

R Scott Martin

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79
papers

3,434
citations

31
h-index

57
g-index

82
ext. papers

3,697
ext. citations

4.9
avg, IF

5.47
L-index

#	Paper	IF	Citations
79	Dual-electrode electrochemical detection for poly(dimethylsiloxane)-fabricated capillary electrophoresis microchips. <i>Analytical Chemistry</i> , 2000 , 72, 3196-202	7.8	280
78	Microchip capillary electrophoresis/electrochemistry. <i>Electrophoresis</i> , 2001 , 22, 2526-36	3.6	215
77	3D printed microfluidic devices with integrated versatile and reusable electrodes. <i>Lab on A Chip</i> , 2014 , 14, 2023-32	7.2	213
76	A 3D printed fluidic device that enables integrated features. <i>Analytical Chemistry</i> , 2013 , 85, 5622-6	7.8	177
75	3D-printed Microfluidic Devices: Fabrication, Advantages and Limitations-a Mini Review. <i>Analytical Methods</i> , 2016 , 8, 6005-6012	3.2	148
74	In-channel electrochemical detection for microchip capillary electrophoresis using an electrically isolated potentiostat. <i>Analytical Chemistry</i> , 2002 , 74, 1136-43	7.8	142
73	Microchip-based ethanol/oxygen biofuel cell. <i>Lab on A Chip</i> , 2005 , 5, 218-25	7.2	138
72	Recent developments in amperometric detection for microchip capillary electrophoresis. <i>Electrophoresis</i> , 2002 , 23, 3667-77	3.6	138
71	Fabrication and evaluation of a carbon-based dual-electrode detector for poly(dimethylsiloxane) electrophoresis chips. <i>Electrophoresis</i> , 2001 , 22, 242-8	3.6	121
70	Development of a microfabricated palladium decoupler/electrochemical detector for microchip capillary electrophoresis using a hybrid glass/poly(dimethylsiloxane) device. <i>Analytical Chemistry</i> , 2004 , 76, 2482-91	7.8	109
69	Carbon paste-based electrochemical detectors for microchip capillary electrophoresis/electrochemistry. <i>Analyst, The</i> , 2001 , 126, 277-80	5	101
68	Indirect measurement of nitric oxide production by monitoring nitrate and nitrite using microchip electrophoresis with electrochemical detection. <i>Analytical Chemistry</i> , 2002 , 74, 6370-7	7.8	75
67	Integration of microdialysis sampling and microchip electrophoresis with electrochemical detection. <i>Analytical Chemistry</i> , 2008 , 80, 9257-64	7.8	67
66	On-line coupling of microdialysis sampling with microchip-based capillary electrophoresis. <i>Analytical Chemistry</i> , 2004 , 76, 6440-7	7.8	67
65	Deformation-induced release of ATP from erythrocytes in a poly(dimethylsiloxane)-based microchip with channels that mimic resistance vessels. <i>Analytical Chemistry</i> , 2004 , 76, 4849-55	7.8	58
64	Amperometric determination of nitric oxide derived from pulmonary artery endothelial cells immobilized in a microchip channel. <i>Analyst, The</i> , 2004 , 129, 995-1000	5	56
63	Addressing a vascular endothelium array with blood components using underlying microfluidic channels. <i>Lab on A Chip</i> , 2007 , 7, 1256-9	7.2	55

62	Design and characterization of poly(dimethylsiloxane)-based valves for interfacing continuous-flow sampling to microchip electrophoresis. <i>Analytical Chemistry</i> , 2006 , 78, 1042-51	7.8	53
61	Fabrication of carbon microelectrodes with a micromolding technique and their use in microchip-based flow analyses. <i>Analyst, The</i> , 2004 , 129, 400-5	5	53
60	Microfluidic technologies as platforms for performing quantitative cellular analyses in an in vitro environment. <i>Analyst, The</i> , 2006 , 131, 1197-206	5	47
59	Integration of on-chip peristaltic pumps and injection valves with microchip electrophoresis and electrochemical detection. <i>Electrophoresis</i> , 2010 , 31, 2534-40	3.6	46
58	Microfluidic transendothelial electrical resistance measurement device that enables blood flow and postgrowth experiments. <i>Analytical Chemistry</i> , 2011 , 83, 4296-301	7.8	45
57	Review of 3D Cell Culture with Analysis in Microfluidic Systems. <i>Analytical Methods</i> , 2019 , 11, 4220-4232	3.2	44
56	PolyJet 3D-Printed Enclosed Microfluidic Channels without Photocurable Supports. <i>Analytical Chemistry</i> , 2019 , 91, 6910-6917	7.8	41
55	Microchip-based electrochemical detection using a 3-D printed wall-jet electrode device. <i>Analyst, The</i> , 2016 , 141, 862-9	5	41
54	Sheath-flow microfluidic approach for combined surface enhanced Raman scattering and electrochemical detection. <i>Analytical Chemistry</i> , 2015 , 87, 4347-55	7.8	40
53	Integration of a carbon microelectrode with a microfabricated palladium decoupler for use in microchip capillary electrophoresis/electrochemistry. <i>Electrophoresis</i> , 2005 , 26, 202-10	3.6	40
52	Use of micromolded carbon dual electrodes with a palladium decoupler for amperometric detection in microchip electrophoresis. <i>Electrophoresis</i> , 2006 , 27, 5032-42	3.6	38
51	Use of microchip-based hydrodynamic focusing to measure the deformation-induced release of ATP from erythrocytes. <i>Analyst, The</i> , 2006 , 131, 930-7	5	38
50	A review of electrospinning manipulation techniques to direct fiber deposition and maximize pore size. <i>Electrospinning</i> , 2017 , 2, 46-61		37
49	Integration of multiple components in polystyrene-based microfluidic devices part I: fabrication and characterization. <i>Analyst, The</i> , 2013 , 138, 129-36	5	31
48	Detecting thiols in a microchip device using micromolded carbon ink electrodes modified with cobalt phthalocyanine. <i>Analyst, The</i> , 2006 , 131, 202-7	5	31
47	Insert-based microfluidics for 3D cell culture with analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2018 , 410, 3025-3035	4.4	29
46	Use of electrospinning and dynamic air focusing to create three-dimensional cell culture scaffolds in microfluidic devices. <i>Analyst, The</i> , 2016 , 141, 5311-20	5	29
45	Integration of continuous-flow sampling with microchip electrophoresis using poly(dimethylsiloxane)-based valves in a reversibly sealed device. <i>Electrophoresis</i> , 2007 , 28, 2478-88	3.6	27

44	Use of epoxy-embedded electrodes to integrate electrochemical detection with microchip-based analysis systems. <i>Electrophoresis</i> , 2011 , 32, 822-31	3.6	25
43	Microchip-based integration of cell immobilization, electrophoresis, post-column derivatization, and fluorescence detection for monitoring the release of dopamine from PC 12 cells. <i>Analyst, The</i> , 2008 , 133, 1358-66	5	25
42	Use of a corona discharge to selectively pattern a hydrophilic/hydrophobic interface for integrating segmented flow with microchip electrophoresis and electrochemical detection. <i>Analytical Chemistry</i> , 2011 , 83, 5996-6003	7.8	24
41	Use of 3D Printing and Modular Microfluidics to Integrate Cell Culture, Injections and Electrochemical Analysis. <i>Analytical Methods</i> , 2018 , 10, 3364-3374	3.2	23
40	Integration of microchip electrophoresis with electrochemical detection using an epoxy-based molding method to embed multiple electrode materials. <i>Electrophoresis</i> , 2011 , 32, 3121-8	3.6	23
39	Microchip-based electrochemical detection for monitoring cellular systems. <i>Analytical and Bioanalytical Chemistry</i> , 2013 , 405, 3013-20	4.4	22
38	Encapsulated electrodes for microchip devices: microarrays and platinized electrodes for signal enhancement. <i>Electrophoresis</i> , 2013 , 34, 2092-100	3.6	22
37	Rapid fabrication of poly(dimethylsiloxane)-based microchip capillary electrophoresis devices using CO ₂ laser ablation. <i>Analyst, The</i> , 2005 , 130, 924-30	5	22
36	Role of Surface Adsorption in the Surface-Enhanced Raman Scattering and Electrochemical Detection of Neurotransmitters. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 20624-20633	3.8	21
35	Integration of multiple components in polystyrene-based microfluidic devices part II: cellular analysis. <i>Analyst, The</i> , 2013 , 138, 137-43	5	21
34	Electrochemical Oscillations of Nickel Electrodeposition in an Epoxy-Based Microchip Flow Cell. <i>Journal of Electroanalytical Chemistry</i> , 2011 , 659, 92-100	4.1	21
33	Selective detection of endogenous thiols using microchip-based flow analysis and mercury/gold amalgam microelectrodes. <i>Analyst, The</i> , 2009 , 134, 372-9	5	21
32	Integrated hybrid polystyrene-polydimethylsiloxane device for monitoring cellular release with microchip electrophoresis and electrochemical detection. <i>Analytical Methods</i> , 2015 , 7, 884-893	3.2	20
31	A microchip-based endothelium mimic utilizing open reservoirs for cell immobilization and integrated carbon ink microelectrodes for detection. <i>Analytical and Bioanalytical Chemistry</i> , 2009 , 393, 599-605	4.4	20
30	Integration of serpentine channels for microchip electrophoresis with a palladium decoupler and electrochemical detection. <i>Electrophoresis</i> , 2009 , 30, 3347-54	3.6	19
29	Microchip-based 3D-Cell Culture Using Polymer Nanofibers Generated by Solution Blow Spinning. <i>Analytical Methods</i> , 2017 , 9, 3274-3283	3.2	18
28	Synchronized Current Oscillations of Formic Acid Electro-oxidation in a Microchip-based Dual-Electrode Flow Cell. <i>Electrochimica Acta</i> , 2009 , 55, 395-403	6.7	18
27	Use of Recordable Compact Discs to Fabricate Electrodes for Microchip-based Analysis Systems. <i>Analytical Methods</i> , 2010 , 2, 811-816	3.2	16

26	Monitoring erythrocytes in a microchip channel that narrows uniformly: towards an improved microfluidic-based mimic of the microcirculation. <i>Journal of Chromatography A</i> , 2006 , 1111, 220-7	4.5	15
25	Integrating 3D Cell Culture of PC12 Cells with Microchip-Based Electrochemical Detection. <i>Analytical Methods</i> , 2019 , 11, 1064-1072	3.2	14
24	Development of an on-chip injector for microchip-based flow analyses using laminar flow. <i>Lab on A Chip</i> , 2007 , 7, 1589-96	7.2	13
23	Use of microchip electrophoresis and a palladium/mercury amalgam electrode for the separation and detection of thiols. <i>Analytical Methods</i> , 2011 , 3, 1072	3.2	12
22	Direct embedding and versatile placement of electrodes in 3D printed microfluidic-devices. <i>Analyst, The</i> , 2020 , 145, 3274-3282	5	11
21	The Use of a 3D-Printed Microfluidic Device and Pressure Mobilization for Integrating Capillary Electrophoresis with Electrochemical Detection. <i>Electroanalysis</i> , 2018 , 30, 2241-2249	3	11
20	Encapsulation of Fluidic Tubing and Microelectrodes in Microfluidic Devices: Integrating Off-Chip Process and Coupling Conventional Capillary Electrophoresis with Electrochemical Detection. <i>Analytical Methods</i> , 2013 , 5, 4220-4229	3.2	11
19	Use of a Carbon-ink Microelectrode Array for Signal Enhancement in Microchip Electrophoresis with Electrochemical Detection. <i>Electroanalysis</i> , 2010 , 22, 2141-2146	3	11
18	Interfacing amperometric detection with microchip capillary electrophoresis. <i>Methods in Molecular Biology</i> , 2006 , 339, 85-112	1.4	11
17	Microfluidic device with tunable post arrays and integrated electrodes for studying cellular release. <i>Analyst, The</i> , 2014 , 139, 5686-94	5	10
16	Chemical imaging of pharmaceutical materials: fabrication of micropatterned resolution targets. <i>Analytical Chemistry</i> , 2008 , 80, 5706-12	7.8	8
15	Coupling Microdialysis Sampling to Microchip Electrophoresis in a Reversibly Sealed Device. <i>Journal of the Association for Laboratory Automation</i> , 2007 , 12, 296-302		7
14	Fabrication and Characterization of All-Polystyrene Microfluidic Devices with Integrated Electrodes and Tubing. <i>Analytical Methods</i> , 2015 , 7, 2968-2976	3.2	6
13	Fully 3D printed fluidic devices with integrated valves and pumps for flow injection analysis. <i>Analytical Methods</i> , 2021 , 13, 5017-5024	3.2	6
12	Simultaneous analysis of vascular norepinephrine and ATP release using an integrated microfluidic system. <i>Journal of Neuroscience Methods</i> , 2016 , 266, 68-77	3	6
11	Microfluidic device using a gold pillar array and integrated electrodes for on-chip endothelial cell immobilization, direct RBC contact, and amperometric detection of nitric oxide. <i>Electroanalysis</i> , 2019 , 31, 1409-1415	3	5
10	3D-Printed Microfluidic Device with In-line Amperometric Detection that Also Enables Multi-Modal Detection. <i>Analytical Methods</i> , 2020 , 12, 2046-2051	3.2	5
9	Enhanced Microchip Electrophoresis Separations Combined with Electrochemical Detection Utilizing a Capillary Embedded in Polystyrene. <i>Analytical Methods</i> , 2018 , 10, 37-45	3.2	5

8	Integrated Electrodes and Electrospray Emitter for Polymer Microfluidic Nanospray-MS Interface. <i>Analytical Methods</i> , 2016 , 8, 5152-5157	3.2	4
7	Periodic and complex waveform current oscillations of copper electrodisolution in phosphoric acid in an epoxy-based microchip flow cell. <i>Journal of Solid State Electrochemistry</i> , 2015 , 19, 3241-3251	2.6	3
6	Fabrication and evaluation of a 3-dimensional microchip device where carbon microelectrodes individually address channels in the separate fluidic layers. <i>Analyst, The</i> , 2007 , 132, 1246-53	5	3
5	A Hybrid Nanofiber/Paper Cell Culture Platform for Building a 3D Blood-brain Barrier Model. <i>Small Methods</i> , 2021 , 5, 2100592	12.8	2
4	Evaluation and optimization of PolyJet 3D-printed materials for cell culture studies.. <i>Analytical and Bioanalytical Chemistry</i> , 2022 , 1	4.4	2
3	Microchip capillary electrophoresis/ electrochemistry		1
2	PolyJet-Based 3D Printing against Micromolds to Produce Channel Structures for Microchip Electrophoresis.. <i>ACS Omega</i> , 2022 , 7, 13362-13370	3.9	0
1	Ultrahigh Sensitivity Analysis of Amino Acids and Peptides by Capillary Liquid Chromatography with Electrochemical Detection 2002 , 52-82		