R Scott Martin

List of Publications by Year
in descending order

81 papers	4,016 citations	126708 33 h-index	118652 62 g-index
82 all docs	82 docs citations	82 times ranked	3337 citing authors

#	Article	IF	Citations
1	Dual-Electrode Electrochemical Detection for Poly(dimethylsiloxane)-Fabricated Capillary Electrophoresis Microchips. Analytical Chemistry, 2000, 72, 3196-3202.	3.2	312
2	3D printed microfluidic devices with integrated versatile and reusable electrodes. Lab on A Chip, 2014, 14, 2023-2032.	3.1	248
3	Microchip capillary electrophoresis/ electrochemistry. Electrophoresis, 2001, 22, 2526-2536.	1.3	239
4	3D-printed microfluidic devices: fabrication, advantages and limitationsâ€"a mini review. Analytical Methods, 2016, 8, 6005-6012.	1.3	212
5	A 3D Printed Fluidic Device that Enables Integrated Features. Analytical Chemistry, 2013, 85, 5622-5626.	3.2	199
6	In-Channel Electrochemical Detection for Microchip Capillary Electrophoresis Using an Electrically Isolated Potentiostat. Analytical Chemistry, 2002, 74, 1136-1143.	3.2	180
7	Recent developments in amperometric detection for microchip capillary electrophoresis. Electrophoresis, 2002, 23, 3667-3677.	1.3	157
8	Microchip-based ethanol/oxygen biofuel cell. Lab on A Chip, 2005, 5, 218.	3.1	156
9	Fabrication and evaluation of a carbon-based dual-electrode detector for poly(dimethylsiloxane) electrophoresis chips. Electrophoresis, 2001, 22, 242-248.	1.3	137
10	Development of a Microfabricated Palladium Decoupler/Electrochemical Detector for Microchip Capillary Electrophoresis Using a Hybrid Glass/Poly(dimethylsiloxane) Device. Analytical Chemistry, 2004, 76, 2482-2491.	3.2	134
11	Carbon paste-based electrochemical detectors for microchip capillary electrophoresis/electrochemistry. Analyst, The, 2001, 126, 277-280.	1.7	120
12	Indirect Measurement of Nitric Oxide Production by Monitoring Nitrate and Nitrite Using Microchip Electrophoresis with Electrochemical Detection. Analytical Chemistry, 2002, 74, 6370-6377.	3.2	92
13	Review of 3D cell culture with analysis in microfluidic systems. Analytical Methods, 2019, 11, 4220-4232.	1.3	86
14	On-Line Coupling of Microdialysis Sampling with Microchip-Based Capillary Electrophoresis. Analytical Chemistry, 2004, 76, 6440-6447.	3.2	73
15	Integration of Microdialysis Sampling and Microchip Electrophoresis with Electrochemical Detection. Analytical Chemistry, 2008, 80, 9257-9264.	3.2	70
16	PolyJet 3D-Printed Enclosed Microfluidic Channels without Photocurable Supports. Analytical Chemistry, 2019, 91, 6910-6917.	3.2	67
17	Deformation-Induced Release of ATP from Erythrocytes in a Poly(dimethylsiloxane)-Based Microchip with Channels That Mimic Resistance Vessels. Analytical Chemistry, 2004, 76, 4849-4855.	3.2	64
18	Amperometric determination of nitric oxide derived from pulmonary artery endothelial cells immobilized in a microchip channel. Analyst, The, 2004, 129, 995.	1.7	61

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19	Fabrication of carbon microelectrodes with a micromolding technique and their use in microchip-based flow analyses. Analyst, The, 2004, 129, 400.	1.7	60
20	Addressing a vascular endothelium array with blood components using underlying microfluidic channels. Lab on A Chip, 2007, 7, 1256.	3.1	59
21	Design and Characterization of Poly(dimethylsiloxane)-Based Valves for Interfacing Continuous-Flow Sampling to Microchip Electrophoresis. Analytical Chemistry, 2006, 78, 1042-1051.	3.2	58
22	A review of electrospinning manipulation techniques to direct fiber deposition and maximize pore size. Electrospinning, 2017, 2, 46-61.	1.6	54
23	Microfluidic technologies as platforms for performing quantitative cellular analyses in an in vitro environment. Analyst, The, 2006, 131, 1197.	1.7	49
24	Microfluidic Transendothelial Electrical Resistance Measurement Device that Enables Blood Flow and Postgrowth Experiments. Analytical Chemistry, 2011, 83, 4296-4301.	3.2	49
25	Integration of onâ€chip peristaltic pumps and injection valves with microchip electrophoresis and electrochemical detection. Electrophoresis, 2010, 31, 2534-2540.	1.3	48
26	Microchip-based electrochemical detection using a 3-D printed wall-jet electrode device. Analyst, The, 2016, 141, 862-869.	1.7	48
27	Integration of a carbon microelectrode with a microfabricated palladium decoupler for use in microchip capillary electrophoresis/ electrochemistry. Electrophoresis, 2005, 26, 202-210.	1.3	43
28	Sheath-Flow Microfluidic Approach for Combined Surface Enhanced Raman Scattering and Electrochemical Detection. Analytical Chemistry, 2015, 87, 4347-4355.	3.2	43
29	Use of microchip-based hydrodynamic focusing to measure the deformation-induced release of ATP from erythrocytes. Analyst, The, 2006, 131, 930.	1.7	40
30	Use of micromolded carbon dual electrodes with a palladium decoupler for amperometric detection in microchip electrophoresis. Electrophoresis, 2006, 27, 5032-5042.	1.3	40
31	Insert-based microfluidics for 3D cell culture with analysis. Analytical and Bioanalytical Chemistry, 2018, 410, 3025-3035.	1.9	40
32	Use of electrospinning and dynamic air focusing to create three-dimensional cell culture scaffolds in microfluidic devices. Analyst, The, 2016, 141, 5311-5320.	1.7	36
33	Detecting thiols in a microchip device using micromolded carbon ink electrodes modified with cobalt phthalocyanine. Analyst, The, 2006, 131, 202-207.	1.7	33
34	Integration of multiple components in polystyrene-based microfluidic devices part I: fabrication and characterization. Analyst, The, 2013, 138, 129-136.	1.7	33
35	Integration of continuous-flow sampling with microchip electrophoresis using poly(dimethylsiloxane)-based valves in a reversibly sealed device. Electrophoresis, 2007, 28, 2478-2488.	1.3	28
36	Use of 3D printing and modular microfluidics to integrate cell culture, injections and electrochemical analysis. Analytical Methods, 2018, 10, 3364-3374.	1.3	28

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37	Use of epoxyâ€embedded electrodes to integrate electrochemical detection with microchipâ€based analysis systems. Electrophoresis, 2011, 32, 822-831.	1.3	27
38	Role of Surface Adsorption in the Surface-Enhanced Raman Scattering and Electrochemical Detection of Neurotransmitters. Journal of Physical Chemistry C, 2016, 120, 20624-20633.	1.5	27
39	Use of a Corona Discharge to Selectively Pattern a Hydrophilic/Hydrophobic Interface for Integrating Segmented Flow with Microchip Electrophoresis and Electrochemical Detection. Analytical Chemistry, 2011, 83, 5996-6003.	3.2	26
40	Microchip-based integration of cell immobilization, electrophoresis, post-column derivatization, and fluorescence detection for monitoring the release of dopamine from PC 12 cells. Analyst, The, 2008, 133, 1358.	1.7	25
41	Microchip-based electrochemical detection for monitoring cellular systems. Analytical and Bioanalytical Chemistry, 2013, 405, 3013-3020.	1.9	25
42	Electrochemical oscillations of nickel electrodissolution in an epoxy-based microchip flow cell. Journal of Electroanalytical Chemistry, 2011, 659, 92-100.	1.9	24
43	Encapsulated electrodes for microchip devices: Microarrays and platinized electrodes for signal enhancement. Electrophoresis, 2013, 34, 2092-2100.	1.3	24
44	Integration of microchip electrophoresis with electrochemical detection using an epoxyâ€based molding method to embed multiple electrode materials. Electrophoresis, 2011, 32, 3121-3128.	1.3	23
45	Rapid fabrication of poly(dimethylsiloxane)-based microchip capillary electrophoresis devices using CO2 laser ablation. Analyst, The, 2005, 130, 924.	1.7	22
46	A microchip-based endothelium mimic utilizing open reservoirs for cell immobilization and integrated carbon ink microelectrodes for detection. Analytical and Bioanalytical Chemistry, 2009, 393, 599-605.	1.9	22
47	Integration of multiple components in polystyrene-based microfluidic devices part II: cellular analysis. Analyst, The, 2013, 138, 137-143.	1.7	22
48	Integrated hybrid polystyreneâ€“polydimethylsiloxane device for monitoring cellular release with microchip electrophoresis and electrochemical detection. Analytical Methods, 2015, 7, 884-893.	1.3	22
49	Selective detection of endogenous thiols using microchip-based flow analysis and mercury/gold amalgam microelectrodes. Analyst, The, 2009, 134, 372-379.	1.7	21
50	Microchip-based 3D-cell culture using polymer nanofibers generated by solution blow spinning. Analytical Methods, 2017, 9, 3274-3283.	1.3	20
51	Integration of serpentine channels for microchip electrophoresis with a palladium decoupler and electrochemical detection. Electrophoresis, 2009, 30, 3347-3354.	1.3	19
52	Synchronized current oscillations of formic acid electro-oxidation in a microchip-based dual-electrode flow cell. Electrochimica Acta, 2009, 55, 395-403.	2.6	19
53	Monitoring erythrocytes in a microchip channel that narrows uniformly: Towards an improved microfluidic-based mimic of the microcirculation. Journal of Chromatography A, 2006, 1111, 220-227.	1.8	18
54	Use of recordable compact discs to fabricate electrodes for microchip-based analysis systems. Analytical Methods, 2010, 2, 811.	1.3	17

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55	Integrating 3D cell culture of PC12 cells with microchip-based electrochemical detection. Analytical Methods, 2019, 11, 1064-1072.	1.3	16
56	Direct embedding and versatile placement of electrodes in 3D printed microfluidic-devices. Analyst, The, 2020, 145, 3274-3282.	1.7	15
57	Interfacing Amperometric Detection With Microchip Capillary Electrophoresis. , 2006, 339, 85-112.		13
58	Development of an on-chip injector for microchip-based flow analyses using laminar flow. Lab on A Chip, 2007, 7, 1589.	3.1	13
59	The Use of a 3Dâ€printed Microfluidic Device and Pressure Mobilization for Integrating Capillary Electrophoresis with Electrochemical Detection. Electroanalysis, 2018, 30, 2241-2249.	1.5	13
60	Use of a Carbonâ€Ink Microelectrode Array for Signal Enhancement in Microchip Electrophoresis with Electrochemical Detection. Electroanalysis, 2010, 22, 2141-2146.	1.5	12
61	Use of microchip electrophoresis and a palladium/mercury amalgam electrode for the separation and detection of thiols. Analytical Methods, 2011, 3, 1072.	1.3	12
62	Encapsulation of fluidic tubing and microelectrodes in microfluidic devices: integrating off-chip process and coupling conventional capillary electrophoresis with electrochemical detection. Analytical Methods, 2013, 5, 4220.	1.3	11
63	Microfluidic device with tunable post arrays and integrated electrodes for studying cellular release. Analyst, The, 2014, 139, 5686-5694.	1.7	11
64	Evaluation and optimization of PolyJet 3D-printed materials for cell culture studies. Analytical and Bioanalytical Chemistry, 2022, 414, 3329-3339.	1.9	11
65	Fully 3D printed fluidic devices with integrated valves and pumps for flow injection analysis. Analytical Methods, 2021, 13, 5017-5024.	1.3	10
66	A Hybrid Nanofiber/Paper Cell Culture Platform for Building a 3D Bloodâ€"Brain Barrier Model. Small Methods, 2021, 5, 2100592.	4.6	9
67	Coupling Microdialysis Sampling to Microchip Electrophoresis in a Reversibly Sealed Device. Journal of the Association for Laboratory Automation, 2007, 12, 296-302.	2.8	8
68	Chemical Imaging of Pharmaceutical Materials: Fabrication of Micropatterned Resolution Targets. Analytical Chemistry, 2008, 80, 5706-5712.	3.2	8
69	Fabrication and characterization of all-polystyrene microfluidic devices with integrated electrodes and tubing. Analytical Methods, 2015, 7, 2968-2976.	1.3	8
70	3D-printed microfluidic device with in-line amperometric detection that also enables multi-modal detection. Analytical Methods, 2020, 12, 2046-2051.	1.3	8
71	Simultaneous analysis of vascular norepinephrine and ATP release using an integrated microfluidic system. Journal of Neuroscience Methods, 2016, 266, 68-77.	1.3	7
72	Enhanced microchip electrophoresis separations combined with electrochemical detection utilizing a capillary embedded in polystyrene. Analytical Methods, 2018, 10, 37-45.	1.3	6

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73	Microfluidic Device Using a Gold Pillar Array and Integrated Electrodes for Onâ€chip Endothelial Cell Immobilization, Direct RBC Contact, and Amperometric Detection of Nitric Oxide. Electroanalysis, 2019, 31, 1409-1415.	1.5	6
74	Periodic and complex waveform current oscillations of copper electrodissolution in phosphoric acid in an epoxy-based microchip flow cell. Journal of Solid State Electrochemistry, 2015, 19, 3241-3251.	1.2	5
75	Fabrication and evaluation of a 3-dimensional microchip device where carbon microelectrodes individually address channels in the separate fluidic layers. Analyst, The, 2007, 132, 1246.	1.7	4
76	Integrated electrodes and electrospray emitter for polymer microfluidic nanosprayâ€"MS interface. Analytical Methods, 2016, 8, 5152-5157.	1.3	4
77	PolyJet-Based 3D Printing against Micromolds to Produce Channel Structures for Microchip Electrophoresis. ACS Omega, 2022, 7, 13362-13370.	1.6	4
78	In celebration of the 60th birthday of 2 microfluidics pioneers: Professor Susan Lunte and Professor James Landers. Analytical Methods, 2018, 10, 3433-3435.	1.3	1
79	Microchip capillary electrophoresis/ electrochemistry. , 0, .		1
80	3D printed devices with integrated collagen scaffolds for cell culture studies including transepithelial/transendothelial electrical resistance (TEER) measurements. Analytica Chimica Acta, 2022, 1221, 340166.	2.6	1
81	Ultrahigh Sensitivity Analysis of Amino Acids and Peptides by Capillary Liquid Chromatography with Electrochemical Detection. , 2002, , 52-82.		0