> , 1999 , 11, 175-183		4
13	Measuring stimulation and inhibition of intracellular nitric oxide production in SIM-A9 microglia using microfluidic single-cell analysis. <i>Analytical Methods</i> , 2020 , 12, 4665-4673	3-2	4
12	Single Cell Lysis on Microfluidic Devices 2001 , 301-302		3
11	Optical biosensing of markers of mucosal inflammation. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2021 , 40, 102476	6	2
10	Rapid Cellular Assays on Microfabricated Fluidic Devices 2001 , 285-286		2
9	High Performance Two Dimensional Separations of Tryptic Digests on Microfluidic Devices 2002 , 608-610		2
8	Electroosmotically Induced Hydraulic Pumping on Microchips 2001 , 131-132		2
7	Microfabricated Intrachannel Electrical Contacts for Material Transport Control 2000 , 213-216		2
6	High Efficiency Separations on Microchip Devices 2000 , 221-224		1
5	Microelectrophoretic single-cell measurements with microfluidic devices. <i>Methods in Enzymology</i> , 2019 , 628, 223-241	1.7	1
4	Fabrication of Glass Microfluidic Devices. <i>Methods in Molecular Biology</i> , 2019 , 1906, 1-12	1.4	1
3	Rapid Electrophoretic and Chromatographic Analysis on Microchips 1998 , 315-318		0
2	Microfabricated Fluidic Devices for Cellular Assays 2000 , 107-110		
1	Minimizing Dispersion Introduced by Turns on Microchips 1998 , 161-164		