Mark Bachman

List of Publications by Year
in descending order

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71 papers	2,439 citations	257450 24 h-index	197818 49 g-index
71 all docs	71 docs citations	71 times ranked	2832 citing authors

#	Article	IF	Citations
1	Surface Modification of Poly(dimethylsiloxane) Microfluidic Devices by Ultraviolet Polymer Grafting. Analytical Chemistry, 2002, 74, 4117-4123.	6.5	399
2	Surface-Directed, Graft Polymerization within Microfluidic Channels. Analytical Chemistry, 2004, 76, 1865-1870.	6.5	222
3	Electroosmotic properties of microfluidic channels composed of poly(dimethylsiloxane). Biomedical Applications, 2001, 762, 117-125.	1.7	166
4	Covalent Micropatterning of Poly(dimethylsiloxane) by Photografting through a Mask. Analytical Chemistry, 2005, 77, 7539-7546.	6.5	130
5	Photoresist with Low Fluorescence for Bioanalytical Applications. Analytical Chemistry, 2007, 79, 8774-8780.	6.5	105
6	Fast Electrical Lysis of Cells for Capillary Electrophoresis. Analytical Chemistry, 2003, 75, 3688-3696.	6.5	104
7	Micropatterning of Living Cells on a Heterogeneously Wetted Surface. Langmuir, 2006, 22, 8257-8262.	3.5	97
8	Skin-mountable stretch sensor for wearable health monitoring. Nanoscale, 2016, 8, 17295-17303.	5.6	97
9	Tailoring the Surface Properties of Poly(dimethylsiloxane) Microfluidic Devices. Langmuir, 2004, 20, 5569-5574.	3.5	89
10	Micropallet Arrays for the Separation of Single, Adherent Cells. Analytical Chemistry, 2007, 79, 682-687.	6.5	89
11	Simple Photografting Method to Chemically Modify and Micropattern the Surface of SU-8 Photoresist. Langmuir, 2006, 22, 2719-2725.	3.5	80
12	Cross-linked coatings for electrophoretic separations in poly(dimethylsiloxane) microchannels. Electrophoresis, 2003, 24, 3679-3688.	2.4	78
13	The Manumeter: A Wearable Device for Monitoring Daily Use of the Wrist and Fingers. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 1804-1812.	6.3	76
14	Frequency domain phase-resolved optical Doppler and Doppler variance tomography. Optics Communications, 2004, 242, 345-350.	2.1	64
15	Integrated Printed Circuit Board Device for Cell Lysis and Nucleic Acid Extraction. Analytical Chemistry, 2012, 84, 9640-9645.	6.5	64
16	Surface graft polymerization of SU-8 for bio-MEMS applications. Journal of Micromechanics and Microengineering, 2007, 17, 1371-1380.	2.6	53
17	Collection and Expansion of Single Cells and Colonies Released from a Micropallet Array. Analytical Chemistry, 2007, 79, 2359-2366.	6.5	51
18	Phase-resolved optical Doppler tomography for imaging flow dynamics in microfluidic channels. Applied Physics Letters, 2004, 85, 1855-1857.	3.3	45

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19	Polymeric micro-cantilever array for auditory front-end processing. Sensors and Actuators A: Physical, 2004, 114, 176-182.	4.1	42
20	Characterization and use of laser-based lysis for cell analysis on-chip. Journal of the Royal Society Interface, 2008, 5, S113-21.	3.4	37
21	Flexible shrink-induced high surface area electrodes for electrochemiluminescent sensing. Lab on A Chip, 2013, 13, 4205.	6.0	37
22	Micromechanical Resonator Array for an Implantable Bionic Ear. Audiology and Neuro-Otology, 2006, 11, 95-103.	1.3	29
23	Broadening cell selection criteria with micropallet arrays of adherent cells. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2007, 71A, 866-874.	1.5	27
24	Fast-lysis cell traps for chemical cytometry. Lab on A Chip, 2008, 8, 710.	6.0	24
25	Microfluidic printed circuit boards. , 2011, , .		18
26	Choosing one from the many: selection and sorting strategies for single adherent cells. Analytical and Bioanalytical Chemistry, 2006, 387, 5-8.	3.7	16
27	Droplet formation in microchannels under static conditions. Applied Physics Letters, 2006, 89, 144106.	3.3	16
28	Ferromagnetic Micropallets for Magnetic Capture of Single Adherent Cells. Langmuir, 2010, 26, 17703-17711.	3.5	15
29	High-Power Magnetically Actuated Microswitches Fabricated in Laminates. IEEE Electron Device Letters, 2012, 33, 1309-1311.	3.9	15
30	Microfluidic dielectrophoretic sorter using gel vertical electrodes. Biomicrofluidics, 2014, 8, 034105.	2.4	14
31	Stability of Virtual Air Walls on Micropallet Arrays. Analytical Chemistry, 2007, 79, 7104-7109.	6.5	12
32	Microfluidic thermal component for integrated microfluidic systems. , 2012, , .		11
33	Characterization of the laser-based release of micropallets from arrays. Journal of Biomedical Optics, 2008, 13, 034007.	2.6	10
34	Fabrication and biological evaluation of uniform extracellular matrix coatings on discontinuous photolithography generated micropallet arrays. Journal of Biomedical Materials Research - Part A, 2010, 95A, 401-412.	4.0	10
35	A Digital Signal Processing-Assisted Microfluidic PCB for On-Chip Fluorescence Detection. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, 7, 846-854.	2.5	10
36	MEMS in laminates. , 2011, , .		9

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37	SU-8 Processing on a Variety of Substrates. Materials Research Society Symposia Proceedings, 1999, 605, 91.	0.1	8
38	Imaging and quantifying of microflow by phase-resolved optical Doppler tomography. Optics Communications, 2004, 232, 25-29.	2.1	8
39	StabilitySole: Embedded Sensor Insole for Balance and Gait Monitoring. Lecture Notes in Computer Science, 2011, , 171-177.	1.3	8
40	Integrated MEMS in package. Circuit World, 2012, 38, 184-192.	0.9	6
41	Large area magnetic micropallet arrays for cell colony sorting. Lab on A Chip, 2016, 16, 172-181.	6.0	6
42	Heterogeneous Integrated MEMS Enabled by AAO Process Technologies. ECS Journal of Solid State Science and Technology, 2016, 5, P657-P662.	1.8	5
43	Performance Improvement of Organic Thin-Film Transistors by Solution-Processed Crystallization of Pentacene at Room Temperature. IEEE Electron Device Letters, 2009, 30, 346-348.	3.9	4
44	MEMS optical acoustic sensors manufactured in laminates. , 2011, , .		4
45	MOEMS acoustic sensors for Structural Health Monitoring. , 2010, , .		3
46	Laminated microfluidic system for small sample protein analysis. Biomicrofluidics, 2014, 8, 014107.	2.4	3
47	3-D In-Bi-Sn Electrodes for Lab-on-PCB Cell Sorting. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 1295-1300.	2.5	3
48	Virtual Walls in Microchannels. , 2006, 2006, 2840-3.		2
49	RF MEMS asymmetric capacitive switch with high-isolation at selected low-microwave frequency. Microwave and Optical Technology Letters, 2007, 49, 702-706.	1.4	2
50	A Novel Membrane Process for RF MEMS Switches. Journal of Microelectromechanical Systems, 2010, 19, 715-717.	2.5	2
51	Multicolor Immunofluorescent Imaging of Complex Cellular Mixtures on Micropallet Arrays Enables the Identification of Single Cells of Defined Phenotype. Advanced Healthcare Materials, 2016, 5, 767-771.	7.6	2
52	Packaging Architecture for Fluidic Components in Microfluidic PCBs. , 2016, , .		2
53	Highly efficient cellular cloning using Ferro-core Micropallet Arrays. Scientific Reports, 2017, 7, 13081.	3.3	2
54	Large Scale Engineered Nanostructured Surfaces by Reactive Ion Etching with Kinetically Self-Assembled Non-continuous Metal Film as Etching Mask. Materials Research Society Symposia Proceedings, 2004, 849, 183.	0.1	1

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55	Microfabricated micropallets for enhancement of biomolecular techniques. Microfluidics and Nanofluidics, 2008, 5, 225-234.	2.2	1
56	Laminate MEMS for Heterogeneous Integrated Systems. Materials Research Society Symposia Proceedings, 2012, 1427, 26.	0.1	1
57	Resonance-based addressing in laminate MEMS devices. , 2012, , .		1
58	Integrated bioflexible electronic device for electrochemical analysis of blood. , 2015, , .		1
59	Deep, High Aspect Ratio Etches in Alumina Films for MEMS and Advanced Packages. , 2016, , .		1
60	A fluid collection system for dermal wounds in clinical investigations. Biomicrofluidics, 2016, 10, 024113.	2.4	1
61	Development of a novel completely-in-the-canal direct-drive hearing device. Laryngoscope, 2017, 127, 932-938.	2.0	1
62	Materials for Devices Applications in Life Sciences. Materials Science Forum, 2006, 510-511, 1066-1069.	0.3	0
63	Universal Microcarriers for Microfluidic Assays. , 2007, , 613.		0
64	Materials for Devices in Life Science Applications. Solid State Phenomena, 2007, 124-126, 1157-1160.	0.3	0
65	Novel Microtechnology System for Cytometric Analysis of Adherent Cell Populations. , 2010, , .		0
66	A novel microdroplet cassette for biochemical screening. , 2010, , .		0
67	A novel N x M array of resonance-based addressable MEMS actuators. , 2012, , .		0
68	Laminates for MEMS and BioMEMS. , 2012, , .		0
69	MEMS in laminates and package substrates. , 2013, , .		0
70	Frequency Multiplexed MEMS Actuators and Switches. IEEE Electron Device Letters, 2013, 34, 132-134.	3.9	0
71	Droplet Screens in Nanovolumes Using Static Conditions. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0