

Christopher T Culbertson

List of Publications by Year in descending order

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67
papers

4,842
citations

147566

31
h-index

143772

57
g-index

70
all docs

70
docs citations

70
times ranked

4892
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical biosensing of markers of mucosal inflammation. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2022, 40, 102476.	1.7	7
2	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.	1.3	8
3	Microelectrophoretic single-cell measurements with microfluidic devices. <i>Methods in Enzymology</i> , 2019, 628, 223-241.	0.4	2
4	Fabrication of Glass Microfluidic Devices. <i>Methods in Molecular Biology</i> , 2019, 1906, 1-12.	0.4	4
5	Cellular Analysis Using Microfluidics. <i>Analytical Chemistry</i> , 2018, 90, 65-85.	3.2	52
6	Early detection of pancreatic cancers in liquid biopsies by ultrasensitive fluorescence nanobiosensors. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2018, 14, 1823-1832.	1.7	25
7	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> , 2017, 17, 145-155.	3.1	11
8	Effects of storage temperature on airway exosome integrity for diagnostic and functional analyses. <i>Journal of Extracellular Vesicles</i> , 2017, 6, 1359478.	5.5	199
9	High-throughput microfluidic device for single cell analysis using multiple integrated soft lithographic pumps. <i>Electrophoresis</i> , 2016, 37, 1337-1344.	1.3	15
10	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.	3.2	10
11	Micro Total Analysis Systems: Fundamental Advances and Applications. <i>Analytical Chemistry</i> , 2016, 88, 320-338.	3.2	94
12	Integration of a nanostructured dielectrophoretic device and a surface-enhanced Raman probe for highly sensitive rapid bacteria detection. <i>Nanoscale</i> , 2015, 7, 3726-3736.	2.8	62
13	Micro Total Analysis Systems: Fundamental Advances and Biological Applications. <i>Analytical Chemistry</i> , 2014, 86, 95-118.	3.2	160
14	An Integrated Microfluidic Device for Monitoring Changes in Nitric Oxide Production in Single T-Lymphocyte (Jurkat) Cells. <i>Analytical Chemistry</i> , 2013, 85, 10188-10195.	3.2	42
15	Manipulation of bacteriophages with dielectrophoresis on carbon nanofiber nanoelectrode arrays. <i>Electrophoresis</i> , 2013, 34, 1123-1130.	1.3	31
16	Monitoring intracellular nitric oxide production using microchip electrophoresis and laser-induced fluorescence detection. <i>Analytical Methods</i> , 2012, 4, 414.	1.3	36
17	Integrated microfluidic device for the separation and electrochemical detection of catechol estrogen-derived DNA adducts. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 519-524.	1.9	11
18	Dielectrophoretic capture of <i>E. coli</i> cells at micropatterned nanoelectrode arrays. <i>Electrophoresis</i> , 2011, 32, 2358-2365.	1.3	15

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19	Paper-based microfluidic devices for analysis of clinically relevant analytes present in urine and saliva. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 1821-1829.	1.9	249
20	Electrokinetic trapping using titania nanoporous membranes fabricated using sol-gel chemistry on microfluidic devices. <i>Electrophoresis</i> , 2009, 30, 3160-3167.	1.3	26
21	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, 10390-10396.	1.6	22
22	Single-Molecule Studies of Oligomer Extraction and Uptake of Dyes in Poly(dimethylsiloxane) Films. <i>Analytical Chemistry</i> , 2009, 81, 10089-10096.	3.2	12
23	Generation of Nonbiased Hydrodynamic Injections on Microfluidic Devices Using Integrated Dielectric Elastomer Actuators. <i>Analytical Chemistry</i> , 2009, 81, 8942-8948.	3.2	19
24	Demonstration of an integrated electroactive polymer actuator on a microfluidic electrophoresis device. <i>Lab on A Chip</i> , 2009, 9, 2076.	3.1	20
25	A novel, environmentally friendly sodium lauryl ether sulfate, cocamidopropyl betaine, cocamide monoethanolamine-containing buffer for MEKC on microfluidic devices. <i>Electrophoresis</i> , 2008, 29, 4900-4905.	1.3	8
26	Single Molecule Studies of Solvent-Dependent Diffusion and Entrapment in Poly(dimethylsiloxane) Thin Films. <i>Analytical Chemistry</i> , 2008, 80, 9726-9734.	3.2	6
27	Chemical Analysis of Single Mammalian Cells with Microfluidics. <i>Analytical Chemistry</i> , 2007, 79, 2614-2621.	3.2	60
28	The effect of photomask resolution on separation efficiency on microfabricated devices. <i>Lab on A Chip</i> , 2006, 6, 1355.	3.1	7
29	Surface Engineering of Poly(dimethylsiloxane) Microfluidic Devices Using Transition Metal Sol-Gel Chemistry. <i>Langmuir</i> , 2006, 22, 4445-4451.	1.6	116
30	High efficiency micellar electrokinetic chromatography of hydrophobic analytes on poly(dimethylsiloxane) microchips. <i>Analyst</i> , 2006, 131, 194-201.	1.7	67
31	Optical microscopy studies of polymer/liquid-crystal diffractive optics. , 2006, , .		0
32	Single-cell manipulation and analysis using microfluidic devices. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 387, 9-12.	1.9	103
33	Micellar electrokinetic chromatography of fluorescently labeled proteins on poly(dimethylsiloxane)-based microchips. <i>Electrophoresis</i> , 2006, 27, 2933-2939.	1.3	23
34	Single Cell Analysis on Microfluidic Devices. , 2006, 339, 203-216.		7
35	Static and Dynamic Acute Cytotoxicity Assays on Microfluidic Devices. <i>Analytical Chemistry</i> , 2005, 77, 667-672.	3.2	33
36	Sol-Gel Modified Poly(dimethylsiloxane) Microfluidic Devices with High Electroosmotic Mobilities and Hydrophilic Channel Wall Characteristics. <i>Analytical Chemistry</i> , 2005, 77, 1414-1422.	3.2	207

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37	Microchip Separations in Reduced-Gravity and Hypergravity Environments. Analytical Chemistry, 2005, 77, 7933-7940.	3.2	37
38	Effects of Microfabrication Processing on the Electrochemistry of Carbon Nanofiber Electrodes. Journal of Physical Chemistry B, 2003, 107, 10722-10728.	1.2	29
39	Microfluidic Devices for the High-Throughput Chemical Analysis of Cells. Analytical Chemistry, 2003, 75, 5646-5655.	3.2	357
40	High-Efficiency, Two-Dimensional Separations of Protein Digests on Microfluidic Devices. Analytical Chemistry, 2003, 75, 3758-3764.	3.2	189
41	Diffusion coefficient measurements in microfluidic devices. Talanta, 2002, 56, 365-373.	2.9	400
42	High Performance Two Dimensional Separations of Tryptic Digests on Microfluidic Devices. , 2002, , 608-610.		2
43	Two-Dimensional Electrochromatography/Capillary Electrophoresis on a Microchip. Analytical Chemistry, 2001, 73, 2669-2674.	3.2	209
44	Flow Cytometry of Escherichia colion Microfluidic Devices. Analytical Chemistry, 2001, 73, 5334-5338.	3.2	230
45	Electroosmotically Induced Hydraulic Pumping with Integrated Electrodes on Microfluidic Devices. Analytical Chemistry, 2001, 73, 4045-4049.	3.2	131
46	Single Cell Lysis on Microfluidic Devices. , 2001, , 301-302.		3
47	Electroosmotically Induced Hydraulic Pumping on Microchips. , 2001, , 131-132.		5
48	Rapid Cellular Assays on Microfabricated Fluidic Devices. , 2001, , 285-286.		3
49	Effects of the electric field distribution on microchip valving performance. Electrophoresis, 2000, 21, 100-106.	1.3	80
50	Electrophoretic separation of proteins on microchips. Journal of Separation Science, 2000, 12, 407-411.	1.0	22
51	Integrated microchip-device for the digestion, separation and postcolumn labeling of proteins and peptides. Biomedical Applications, 2000, 745, 243-249.	1.7	76
52	Electroosmotically Induced Hydraulic Pumping on Microchips: Differential Ion Transport. Analytical Chemistry, 2000, 72, 2285-2291.	3.2	117
53	Microchip Devices for High-Efficiency Separations. Analytical Chemistry, 2000, 72, 5814-5819.	3.2	193
54	High Efficiency Separations on Microchip Devices. , 2000, , 221-224.		1

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55	Microfabricated Fluidic Devices for Cellular Assays. , 2000, , 107-110.		0
56	Increasing the resolving power of capillary electrophoresis through electroosmotic flow control using radial fields. Journal of Separation Science, 1999, 11, 167-174.	1.0	16
57	Separation of fluorescently derivatized deuterated isotopomers of phenylalanine using micellar electrokinetic chromatography and flow counterbalanced micellar electrokinetic chromatography. Journal of Separation Science, 1999, 11, 175-183.	1.0	5
58	Lowering the UV absorbance detection limit and increasing the sensitivity of capillary electrophoresis using a dual linear photodiode array detector and signal averaging. Journal of Separation Science, 1999, 11, 652-662.	1.0	10
59	Microchip Flow Cytometry Using Electrokinetic Focusing. Analytical Chemistry, 1999, 71, 4173-4177.	3.2	213
60	Microchip Structures for Submillisecond Electrophoresis. Analytical Chemistry, 1998, 70, 3476-3480.	3.2	301
61	Lowering the UV Absorbance Detection Limit in Capillary Zone Electrophoresis Using a Single Linear Photodiode Array Detector. Analytical Chemistry, 1998, 70, 2629-2638.	3.2	33
62	Dispersion Sources for Compact Geometries on Microchips. Analytical Chemistry, 1998, 70, 3781-3789.	3.2	186
63	Rapid Electrophoretic and Chromatographic Analysis on Microchips. , 1998, , 315-318.		2
64	Minimizing Dispersion Introduced by Turns on Microchips. , 1998, , 161-164.		0
65	Synthesis and Photophysical Properties of Mono(2,2',2''-terpyridine) Complexes of Ruthenium(II). Inorganic Chemistry, 1995, 34, 3385-3395.	1.9	92
66	Flow Counterbalanced Capillary Electrophoresis. Analytical Chemistry, 1994, 66, 955-962.	3.2	108
67	Synthesis and pharmacology of irreversible affinity labels as potential cocaine antagonists: aryl 1,4-dialkylpiperazines related to GBR-12783. European Journal of Pharmacology, 1992, 220, 173-180.	1.7	21