D Jed Harrison

List of Publications by Year
in descending order

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46 papers	6,438 citations	186265 28 h-index	233421 45 g-index
46 all docs	46 docs citations	46 times ranked	4495 citing authors

#	Article	IF	Citations
1	Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip. Science, 1993, 261, 895-897.	12.6	1,749
2	All-optical electrophysiology in mammalian neurons using engineered microbial rhodopsins. Nature Methods, 2014, 11, 825-833.	19.0	666
3	Transport, Manipulation, and Reaction of Biological Cells On-Chip Using Electrokinetic Effects. Analytical Chemistry, 1997, 69, 1564-1568.	6.5	407
4	Microchip-Based Capillary Electrophoresis for Immunoassays:Â Analysis of Monoclonal Antibodies and Theophylline. Analytical Chemistry, 1997, 69, 373-378.	6.5	398
5	Electrokinetic control of fluid flow in native poly(dimethylsiloxane) capillary electrophoresis devices. Electrophoresis, 2000, 21, 107-115.	2.4	320
6	Microchip systems for immunoassay: an integrated immunoreactor with electrophoretic separation for serum theophylline determination. Clinical Chemistry, 1998, 44, 591-598.	3.2	268
7	Microfabrication of a Planar Absorbance and Fluorescence Cell for Integrated Capillary Electrophoresis Devices. Analytical Chemistry, 1996, 68, 1040-1046.	6.5	210
8	Microfluidic Devices Connected to Fused-Silica Capillaries with Minimal Dead Volume. Analytical Chemistry, 1999, 71, 3292-3296.	6.5	207
9	Integration of immobilized trypsin bead beds for protein digestion within a microfluidic chip incorporating capillary electrophoresis separations and an electrospray mass spectrometry interface. Rapid Communications in Mass Spectrometry, 2000, 14, 1377-1383.	1.5	200
10	Integrated Capillary Electrophoresis Devices with an Efficient Postcolumn Reactor in Planar Quartz and Glass Chips. Analytical Chemistry, 1996, 68, 4285-4290.	6.5	185
11	Bright and fast multicoloured voltage reporters via electrochromic FRET. Nature Communications, 2014, 5, 4625.	12.8	175
12	Clinical potential of microchip capillary electrophoresis systems. Electrophoresis, 1997, 18, 1733-1741.	2.4	164
13	Electroosmotic Pumping of Organic Solvents and Reagents in Microfabricated Reactor Chips. Journal of the American Chemical Society, 1997, 119, 8716-8717.	13.7	144
14	A multireflection cell for enhanced absorbance detection in microchip-based capillary electrophoresis devices. Electrophoresis, 2000, 21, 1291-1299.	2.4	136
15	Chemiluminescence detection in integrated post-separation reactors for microchip-based capillary electrophoresis and affinity electrophoresis. Electrophoresis, 1998, 19, 2301-2307.	2.4	122
16	Effects of injector geometry and sample matrix on injection and sample loading in integrated capillary electrophoresis devices. Electrophoresis, 1999, 20, 529-538.	2.4	117
17	Rapid and sensitive separation of trace level protein digests using microfabricated devices coupled to a quadrupole - time-of-flight mass spectrometer. Electrophoresis, 2000, 21, 198-210.	2.4	107
18	Monoclonal antibody binding affinity determined by microchip-based capillary electrophoresis. Electrophoresis, 1998, 19, 3040-3044.	2.4	102

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19	mRNA isolation in a microfluidic device for eventual integration of cDNA library construction. Analyst, The, 2000, 125, 2176-2179.	3.5	102
20	Design of an interface to allow microfluidic electrophoresis chips to drink from the fire hose of the external environment. Electrophoresis, 2001, 22, 318-327.	2.4	101
21	Dual-Sorption Model of Water Uptake in Poly(vinyl chloride)-Based Ion-Selective Membranes:Â Experimental Water Concentration and Transport Parameters. Analytical Chemistry, 1996, 68, 1717-1725.	6.5	87
22	Construction and evaluation of a capillary array DNA sequencer based on a micromachined sheath-flow cuvette. Electrophoresis, 2000, 21, 1329-1335.	2.4	50
23	Enhanced Lifetime and Adhesion of K+â€‚â€‰NHâ€‰4 â€‰+â€‰â€‚and Ca2+â€Sensitive Membranes on Solid Surfaces Using Hydroxylâ€Modified Polyvinylchloride Matrices. Journal of the Electrochemical Society, 1988, 135, 2473-2478.	2.9	49
24	A regenerating ultrasensitive electrochemical impedance immunosensor for the detection of adenovirus. Biosensors and Bioelectronics, 2015, 68, 129-134.	10.1	47
25	Comparison of Numerical Modeling of Water Uptake in Poly(vinyl chloride)-Based Ion-Selective Membranes with Experiment. Analytical Chemistry, 1996, 68, 1726-1734.	6.5	44
26	Miniaturization of separation techniques using planar chip technology. Journal of High Resolution Chromatography, 1993, 16, 433-436.	1.4	43
27	Integrated system for high-throughput protein identification using a microfabricated device coupled to capillary electrophoresis / nanoelectrospray mass spectrometry. Proteomics, 2001, 1, 975-986.	2.2	40
28	An evaluation of the detection limits possible for competitive capillary electrophoretic immunoassays. Electrophoresis, 2001, 22, 3699-3708.	2.4	34
29	Ion pairing and acid dissociation constants in poly(vinyl chloride)-based ion-selective electrode membranes. Electroanalysis, 1993, 5, 845-854.	2.9	26
30	A regenerating self-assembled gold nanoparticle-containing electrochemical impedance sensor. Biosensors and Bioelectronics, 2014, 56, 328-333.	10.1	24
31	Sample Preparation in Centrifugal Microfluidic Discs for Human Serum Metabolite Analysis by Surface Assisted Laser Desorption/Ionization Mass Spectrometry. Analytical Chemistry, 2019, 91, 7570-7577.	6.5	17
32	Measurement of flow in microfluidic networks with micrometer-sized flow restrictors. AICHE Journal, 2006, 52, 75-85.	3.6	15
33	Matrixâ€free laser desorption/ionization mass spectrometry using silicon glancing angle deposition (GLAD) films. Rapid Communications in Mass Spectrometry, 2010, 24, 2305-2311.	1.5	11
34	Sizeâ€based proteins separation using polymerâ€entrapped colloidal selfâ€assembled nanoparticles onâ€chip. Electrophoresis, 2016, 37, 2602-2609.	2.4	10
35	Engineering matrixâ€free laser desorption ionization mass spectrometry using glancing angle deposition films. Rapid Communications in Mass Spectrometry, 2017, 31, 631-638.	1.5	10
36	Salt Segregation and Sample Cleanup on Perfluoro-Coated Nanostructured Surfaces for Laser Desorption Ionization Mass Spectrometry of Biofluid Samples. Analytical Chemistry, 2017, 89, 3362-3369.	6.5	8

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37	Evaluation of protein separation mechanism and pore size distribution in colloidal selfâ€assembled nanoparticle sieves for onâ€chip protein sizing. Electrophoresis, 2017, 38, 342-349.	2.4	8
38	Inverse-response Ca2+ indicators for optogenetic visualization of neuronal inhibition. Scientific Reports, 2018, 8, 11758.	3.3	8
39	A single-phase flow microfluidic cell sorter for multiparameter screening to assist the directed evolution of Ca²⁺ sensors. Lab on A Chip, 2019, 19, 3880-3887.	6.0	7
40	Water and the Ion-Selective Electrode Membrane. ACS Symposium Series, 1992, , 292-300.	0.5	5
41	Fabrication of Rugged and Reliable Fluidic Chips for Autonomous Environmental Analyzers Using Combined Thermal and Pressure Bonding of Polymethyl Methacrylate Layers. ACS Omega, 2019, 4, 21131-21140.	3.5	5
42	Multilayered Coatings of Perfluorinated Ionomer Membranes and Poly(phenylenediamine) for the Protection of Glucose Sensors In Vivo. ACS Symposium Series, 1994, , 255-263.	0.5	4
43	Integrated system for high-throughput protein identification using a microfabricated device coupled to capillary electrophoresis / nanoelectrospray mass spectrometry. Proteomics, 2001, 1, 975-986.	2.2	3
44	Chemically Sensitive Interfaces. ACS Symposium Series, 1994, , 1-14.	0.5	1
45	A personal stroll through the historical development of Canadian microfluidics. Lab on A Chip, 2013, 13, 2500.	6.0	1
46	Electrokinetic control of fluid flow in native poly(dimethylsiloxane) capillary electrophoresis devices. , 2000, 21, 107.		1