

Rodrigo Martinez-Duarte

List of Publications by Year in descending order

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67
papers

1,291
citations

394421

19
h-index

361022

35
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all docs

67
docs citations

67
times ranked

1431
citing authors

#	ARTICLE	IF	CITATIONS
1	Microfabrication technologies in dielectrophoresis applications—A review. <i>Electrophoresis</i> , 2012, 33, 3110-3132.	2.4	157
2	The integration of 3D carbon-electrode dielectrophoresis on a CD-like centrifugal microfluidic platform. <i>Lab on A Chip</i> , 2010, 10, 1030.	6.0	129
3	One-step maskless grayscale lithography for the fabrication of 3-dimensional structures in SU-8. <i>Sensors and Actuators B: Chemical</i> , 2011, 153, 125-134.	7.8	103
4	A novel approach to dielectrophoresis using carbon electrodes. <i>Electrophoresis</i> , 2011, 32, 2385-2392.	2.4	97
5	Dielectrophoresis of lambda-DNA using 3D carbon electrodes. <i>Electrophoresis</i> , 2013, 34, 1113-1122.	2.4	62
6	SU-8 Photolithography as a Toolbox for Carbon MEMS. <i>Micromachines</i> , 2014, 5, 766-782.	2.9	61
7	Dielectrophoresis-based purification of antibiotic-treated bacterial subpopulations. <i>Lab on A Chip</i> , 2014, 14, 1850-1857.	6.0	61
8	On-line separation of bacterial cells by carbon-electrode dielectrophoresis. <i>Electrophoresis</i> , 2010, 31, 2921-2928.	2.4	60
9	A study on the limits and advantages of using a desktop cutter plotter to fabricate microfluidic networks. <i>Microfluidics and Nanofluidics</i> , 2015, 19, 973-985.	2.2	60
10	Dielectrophoretic Separation of Live and Dead Monocytes Using 3D Carbon-Electrodes. <i>Sensors</i> , 2017, 17, 2691.	3.8	53
11	Shrinkage of SU-8 microstructures during carbonization. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 131, 17-27.	5.5	49
12	Very High Throughput Electrical Cell Lysis and Extraction of Intracellular Compounds Using 3D Carbon Electrodes in Lab-on-a-Chip Devices. <i>Micromachines</i> , 2012, 3, 574-581.	2.9	33
13	Challenges in the Use of Compact Disc-Based Centrifugal Microfluidics for Healthcare Diagnostics at the Extreme Point of Care. <i>Micromachines</i> , 2016, 7, 52.	2.9	29
14	Enrichment of diluted cell populations from large sample volumes using 3D carbon-electrode dielectrophoresis. <i>Biomicrofluidics</i> , 2016, 10, 033107.	2.4	27
15	Carbon origami: A method to fabricate lightweight carbon cellular materials. <i>Carbon</i> , 2018, 133, 140-149.	10.3	25
16	A sustainable approach for tungsten carbide synthesis using renewable biopolymers. <i>Ceramics International</i> , 2017, 43, 10546-10553.	4.8	22
17	Dielectrophoretic characterization and separation of monocytes and macrophages using 3D carbon-electrodes. <i>Electrophoresis</i> , 2019, 40, 315-321.	2.4	22
18	Increasing PCR sensitivity by removal of polymerase inhibitors in environmental samples by using dielectrophoresis. <i>Biosensors and Bioelectronics</i> , 2013, 43, 297-303.	10.1	21

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19	Visualization and measurement of capillary-driven blood flow using spectral domain optical coherence tomography. <i>Microfluidics and Nanofluidics</i> , 2012, 13, 227-237.	2.2	19
20	Characterization of the Dielectrophoretic Response of Different Candida Strains Using 3D Carbon Microelectrodes. <i>Micromachines</i> , 2020, 11, 255.	2.9	18
21	Analytical methodologies using carbon substrates developed by pyrolysis. <i>Analytical Methods</i> , 2016, 8, 4163-4176.	2.7	16
22	Electrically driven microfluidic platforms for exosome manipulation and characterization. <i>Electrophoresis</i> , 2022, 43, 327-339.	2.4	16
23	Automated pick and transfer of targeted cells using dielectrophoresis. <i>Lab on A Chip</i> , 2019, 19, 2512-2525.	6.0	15
24	Numerical Model of Streaming DEP for Stem Cell Sorting. <i>Micromachines</i> , 2016, 7, 217.	2.9	14
25	Assessing the importance of the root mean square (RMS) value of different waveforms to determine the strength of a dielectrophoresis trapping force. <i>Electrophoresis</i> , 2017, 38, 2561-2564.	2.4	14
26	Architected Tungsten Carbide Electrodes Using Origami Techniques. <i>Advanced Engineering Materials</i> , 2019, 21, 1900290.	3.5	14
27	Shrinkage Analysis of Carbon Micro Structures Derived from SU-8 Photoresist. <i>ECS Transactions</i> , 2016, 72, 27-33.	0.5	13
28	Perspectives of Micro and Nanofabrication of Carbon for Electrochemical and Microfluidic Applications. , 2010, , 181-263.		9
29	Nondimensional Streaming Dielectrophoresis Number for a System of Continuous Particle Separation. <i>Analytical Chemistry</i> , 2019, 91, 4357-4367.	6.5	9
30	A critical review on the fabrication techniques that can enable higher throughput in dielectrophoresis devices. <i>Electrophoresis</i> , 2021, , .	2.4	8
31	Mechanical Properties and Process Improvement of Tungsten Carbide Additively Manufactured with Renewable Biopolymers. <i>Procedia Manufacturing</i> , 2019, 34, 704-711.	1.9	6
32	Highly Localized Enrichment of Trypanosoma brucei Parasites Using Dielectrophoresis. <i>Micromachines</i> , 2020, 11, 625.	2.9	6
33	Comparing the performance of different extruders in the Robocasting of biopolymer-nanoparticle composites towards the fabrication of complex geometries of porous Tungsten Carbide. <i>Procedia Manufacturing</i> , 2021, 53, 338-342.	1.9	6
34	The impact of using different renewable films in the synthesis and microstructure of carbonaceous materials applicable in origami-inspired manufacturing. <i>Materialia</i> , 2020, 11, 100734.	2.7	6
35	Fabrication challenges and perspectives on the use of carbon electrode dielectrophoresis in sample preparation. <i>IET Nanobiotechnology</i> , 2017, 11, 127-133.	3.8	5
36	An application specific multi-channel stimulator for electrokinetically-driven microfluidic devices. , 2011, , .		4

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37	Quantitative Investigation for the Dielectrophoretic Effect of Fluorescent Dyes at Single-Cell Resolution. ACS Omega, 2018, 3, 7243-7246.	3.5	4
38	Comparing Carbon Origami from Polyaramid and Cellulose Sheets. Micromachines, 2022, 13, 503.	2.9	4
39	A novel method for amorphous metal micromolding using Carbon MEMS. , 2009, , .		2
40	Biomimetic Pieris rapae's Nanostructure and Its Use as a Simple Sucrose Sensor. Micromachines, 2014, 5, 216-227.	2.9	2
41	Additive Manufacturing of Carbides Using Renewable Resources. , 2015, , .		2
42	Tuning the mechanical stiffness of lightweight carbon origami. Materials Today: Proceedings, 2022, 48, 16-20.	1.8	2
43	Carbon MEMS. , 2016, , 455-461.		2
44	The integration of 3D carbon Dielectrophoresis on a rotating platform. , 2009, , .		1
45	Synthesis of Titanium Oxycarbide through Carbothermal Reduction of Titanium Dioxide Nanoparticles and Renewable Biopolymers. ECS Transactions, 2016, 72, 17-23.	0.5	1
46	Fabrication of Lightweight 3D Complex Shapes of Cellular Carbonaceous Materials Using Origami. ECS Transactions, 2018, 85, 29-36.	0.5	1
47	Carbon-Electrode Dielectrophoresis for Concentrating Trypanosoma Brucei. ECS Meeting Abstracts, 2017, MA2017-01, 2005-2005.	0.0	1
48	Carbon Cone Electrodes for Selection, Manipulation and Lysis of Single Cells. , 2015, , .		0
49	3D Carbon-Electrode Dielectrophoresis for Enrichment of a Small Cell Population from a Large Sample Volume. ECS Transactions, 2016, 72, 97-103.	0.5	0
50	3D Printing of Carbides Using Renewable Resources. ECS Transactions, 2018, 85, 37-44.	0.5	0
51	Single Cell Level Dielectrophoretic Responses & Dielectrophoretic Deformations of Monocytes to Quantify Population Heterogeneity. , 2020, 2020, 2221-2226.		0
52	Carbon MEMS. , 2015, , 1-8.		0
53	Shrinkage Analysis of Carbon Micro Structures Derived from SU-8 Photoresist. ECS Meeting Abstracts, 2016, , .	0.0	0
54	3D Carbon-Electrode Dielectrophoresis for Enrichment of a Small Cell Population from a Large Sample Volume. ECS Meeting Abstracts, 2016, , .	0.0	0

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55	Synthesis of Titanium Oxycarbide through Carbothermal Reduction of Titanium Dioxide Nanoparticles and Renewable Biopolymers. ECS Meeting Abstracts, 2016, , .	0.0	0
56	Assessing the Advantages of Using Square Wave Signals for Particle Trapping in Carbon-Electrode Dielectrophoresis. ECS Meeting Abstracts, 2016, , .	0.0	0
57	Fabricating Suspended Carbon Wires Using SU-8 Photolithography. ECS Meeting Abstracts, 2016, , .	0.0	0
58	Studying the Behavior of T. Brucei Under Electric Field Gradients Implemented Using Optoelectronic Tweezers. ECS Meeting Abstracts, 2017, , .	0.0	0
59	Fabrication of 3D Shapes of Carbon By Origami. ECS Meeting Abstracts, 2017, , .	0.0	0
60	Studying the Attraction of T. Brucei to Different Materials and Landscapes. ECS Meeting Abstracts, 2017, , .	0.0	0
61	A Novel Approach to the Sustainable Synthesis of Carbon Fibers. ECS Meeting Abstracts, 2017, , .	0.0	0
62	A Novel Approach for the Sustainable Synthesis of Carbon Fibers Using Light Induced Dielectrophoresis of Bacteria. ECS Meeting Abstracts, 2018, , .	0.0	0
63	Micro-Molded Glassy Carbon Electrodes for High Throughput Dielectrophoresis. ECS Meeting Abstracts, 2018, , .	0.0	0
64	Carbon-Electrode Dielectrophoresis to Concentrate Trypanosoma Brucei. ECS Meeting Abstracts, 2018, , .	0.0	0
65	Carbon-Electrode Dielectrophoresis to Identify Candida strains. ECS Meeting Abstracts, 2019, , .	0.0	0
66	The Impact of Using Different Renewable Films in the Synthesis and Microstructure of Carbonaceous Materials Applicable in Origami-Inspired Manufacturing. SSRN Electronic Journal, 0, , .	0.4	0
67	Editorial for the Special Issue on Micromachines for Dielectrophoresis. Micromachines, 2022, 13, 417.	2.9	0