

Michael T Bowser

List of Publications by Year in descending order

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71
papers

4,225
citations

87843

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110317

64
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71
times ranked

3310
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduced surface adsorption in 3D printed acrylonitrile butadiene styrene micro free-flow electrophoresis devices. <i>Electrophoresis</i> , 2020, 41, 225-234.	1.3	13
2	Cytoplasmic nucleic acid-based XNAs directly enhance live cardiac cell function by a Ca ²⁺ cycling-independent mechanism via the sarcomere. <i>Journal of Molecular and Cellular Cardiology</i> , 2019, 130, 1-9.	0.9	1
3	Biochemical markers of striatal desensitization in cortical-limbic hyperglutamatergic TS- & OCD-like transgenic mice. <i>Journal of Chemical Neuroanatomy</i> , 2018, 89, 11-20.	1.0	6
4	Microfluidic methods for aptamer selection and characterization. <i>Analyst</i> , The, 2018, 143, 21-32.	1.7	44
5	Micro free flow electrophoresis. <i>Lab on A Chip</i> , 2018, 18, 27-40.	3.1	42
6	High-Speed, Comprehensive, Two Dimensional Separations of Peptides and Small Molecule Biological Amines Using Capillary Electrophoresis Coupled with Micro Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2017, 89, 1665-1673.	3.2	28
7	In Vivo Monitoring of Amino Acid Biomarkers from Inguinal Adipose Tissue Using Online Microdialysis-Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2017, 89, 1009-1014.	3.2	13
8	3D Printed Micro Free-Flow Electrophoresis Device. <i>Analytical Chemistry</i> , 2016, 88, 7675-7682.	3.2	70
9	Reversal of Phospholamban Inhibition of the Sarco(endo)plasmic Reticulum Ca ²⁺ -ATPase (SERCA) Using Short, Protein-interacting RNAs and Oligonucleotide Analogs. <i>Journal of Biological Chemistry</i> , 2016, 291, 21510-21518.	1.6	15
10	High-Speed Microdialysis-Capillary Electrophoresis Assays for Measuring Branched Chain Amino Acid Uptake in 3T3-L1 cells. <i>Analytical Chemistry</i> , 2016, 88, 8115-8122.	3.2	24
11	Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2016, 88, 299-319.	3.2	111
12	Effect of Fluorescent Labels on Peptide and Amino Acid Sample Dimensionality in Two Dimensional nLC-1/4FFE Separations. <i>Analytical Chemistry</i> , 2016, 88, 2177-2187.	3.2	17
13	Micro Free-Flow Electrophoresis (1/4FFE)., 2016, , 2092-2105.		0
14	Rheostatic Regulation of the SERCA/Phospholamban Membrane Protein Complex Using Non-Coding RNA and Single-Stranded DNA oligonucleotides. <i>Scientific Reports</i> , 2015, 5, 13000.	1.6	8
15	Sequence-Independent SSDNA Relieves Phospholamban Inhibition of SERCA in a Length Dependent Manner. <i>Biophysical Journal</i> , 2015, 108, 254a.	0.2	0
16	Effect of Surface Adsorption on Temporal and Spatial Broadening in Micro Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2015, 87, 11682-11690.	3.2	12
17	Micro Free-Flow Electrophoresis (1/4FFE)., 2015, , 1-15.		0
18	Analysis of individual mitochondria via fluorescent immunolabeling with Anti-TOM22 antibodies. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 1683-1691.	1.9	9

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19	Isolating single stranded DNA using a microfluidic dialysis device. <i>Analyst, The</i> , 2014, 139, 215-224.	1.7	11
20	Development of a sensitive assay for SERCA activity using FRET detection of ADP. <i>Analytical Methods</i> , 2014, 6, 1468-1474.	1.3	1
21	Comprehensive Multidimensional Separations of Peptides Using Nano-Liquid Chromatography Coupled with Micro Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2014, 86, 5136-5142.	3.2	36
22	Monitoring Neurochemical Release from Astrocytes Using in Vitro Microdialysis Coupled with High-Speed Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2013, 85, 9070-9077.	3.2	33
23	Tracking the Emergence of High Affinity Aptamers for rhVEGF ₁₆₅ During Capillary Electrophoresis-Systematic Evolution of Ligands by Exponential Enrichment Using High Throughput Sequencing. <i>Analytical Chemistry</i> , 2013, 85, 10761-10770.	3.2	45
24	Effect of cross sectional geometry on PDMS micro peristaltic pump performance: comparison of SU-8 replica molding vs. micro injection molding. <i>Analyst, The</i> , 2013, 138, 5791.	1.7	4
25	Capillary Electrophoresis-SELEX Selection of Catalytic DNA Aptamers for a Small-Molecule Porphyrin Target. <i>Analytical Chemistry</i> , 2013, 85, 1525-1530.	3.2	122
26	Introduction to New Frontiers in Bioanalytical Chemistry. <i>Chemical Reviews</i> , 2013, 113, 2267-2268.	23.0	3
27	Size selective DNA transport through a nanoporous membrane in a PDMS microfluidic device. <i>Analyst, The</i> , 2012, 137, 1144.	1.7	9
28	Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2012, 84, 577-596.	3.2	124
29	Isolation of DNA aptamers using micro free flow electrophoresis. <i>Lab on A Chip</i> , 2011, 11, 3703.	3.1	72
30	Methods for measuring aptamer-protein equilibria: A review. <i>Analytica Chimica Acta</i> , 2011, 686, 9-18.	2.6	174
31	Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2010, 82, 4682-4698.	3.2	56
32	Measuring Aptamer Equilibria Using Gradient Micro Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2010, 82, 3636-3641.	3.2	47
33	Neuronal release of D-serine: a physiological pathway controlling extracellular D-serine concentration. <i>FASEB Journal</i> , 2010, 24, 2951-2961.	0.2	113
34	Using buffer additives to improve analyte stream stability in micro free flow electrophoresis. <i>Lab on A Chip</i> , 2010, 10, 1231.	3.1	29
35	Improving sensitivity in micro-free flow electrophoresis using signal averaging. <i>Electrophoresis</i> , 2009, 30, 1342-1348.	1.3	21
36	Micro free-flow electrophoresis: theory and applications. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 394, 187-198.	1.9	140

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37	Fast Determination of Mitochondria Electrophoretic Mobility Using Micro Free-Flow Electrophoresis. <i>Analytical Chemistry</i> , 2009, 81, 9267-9273.	3.2	55
38	A soft-polymer piezoelectric bimorph cantilever-actuated peristaltic micropump. <i>Lab on A Chip</i> , 2008, 8, 1664.	3.1	43
39	Analysis and Monitoring of Volatile Analytes from Aqueous Solutions by Extractions into the Gas Phase Using Microdialysis Membranes and Coupling to Fast GC. <i>Analytical Chemistry</i> , 2008, 80, 123-128.	3.2	6
40	Fast Electrophoretic Separation Optimization Using Gradient Micro Free-Flow Electrophoresis. <i>Analytical Chemistry</i> , 2008, 80, 3182-3189.	3.2	38
41	4-Fluoro-7-nitro-2,1,3-benzoxadiazole as a Fluorogenic Labeling Reagent for the in Vivo Analysis of Amino Acid Neurotransmitters Using Online Microdialysis ⁺ Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2007, 79, 8747-8754.	3.2	75
42	Optimizing Band Width and Resolution in Micro-Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2006, 78, 8236-8244.	3.2	80
43	Using Channel Depth To Isolate and Control Flow in a Micro Free-Flow Electrophoresis Device. <i>Analytical Chemistry</i> , 2006, 78, 5369-5374.	3.2	81
44	Measuring the effect of glutamate receptor agonists on extracellular d-serine concentrations in the rat striatum using online microdialysis-capillary electrophoresis. <i>Neuroscience Letters</i> , 2006, 393, 200-205.	1.0	25
45	Measuring D-serine efflux from mouse cortical brain slices using online microdialysis-capillary electrophoresis. <i>Electrophoresis</i> , 2006, 27, 1949-1956.	1.3	25
46	Effect of anionic additive type on ion pair formation constants of basic pharmaceuticals. <i>Journal of Chromatography A</i> , 2005, 1069, 225-234.	1.8	54
47	Capillary Electrophoresis-SELEX Selection of Aptamers with Affinity for HIV-1 Reverse Transcriptase. <i>Analytical Chemistry</i> , 2005, 77, 6107-6112.	3.2	195
48	In Vitro Selection of Aptamers with Affinity for Neuropeptide Y Using Capillary Electrophoresis. <i>Journal of the American Chemical Society</i> , 2005, 127, 9382-9383.	6.6	163
49	SELEX: Just another separation?. <i>Analyst</i> , The, 2005, 130, 128.	1.7	39
50	Free-Flow Electrophoresis on an Anodic Bonded Glass Microchip. <i>Analytical Chemistry</i> , 2005, 77, 5706-5710.	3.2	103
51	d-Serine uptake by isolated retinas is consistent with ASCT-mediated transport. <i>Neuroscience Letters</i> , 2005, 385, 58-63.	1.0	45
52	Monitoring d-Serine Dynamics in the Rat Brain Using Online Microdialysis-Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2004, 76, 6582-6587.	3.2	59
53	Monitoring Neurotransmitter Release from Isolated Retinas Using Online Microdialysis-Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2004, 76, 5069-5074.	3.2	44
54	In Vitro Evolution of Functional DNA Using Capillary Electrophoresis. <i>Journal of the American Chemical Society</i> , 2004, 126, 20-21.	6.6	343

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55	In Vitro Selection of High-Affinity DNA Ligands for Human IgE Using Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2004, 76, 5387-5392.	3.2	226
56	In vivomonitoring of amine neurotransmitters using microdialysis with on-line capillary electrophoresis. <i>Electrophoresis</i> , 2001, 22, 3668-3676.	1.3	155
57	Designed Signaling Aptamers that Transduce Molecular Recognition to Changes in Fluorescence Intensity. <i>Journal of the American Chemical Society</i> , 2000, 122, 2469-2473.	6.6	272
58	Quantitative Analysis of Receptors for Adenosine Nucleotides Obtained via In Vitro Selection from a Library Incorporating a Cationic Nucleotide Analog. <i>Journal of the American Chemical Society</i> , 1999, 121, 9781-9789.	6.6	115
59	Monte Carlo Simulation of Error Propagation in the Determination of Binding Constants from Rectangular Hyperbolae. 2. Effect of the Maximum-Response Range. <i>Journal of Physical Chemistry A</i> , 1999, 103, 197-202.	1.1	60
60	Dynamic complexation of solutes in capillary electrophoresis. <i>Electrophoresis</i> , 1998, 19, 383-387.	1.3	15
61	The effects of a mixture of charged and neutral additives on analyte migration behavior in capillary electrophoresis. <i>Electrophoresis</i> , 1998, 19, 388-396.	1.3	24
62	Recent developments towards a unified theory for separation science (Minireview). <i>Electrophoresis</i> , 1998, 19, 1586-1589.	1.3	2
63	Analyte-additive interactions in nonaqueous capillary electrophoresis: a critical review. <i>TrAC - Trends in Analytical Chemistry</i> , 1998, 17, 424-434.	5.8	76
64	Properties of Multivariate Binding Isotherms in Capillary Electrophoresis. <i>Analytical Chemistry</i> , 1998, 70, 1076-1084.	3.2	24
65	Higher Order Equilibria and Their Effect on Analyte Migration Behavior in Capillary Electrophoresis. <i>Analytical Chemistry</i> , 1998, 70, 3261-3270.	3.2	58
66	Monte Carlo Simulation of Error Propagation in the Determination of Binding Constants from Rectangular Hyperbolae. 1. Ligand Concentration Range and Binding Constant. <i>Journal of Physical Chemistry A</i> , 1998, 102, 8063-8071.	1.1	68
67	Quantitative description of migration behavior of porphyrins based on the dynamic complexation model in a nonaqueous capillary electrophoresis system. <i>Electrophoresis</i> , 1997, 18, 82-91.	1.3	52
68	Quantitative description of analyte migration behavior based on dynamic complexation in capillary electrophoresis with one or more additives. <i>Electrophoresis</i> , 1997, 18, 706-716.	1.3	65
69	Redefining the separation factor: A potential pathway to a unified separation science. <i>Electrophoresis</i> , 1997, 18, 2928-2934.	1.3	23
70	Development and Application of a Nonaqueous Capillary Electrophoresis System for the Analysis of Porphyrins and Their Oligomers (PHOTOFRIN). <i>Analytical Biochemistry</i> , 1996, 241, 143-150.	1.1	41
71	Preparation and certification of solutions of perdeuterated polycyclic aromatic compounds intended for use as surrogate internal standards. <i>Fresenius' Journal of Analytical Chemistry</i> , 1994, 350, 109-118.	1.5	23