

# Michael T Bowser

## List of Publications by Year in descending order

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71  
papers

4,225  
citations

87888

38  
h-index

110387

64  
g-index

71  
all docs

71  
docs citations

71  
times ranked

3310  
citing authors

#	ARTICLE	IF	CITATIONS
1	In Vitro Evolution of Functional DNA Using Capillary Electrophoresis. <i>Journal of the American Chemical Society</i> , 2004, 126, 20-21.	13.7	343
2	Designed Signaling Aptamers that Transduce Molecular Recognition to Changes in Fluorescence Intensity. <i>Journal of the American Chemical Society</i> , 2000, 122, 2469-2473.	13.7	272
3	In Vitro Selection of High-Affinity DNA Ligands for Human IgE Using Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2004, 76, 5387-5392.	6.5	226
4	Capillary Electrophoresis-SELEX Selection of Aptamers with Affinity for HIV-1 Reverse Transcriptase. <i>Analytical Chemistry</i> , 2005, 77, 6107-6112.	6.5	195
5	Methods for measuring aptamer-protein equilibria: A review. <i>Analytica Chimica Acta</i> , 2011, 686, 9-18.	5.4	174
6	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.	13.7	163
7	In vivomonitoring of amine neurotransmitters using microdialysis with on-line capillary electrophoresis. <i>Electrophoresis</i> , 2001, 22, 3668-3676.	2.4	155
8	Micro free-flow electrophoresis: theory and applications. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 394, 187-198.	3.7	140
9	Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2012, 84, 577-596.	6.5	124
10	Capillary Electrophoresis-SELEX Selection of Catalytic DNA Aptamers for a Small-Molecule Porphyrin Target. <i>Analytical Chemistry</i> , 2013, 85, 1525-1530.	6.5	122
11	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.	13.7	115
12	Neuronal release of D-serine: a physiological pathway controlling extracellular D-serine concentration. <i>FASEB Journal</i> , 2010, 24, 2951-2961.	0.5	113
13	Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2016, 88, 299-319.	6.5	111
14	Free-Flow Electrophoresis on an Anodic Bonded Glass Microchip. <i>Analytical Chemistry</i> , 2005, 77, 5706-5710.	6.5	103
15	Using Channel Depth To Isolate and Control Flow in a Micro Free-Flow Electrophoresis Device. <i>Analytical Chemistry</i> , 2006, 78, 5369-5374.	6.5	81
16	Optimizing Band Width and Resolution in Micro-Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2006, 78, 8236-8244.	6.5	80
17	Analyte-additive interactions in nonaqueous capillary electrophoresis: a critical review. <i>TrAC - Trends in Analytical Chemistry</i> , 1998, 17, 424-434.	11.4	76
18	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.	6.5	75

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19	Isolation of DNA aptamers using micro free flow electrophoresis. <i>Lab on A Chip</i> , 2011, 11, 3703.	6.0	72
20	3D Printed Micro Free-Flow Electrophoresis Device. <i>Analytical Chemistry</i> , 2016, 88, 7675-7682.	6.5	70
21	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.	2.5	68
22	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.	2.4	65
23	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.	2.5	60
24	Monitoring d-Serine Dynamics in the Rat Brain Using Online Microdialysis-Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2004, 76, 6582-6587.	6.5	59
25	Higher Order Equilibria and Their Effect on Analyte Migration Behavior in Capillary Electrophoresis. <i>Analytical Chemistry</i> , 1998, 70, 3261-3270.	6.5	58
26	Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2010, 82, 4682-4698.	6.5	56
27	Fast Determination of Mitochondria Electrophoretic Mobility Using Micro Free-Flow Electrophoresis. <i>Analytical Chemistry</i> , 2009, 81, 9267-9273.	6.5	55
28	Effect of anionic additive type on ion pair formation constants of basic pharmaceuticals. <i>Journal of Chromatography A</i> , 2005, 1069, 225-234.	3.7	54
29	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.	2.4	52
30	Measuring Aptamer Equilibria Using Gradient Micro Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2010, 82, 3636-3641.	6.5	47
31	d-Serine uptake by isolated retinas is consistent with ASCT-mediated transport. <i>Neuroscience Letters</i> , 2005, 385, 58-63.	2.1	45
32	Tracking the Emergence of High Affinity Aptamers for rhVEGF <sub>165</sub> During Capillary Electrophoresis-Systematic Evolution of Ligands by Exponential Enrichment Using High Throughput Sequencing. <i>Analytical Chemistry</i> , 2013, 85, 10761-10770.	6.5	45
33	Monitoring Neurotransmitter Release from Isolated Retinas Using Online Microdialysis-Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2004, 76, 5069-5074.	6.5	44
34	Microfluidic methods for aptamer selection and characterization. <i>Analyst</i> , 2018, 143, 21-32.	3.5	44
35	A soft-polymer piezoelectric bimorph cantilever-actuated peristaltic micropump. <i>Lab on A Chip</i> , 2008, 8, 1664.	6.0	43
36	Micro free flow electrophoresis. <i>Lab on A Chip</i> , 2018, 18, 27-40.	6.0	42

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37	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.	2.4	41
38	SELEX: Just another separation?. <i>Analyst</i> , The, 2005, 130, 128.	3.5	39
39	Fast Electrophoretic Separation Optimization Using Gradient Micro Free-Flow Electrophoresis. <i>Analytical Chemistry</i> , 2008, 80, 3182-3189.	6.5	38
40	Comprehensive Multidimensional Separations of Peptides Using Nano-Liquid Chromatography Coupled with Micro Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2014, 86, 5136-5142.	6.5	36
41	Monitoring Neurochemical Release from Astrocytes Using in Vitro Microdialysis Coupled with High-Speed Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2013, 85, 9070-9077.	6.5	33
42	Using buffer additives to improve analyte stream stability in micro free flow electrophoresis. <i>Lab on A Chip</i> , 2010, 10, 1231.	6.0	29
43	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.	6.5	28
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.	2.1	25
45	Measuring D-serine efflux from mouse cortical brain slices using online microdialysis-capillary electrophoresis. <i>Electrophoresis</i> , 2006, 27, 1949-1956.	2.4	25
46	The effects of a mixture of charged and neutral additives on analyte migration behavior in capillary electrophoresis. <i>Electrophoresis</i> , 1998, 19, 388-396.	2.4	24
47	Properties of Multivariate Binding Isotherms in Capillary Electrophoresis. <i>Analytical Chemistry</i> , 1998, 70, 1076-1084.	6.5	24
48	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.	6.5	24
49	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
50	Redefining the separation factor: A potential pathway to a unified separation science. <i>Electrophoresis</i> , 1997, 18, 2928-2934.	2.4	23
51	Improving sensitivity in micro-free flow electrophoresis using signal averaging. <i>Electrophoresis</i> , 2009, 30, 1342-1348.	2.4	21
52	Effect of Fluorescent Labels on Peptide and Amino Acid Sample Dimensionality in Two Dimensional nLC $\bar{A}$ - $\bar{1}$ / $\bar{4}$ FFE Separations. <i>Analytical Chemistry</i> , 2016, 88, 2177-2187.	6.5	17
53	Dynamic complexation of solutes in capillary electrophoresis. <i>Electrophoresis</i> , 1998, 19, 383-387.	2.4	15
54	Reversal of Phospholamban Inhibition of the Sarco(endo)plasmic Reticulum Ca <sup>2+</sup> -ATPase (SERCA) Using Short, Protein-interacting RNAs and Oligonucleotide Analogs. <i>Journal of Biological Chemistry</i> , 2016, 291, 21510-21518.	3.4	15

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55	In Vivo Monitoring of Amino Acid Biomarkers from Inguinal Adipose Tissue Using Online Microdialysis-Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2017, 89, 1009-1014.	6.5	13
56	Reduced surface adsorption in 3D printed acrylonitrile butadiene styrene micro free-flow electrophoresis devices. <i>Electrophoresis</i> , 2020, 41, 225-234.	2.4	13
57	Effect of Surface Adsorption on Temporal and Spatial Broadening in Micro Free Flow Electrophoresis. <i>Analytical Chemistry</i> , 2015, 87, 11682-11690.	6.5	12
58	Isolating single stranded DNA using a microfluidic dialysis device. <i>Analyst, The</i> , 2014, 139, 215-224.	3.5	11
59	Size selective DNA transport through a nanoporous membrane in a PDMS microfluidic device. <i>Analyst, The</i> , 2012, 137, 1144.	3.5	9
60	Analysis of individual mitochondria via fluorescent immunolabeling with Anti-TOM22 antibodies. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 1683-1691.	3.7	9
61	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.	3.3	8
62	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.	6.5	6
63	Biochemical markers of striatal desensitization in cortical-limbic hyperglutamatergic TS- & OCD-like transgenic mice. <i>Journal of Chemical Neuroanatomy</i> , 2018, 89, 11-20.	2.1	6
64	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.	3.5	4
65	Introduction to New Frontiers in Bioanalytical Chemistry. <i>Chemical Reviews</i> , 2013, 113, 2267-2268.	47.7	3
66	Recent developments towards a unified theory for separation science (Minireview). <i>Electrophoresis</i> , 1998, 19, 1586-1589.	2.4	2
67	Development of a sensitive assay for SERCA activity using FRET detection of ADP. <i>Analytical Methods</i> , 2014, 6, 1468-1474.	2.7	1
68	Cytoplasmic nucleic acid-based XNAs directly enhance live cardiac cell function by a Ca <sup>2+</sup> cycling-independent mechanism via the sarcomere. <i>Journal of Molecular and Cellular Cardiology</i> , 2019, 130, 1-9.	1.9	1
69	Sequence-Independent ssDNA Relieves Phospholamban Inhibition of SERCA in a Length Dependent Manner. <i>Biophysical Journal</i> , 2015, 108, 254a.	0.5	0
70	Micro Free-Flow Electrophoresis (µFFE)., 2015, , 1-15.		0
71	Micro Free-Flow Electrophoresis (µFFE)., 2016, , 2092-2105.		0