

Irma ChacÃ³n

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

5,726
citations

76294

40
h-index

85498

71
g-index

83
all docs

83
docs citations

83
times ranked

6358
citing authors

#	ARTICLE	IF	CITATIONS
1	AuNP aggregation-induced quantitative colorimetric aptasensing of sulfadimethoxine with a smartphone. <i>Chinese Chemical Letters</i> , 2022, 33, 3078-3082.	4.8	12
2	Rapid disease diagnosis using low-cost paper and paper-hybrid microfluidic devices. , 2022, , 325-360.		4
3	Two-photon flow cytometry with laser scanning two-dimensional airy beams. <i>Optics Communications</i> , 2022, 508, 127804.	1.0	0
4	Immunotherapy discovery on tumor organoid-on-a-chip platforms that recapitulate the tumor microenvironment. <i>Advanced Drug Delivery Reviews</i> , 2022, 187, 114365.	6.6	30
5	Controlled drug delivery using microdevices. , 2021, , 205-223.		1
6	Microfluidic devices for stem cell analysis. , 2021, , 437-487.		0
7	Aptamer-functionalized metal-organic frameworks (MOFs) for biosensing. <i>Biosensors and Bioelectronics</i> , 2021, 176, 112947.	5.3	161
8	Multicolorimetric ELISA biosensors on a paper/polymer hybrid analytical device for visual point-of-care detection of infection diseases. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 4655-4663.	1.9	13
9	Detector-Free Photothermal Bar-Chart Microfluidic Chips (PT-Chips) for Visual Quantitative Detection of Biomarkers. <i>Analytical Chemistry</i> , 2021, 93, 7754-7762.	3.2	39
10	Analytical chemistry for infectious disease detection and prevention. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 4561-4562.	1.9	4
11	Paper-based microfluidic devices for low-cost assays. , 2021, , 551-585.		0
12	Microfluidic devices for cell manipulation. , 2021, , 329-389.		1
13	Recent innovations in cost-effective polymer and paper hybrid microfluidic devices. <i>Lab on A Chip</i> , 2021, 21, 2658-2683.	3.1	62
14	Integration and Quantitative Visualization of 3,3,5,5-Tetramethylbenzidine-Probed Enzyme-Linked Immunosorbent Assay-like Signals in a Photothermal Bar-Chart Microfluidic Chip for Multiplexed Immunosensing. <i>Analytical Chemistry</i> , 2021, 93, 15105-15114.	3.2	18
15	Resource utilization of waste deNOx catalyst for continuous-flow catalysis by supported metal reactors. <i>Molecular Catalysis</i> , 2020, 480, 110634.	1.0	7
16	A low-cost nanomaterial-based electrochemical immunosensor on paper for high-sensitivity early detection of pancreatic cancer. <i>Sensors and Actuators B: Chemical</i> , 2020, 305, 127516.	4.0	103
17	Novel porous ceramic sheet supported metal reactors for continuous-flow catalysis. <i>Catalysis Today</i> , 2020, 358, 324-332.	2.2	13
18	Multiplexed tri-mode visual outputs of immunoassay signals on a clip-magazine-assembled photothermal biosensing disk. <i>Biosensors and Bioelectronics</i> , 2020, 170, 112646.	5.3	19

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19	Low-Cost Quantitative Photothermal Genetic Detection of Pathogens on a Paper Hybrid Device Using a Thermometer. <i>Analytical Chemistry</i> , 2020, 92, 14830-14837.	3.2	53
20	A reusable PMMA/paper hybrid plug-and-play microfluidic device for an ultrasensitive immunoassay with a wide dynamic range. <i>Microsystems and Nanoengineering</i> , 2020, 6, 28.	3.4	38
21	Remotely tunable microfluidic platform driven by nanomaterial-mediated on-demand photothermal pumping. <i>Lab on A Chip</i> , 2020, 20, 2218-2227.	3.1	33
22	On-Demand Photothermal Bar-Chart Microfluidic Platform Using On-Chip Nanomaterial-Mediated Photothermal Effect as the Microfluidic Driving Force. , 2020, , .		1
23	A new method to amplify colorimetric signals of paper-based nanobiosensors for simple and sensitive pancreatic cancer biomarker detection. <i>Analyst, The</i> , 2020, 145, 5113-5117.	1.7	29
24	One-Step Surface Modification to Graft DNA Codes on Paper: The Method, Mechanism, and Its Application. <i>Analytical Chemistry</i> , 2020, 92, 7045-7053.	3.2	31
25	Smart paper transformer: new insight for enhanced catalytic efficiency and reusability of noble metal nanocatalysts. <i>Chemical Science</i> , 2020, 11, 2915-2925.	3.7	25
26	Gold Nanoparticle Aggregation-Induced Quantitative Photothermal Biosensing Using a Thermometer: A Simple and Universal Biosensing Platform. <i>Analytical Chemistry</i> , 2020, 92, 2739-2747.	3.2	126
27	Strong interaction between Au nanoparticles and porous polyurethane sponge enables efficient environmental catalysis with high reusability. <i>Catalysis Today</i> , 2020, 358, 246-253.	2.2	17
28	A smartphone-based on-site nucleic acid testing platform at point-of-care settings. <i>Electrophoresis</i> , 2019, 40, 914-921.	1.3	24
29	Bioactuators based on stimulus-responsive hydrogels and their emerging biomedical applications. <i>NPG Asia Materials</i> , 2019, 11, .	3.8	202
30	Spatiotemporally Controlled Multiplexed Photothermal Microfluidic Pumping under Monitoring of On-Chip Thermal Imaging. <i>ACS Sensors</i> , 2019, 4, 2481-2490.	4.0	18
31	Photothermal Microfluidic Sensing Platform Using Near-Infrared Laser-Driven Multiplexed Dual-Mode Visual Quantitative Readout. <i>Analytical Chemistry</i> , 2019, 91, 13290-13296.	3.2	43
32	Recent advances in microfluidic platforms for single-cell analysis in cancer biology, diagnosis and therapy. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 117, 13-26.	5.8	121
33	<i>Mycobacterium marinum</i> down-regulates miR-148a in macrophages in an EsxA-dependent manner. <i>International Immunopharmacology</i> , 2019, 73, 41-48.	1.7	12
34	A low-cost microfluidic platform for rapid and instrument-free detection of whooping cough. <i>Analytica Chimica Acta</i> , 2019, 1065, 71-78.	2.6	39
35	Rapid and Accurate Diagnosis of the Respiratory Disease Pertussis on a Point-of-Care Biochip. <i>EClinicalMedicine</i> , 2019, 8, 72-77.	3.2	51
36	A portable and universal upconversion nanoparticle-based lateral flow assay platform for point-of-care testing. <i>Talanta</i> , 2019, 201, 126-133.	2.9	104

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37	Preparation and evaluation of Bletilla striata polysaccharide/graphene oxide composite hemostatic sponge. International Journal of Biological Macromolecules, 2019, 130, 827-835.	3.6	55
38	Novel TiO ₂ catalyst carriers with high thermostability for selective catalytic reduction of NO by NH ₃ . Catalysis Today, 2019, 327, 279-287.	2.2	38
39	Exploration of Nanoparticle-Mediated Photothermal Effect of TMB-H ₂ O ₂ Colorimetric System and Its Application in a Visual Quantitative Photothermal Immunoassay. Analytical Chemistry, 2018, 90, 5930-5937.	3.2	201
40	Recent advances of controlled drug delivery using microfluidic platforms. Advanced Drug Delivery Reviews, 2018, 128, 3-28.	6.6	241
41	Atomically Precise Au ₂₅ (SG) ₁₈ Nanoclusters: Rapid Single-Step Synthesis and Application in Photothermal Therapy. ACS Applied Materials & Interfaces, 2018, 10, 75-82.	4.0	75
42	Multiplexed Instrument-Free Bar-Chart SpinChip Integrated with Nanoparticle-Mediated Magnetic Aptasensors for Visual Quantitative Detection of Multiple Pathogens. Analytical Chemistry, 2018, 90, 9888-9896.	3.2	101
43	Stem cell culture and differentiation in microfluidic devices toward organ-on-a-chip. Future Science OA, 2017, 3, FSO187.	0.9	97
44	Paper-based device with on-chip reagent storage for rapid extraction of DNA from biological samples. Mikrochimica Acta, 2017, 184, 2141-2150.	2.5	45
45	Study of flow behaviors of droplet merging and splitting in microchannels using Micro-PIV measurement. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	33
46	A paper/polymer hybrid CD-like microfluidic SpinChip integrated with DNA-functionalized graphene oxide nanosensors for multiplex qLAMP detection. Chemical Communications, 2017, 53, 10886-10889.	2.2	64
47	Capillary blood for point-of-care testing. Critical Reviews in Clinical Laboratory Sciences, 2017, 54, 294-308.	2.7	39
48	Improved Analytical Sensitivity of Lateral Flow Assay using Sponge for HBV Nucleic Acid Detection. Scientific Reports, 2017, 7, 1360.	1.6	73
49	Efficient NH ₃ -SCR removal of NO _x with highly ordered mesoporous WO ₃ (H)-CeO ₂ at low temperatures. Applied Catalysis B: Environmental, 2017, 203, 199-209.	10.8	249
50	Multiplexed instrument-free meningitis diagnosis on a polymer/paper hybrid microfluidic biochip. Biosensors and Bioelectronics, 2017, 87, 865-873.	5.3	110
51	In vitrosatially organizing the differentiation in individual multicellular stem cell aggregates. Critical Reviews in Biotechnology, 2016, 36, 20-31.	5.1	24
52	Editorial (Thematic Issue: Special Issue for Current Pharmaceutical Biotechnology Miniaturized) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 14 753-754.	0.9	4
53	EsxA membrane-permeabilizing activity plays a key role in mycobacterial cytosolic translocation and virulence: effects of single-residue mutations at glutamine 5. Scientific Reports, 2016, 6, 32618.	1.6	44
54	Cost-effective and sensitive colorimetric immunosensing using an iron oxide-to-Prussian blue nanoparticle conversion strategy. Analyst, The, 2016, 141, 3883-3889.	1.7	48

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55	A fully battery-powered inexpensive spectrophotometric system for high-sensitivity point-of-care analysis on a microfluidic chip. <i>Analyst, The</i> , 2016, 141, 3898-3903.	1.7	20
56	A paper/polymer hybrid microfluidic microplate for rapid quantitative detection of multiple disease biomarkers. <i>Scientific Reports</i> , 2016, 6, 30474.	1.6	110
57	Interfacial nano-biosensing in microfluidic droplets for high-sensitivity detection of low-solubility molecules. <i>Chemical Communications</i> , 2016, 52, 3470-3473.	2.2	47
58	Nanoparticle-mediated photothermal effect enables a new method for quantitative biochemical analysis using a thermometer. <i>Nanoscale</i> , 2016, 8, 5422-5427.	2.8	123
59	An integrated paper-based sample-to-answer biosensor for nucleic acid testing at the point of care. <i>Lab on A Chip</i> , 2016, 16, 611-621.	3.1	247
60	Controlled Drug Delivery Using Microdevices. <i>Current Pharmaceutical Biotechnology</i> , 2016, 17, 772-787.	0.9	39
61	Biomarker detection for disease diagnosis using cost-effective microfluidic platforms. <i>Analyst, The</i> , 2015, 140, 7062-7081.	1.7	208
62	Low-cost bioanalysis on paper-based and its hybrid microfluidic platforms. <i>Talanta</i> , 2015, 145, 43-54.	2.9	121
63	Advances in Smartphone-Based Point-of-Care Diagnostics. <i>Proceedings of the IEEE</i> , 2015, 103, 236-247.	16.4	169
64	Study of flow behaviors on single-cell manipulation and shear stress reduction in microfluidic chips using computational fluid dynamics simulations. <i>Biomicrofluidics</i> , 2014, 8, 014109.	1.2	70
65	A Versatile PDMS/Paper Hybrid Microfluidic Platform for Sensitive Infectious Disease Diagnosis. <i>Analytical Chemistry</i> , 2014, 86, 7978-7986.	3.2	181
66	A PDMS/paper/glass hybrid microfluidic biochip integrated with aptamer-functionalized graphene oxide nano-biosensors for one-step multiplexed pathogen detection. <i>Lab on A Chip</i> , 2013, 13, 3921.	3.1	258
67	Microfluidic devices for biomedical applications. , 2013, , .		35
68	Microfluidic 3D cell culture: potential application for tissue-based bioassays. <i>Bioanalysis</i> , 2012, 4, 1509-1525.	0.6	268
69	A simple and fast microfluidic approach of same-single-cell analysis (SASCA) for the study of multidrug resistance modulation in cancer cells. <i>Lab on A Chip</i> , 2011, 11, 1378.	3.1	75
70	Paper-based piezoresistive MEMS sensors. <i>Lab on A Chip</i> , 2011, 11, 2189.	3.1	212
71	Integrated DNA purification, PCR, sample cleanup, and capillary electrophoresis microchip for forensic human identification. <i>Lab on A Chip</i> , 2011, 11, 1041.	3.1	157
72	Strategies for the real-time detection of Ca ²⁺ channel events of single cells: recent advances and new possibilities. <i>Expert Review of Clinical Pharmacology</i> , 2010, 3, 267-280.	1.3	10

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73	A rotating microfluidic array chip for staining assays. <i>Talanta</i> , 2010, 81, 1203-1208.	2.9	25
74	Real-time detection of the early event of cytotoxicity of herbal ingredients on single leukemia cells studied in a microfluidic biochip. <i>Integrative Biology (United Kingdom)</i> , 2009, 1, 90-98.	0.6	33
75	Same-Single-Cell Analysis for the Study of Drug Efflux Modulation of Multidrug Resistant Cells Using a Microfluidic Chip. <i>Analytical Chemistry</i> , 2008, 80, 4095-4102.	3.2	72
76	Real-time monitoring of intracellular calcium dynamic mobilization of a single cardiomyocyte in a microfluidic chip pertaining to drug discovery. <i>Electrophoresis</i> , 2007, 28, 4723-4733.	1.3	49
77	Contraction Study of a Single Cardiac Muscle Cell in a Microfluidic Chip. , 2006, 321, 199-226.		9
78	Microfluidic Selection and Retention of a Single Cardiac Myocyte, On-Chip Dye Loading, Cell Contraction by Chemical Stimulation, and Quantitative Fluorescent Analysis of Intracellular Calcium. <i>Analytical Chemistry</i> , 2005, 77, 4315-4322.	3.2	78
79	Microfluidic Lab-on-a-Chip. , 2004, , 581-679.		3
80	Simultaneous Determination of Tryptophan and Glutathione in Individual Rat Hepatocytes by Capillary Zone Electrophoresis with Electrochemical Detection at a Carbon Fiber Bundle Au/Hg Dual Electrode. <i>Analytical Chemistry</i> , 2003, 75, 3859-3864.	3.2	64
81	Separation and determination of homovanillic acid and vanillylmandelic acid by capillary electrophoresis with electrochemical detection. <i>Analytica Chimica Acta</i> , 2002, 461, 123-130.	2.6	34