List of Publications by Year in descending order

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Ιρμα Chacã3n

#	Article	IF	CITATIONS
1	Microfluidic 3D cell culture: potential application for tissue-based bioassays. Bioanalysis, 2012, 4, 1509-1525.	1.5	268
2	A PDMS/paper/glass hybrid microfluidic biochip integrated with aptamer-functionalized graphene oxide nano-biosensors for one-step multiplexed pathogen detection. Lab on A Chip, 2013, 13, 3921.	6.0	258
3	Efficient NH3-SCR removal of NOx with highly ordered mesoporous WO3(χ)-CeO2 at low temperatures. Applied Catalysis B: Environmental, 2017, 203, 199-209.	20.2	249
4	An integrated paper-based sample-to-answer biosensor for nucleic acid testing at the point of care. Lab on A Chip, 2016, 16, 611-621.	6.0	247
5	Recent advances of controlled drug delivery using microfluidic platforms. Advanced Drug Delivery Reviews, 2018, 128, 3-28.	13.7	241
6	Paper-based piezoresistive MEMS sensors. Lab on A Chip, 2011, 11, 2189.	6.0	212
7	Biomarker detection for disease diagnosis using cost-effective microfluidic platforms. Analyst, The, 2015, 140, 7062-7081.	3.5	208
8	Bioactuators based on stimulus-responsive hydrogels and their emerging biomedical applications. NPG Asia Materials, 2019, 11, .	7.9	202
9	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.	6.5	201
10	A Versatile PDMS/Paper Hybrid Microfluidic Platform for Sensitive Infectious Disease Diagnosis. Analytical Chemistry, 2014, 86, 7978-7986.	6.5	181
11	Advances in Smartphone-Based Point-of-Care Diagnostics. Proceedings of the IEEE, 2015, 103, 236-247.	21.3	169
12	Aptamer-functionalized metal-organic frameworks (MOFs) for biosensing. Biosensors and Bioelectronics, 2021, 176, 112947.	10.1	161
13	Integrated DNA purification, PCR, sample cleanup, and capillary electrophoresis microchip for	6.0	157
14	Gold Nanoparticle Aggregation-Induced Quantitative Photothermal Biosensing Using a Thermometer: A Simple and Universal Biosensing Platform. Analytical Chemistry, 2020, 92, 2739-2747.	6.5	126
15	Nanoparticle-mediated photothermal effect enables a new method for quantitative biochemical analysis using a thermometer. Nanoscale, 2016, 8, 5422-5427.	5.6	123
16	Low-cost bioanalysis on paper-based and its hybrid microfluidic platforms. Talanta, 2015, 145, 43-54.	5.5	121
17	Recent advances in microfluidic platforms for single-cell analysis in cancer biology, diagnosis and therapy. TrAC - Trends in Analytical Chemistry, 2019, 117, 13-26.	11.4	121
18	A paper/polymer hybrid microfluidic microplate for rapid quantitative detection of multiple disease biomarkers. Scientific Reports, 2016, 6, 30474.	3.3	110

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19	Multiplexed instrument-free meningitis diagnosis on a polymer/paper hybrid microfluidic biochip. Biosensors and Bioelectronics, 2017, 87, 865-873.	10.1	110
20	A portable and universal upconversion nanoparticle-based lateral flow assay platform for point-of-care testing. Talanta, 2019, 201, 126-133.	5.5	104
21	A low-cost nanomaterial-based electrochemical immunosensor on paper for high-sensitivity early detection of pancreatic cancer. Sensors and Actuators B: Chemical, 2020, 305, 127516.	7.8	103
22	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.	6.5	101
23	Stem cell culture and differentiation in microfluidic devices toward organ-on-a-chip. Future Science OA, 2017, 3, FSO187.	1.9	97
24	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. Analytical Chemistry, 2005, 77, 4315-4322.	6.5	78
25	A simple and fast microfluidic approach of same-single-cell analysis (SASCA) for the study of multidrug resistance modulation in cancer cells. Lab on A Chip, 2011, 11, 1378.	6.0	75
26	Atomically Precise Au ₂₅ (SG) ₁₈ Nanoclusters: Rapid Single-Step Synthesis and Application in Photothermal Therapy. ACS Applied Materials & Interfaces, 2018, 10, 75-82.	8.0	75
27	Improved Analytical Sensitivity of Lateral Flow Assay using Sponge for HBV Nucleic Acid Detection. Scientific Reports, 2017, 7, 1360.	3.3	73
28	Same-Single-Cell Analysis for the Study of Drug Efflux Modulation of Multidrug Resistant Cells Using a Microfluidic Chip. Analytical Chemistry, 2008, 80, 4095-4102.	6.5	72
29	Study of flow behaviors on single-cell manipulation and shear stress reduction in microfluidic chips using computational fluid dynamics simulations. Biomicrofluidics, 2014, 8, 014109.	2.4	70
30	Simultaneous Determination of Tryptophan and Glutathione in Individual Rat Hepatocytes by Capillary Zone Electrophoresis with Electrochemical Detection at a Carbon Fiber Bundleâ^Au/Hg Dual Electrode. Analytical Chemistry, 2003, 75, 3859-3864.	6.5	64
31	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.	4.1	64
32	Recent innovations in cost-effective polymer and paper hybrid microfluidic devices. Lab on A Chip, 2021, 21, 2658-2683.	6.0	62
33	Preparation and evaluation of Bletilla striata polysaccharide/graphene oxide composite hemostatic sponge. International Journal of Biological Macromolecules, 2019, 130, 827-835.	7.5	55
34	Low-Cost Quantitative Photothermal Genetic Detection of Pathogens on a Paper Hybrid Device Using a Thermometer. Analytical Chemistry, 2020, 92, 14830-14837.	6.5	53
35	Rapid and Accurate Diagnosis of the Respiratory Disease Pertussis on a Point-of-Care Biochip. EClinicalMedicine, 2019, 8, 72-77.	7.1	51
36	Realâ€time monitoring of intracellular calcium dynamic mobilization of a single cardiomyocyte in a microfluidic chip pertaining to drug discovery. Electrophoresis, 2007, 28, 4723-4733.	2.4	49

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37	Cost-effective and sensitive colorimetric immunosensing using an iron oxide-to-Prussian blue nanoparticle conversion strategy. Analyst, The, 2016, 141, 3883-3889.	3.5	48
38	Interfacial nano-biosensing in microfluidic droplets for high-sensitivity detection of low-solubility molecules. Chemical Communications, 2016, 52, 3470-3473.	4.1	47
39	Paper-based device with on-chip reagent storage for rapid extraction of DNA from biological samples. Mikrochimica Acta, 2017, 184, 2141-2150.	5.0	45
40	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.	3.3	44
41	Photothermal Microfluidic Sensing Platform Using Near-Infrared Laser-Driven Multiplexed Dual-Mode Visual Quantitative Readout. Analytical Chemistry, 2019, 91, 13290-13296.	6.5	43
42	Capillary blood for point-of-care testing. Critical Reviews in Clinical Laboratory Sciences, 2017, 54, 294-308.	6.1	39
43	A low-cost microfluidic platform for rapid and instrument-free detection of whooping cough. Analytica Chimica Acta, 2019, 1065, 71-78.	5.4	39
44	Detector-Free Photothermal Bar-Chart Microfluidic Chips (PT-Chips) for Visual Quantitative Detection of Biomarkers. Analytical Chemistry, 2021, 93, 7754-7762.	6.5	39
45	Controlled Drug Delivery Using Microdevices. Current Pharmaceutical Biotechnology, 2016, 17, 772-787.	1.6	39
46	Novel TiO2 catalyst carriers with high thermostability for selective catalytic reduction of NO by NH3. Catalysis Today, 2019, 327, 279-287.	4.4	38
47	A reusable PMMA/paper hybrid plug-and-play microfluidic device for an ultrasensitive immunoassay with a wide dynamic range. Microsystems and Nanoengineering, 2020, 6, 28.	7.0	38
48	Microfluidic devices for biomedical applications. , 2013, , .		35
49	Separation and determination of homovanillic acid and vanillylmandelic acid by capillary electrophoresis with electrochemical detection. Analytica Chimica Acta, 2002, 461, 123-130.	5.4	34
50	Real-time detection of the early event of cytotoxicity of herbal ingredients on single leukemia cells studied in a microfluidic biochip. Integrative Biology (United Kingdom), 2009, 1, 90-98.	1.3	33
51	Study of flow behaviors of droplet merging and splitting in microchannels using Micro-PIV measurement. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	33
52	Remotely tunable microfluidic platform driven by nanomaterial-mediated on-demand photothermal pumping. Lab on A Chip, 2020, 20, 2218-2227.	6.0	33
53	One-Step Surface Modification to Graft DNA Codes on Paper: The Method, Mechanism, and Its Application. Analytical Chemistry, 2020, 92, 7045-7053.	6.5	31
54	Immunotherapy discovery on tumor organoid-on-a-chip platforms that recapitulate the tumor microenvironment. Advanced Drug Delivery Reviews, 2022, 187, 114365.	13.7	30

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55	A new method to amplify colorimetric signals of paper-based nanobiosensors for simple and sensitive pancreatic cancer biomarker detection. Analyst, The, 2020, 145, 5113-5117.	3.5	29
56	A rotating microfluidic array chip for staining assays. Talanta, 2010, 81, 1203-1208.	5.5	25
57	Smart paper transformer: new insight for enhanced catalytic efficiency and reusability of noble metal nanocatalysts. Chemical Science, 2020, 11, 2915-2925.	7.4	25
58	In vitrospatially organizing the differentiation in individual multicellular stem cell aggregates. Critical Reviews in Biotechnology, 2016, 36, 20-31.	9.0	24
59	A smartphoneâ€based onâ€site nucleic acid testing platform at pointâ€of are settings. Electrophoresis, 2019, 40, 914-921.	2.4	24
60	A fully battery-powered inexpensive spectrophotometric system for high-sensitivity point-of-care analysis on a microfluidic chip. Analyst, The, 2016, 141, 3898-3903.	3.5	20
61	Multiplexed tri-mode visual outputs of immunoassay signals on a clip-magazine-assembled photothermal biosensing disk. Biosensors and Bioelectronics, 2020, 170, 112646.	10.1	19
62	Spatiotemporally Controlled Multiplexed Photothermal Microfluidic Pumping under Monitoring of On-Chip Thermal Imaging. ACS Sensors, 2019, 4, 2481-2490.	7.8	18
63	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. Analytical Chemistry, 2021, 93, 15105-15114.	6.5	18
64	Strong interaction between Au nanoparticles and porous polyurethane sponge enables efficient environmental catalysis with high reusability. Catalysis Today, 2020, 358, 246-253.	4.4	17
65	Novel porous ceramic sheet supported metal reactors for continuous-flow catalysis. Catalysis Today, 2020, 358, 324-332.	4.4	13
66	Multicolorimetric ELISA biosensors on a paper/polymer hybrid analytical device for visual point-of-care detection of infection diseases. Analytical and Bioanalytical Chemistry, 2021, 413, 4655-4663.	3.7	13
67	Mycobacterium marinum down-regulates miR-148a in macrophages in an EsxA-dependent manner. International Immunopharmacology, 2019, 73, 41-48.	3.8	12
68	AuNP aggregation-induced quantitative colorimetric aptasensing of sulfadimethoxine with a smartphone. Chinese Chemical Letters, 2022, 33, 3078-3082.	9.0	12
69	Strategies for the real-time detection of Ca ²⁺ channel events of single cells: recent advances and new possibilities. Expert Review of Clinical Pharmacology, 2010, 3, 267-280.	3.1	10
70	Contraction Study of a Single Cardiac Muscle Cell in a Microfluidic Chip. , 2006, 321, 199-226.		9
71	Resource utilization of waste deNOx catalyst for continuous-flow catalysis by supported metal reactors. Molecular Catalysis, 2020, 480, 110634.	2.0	7
72	Editorial (Thematic Issue: Special Issue for Current Pharmaceutical Biotechnology Miniaturized) Tj ETQq0 0 0 rgBT	/Overlock 1.6	10 Tf 50 67 4

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73	Analytical chemistry for infectious disease detection and prevention. Analytical and Bioanalytical Chemistry, 2021, 413, 4561-4562.	3.7	4
74	Rapid disease diagnosis using low-cost paper and paper-hybrid microfluidic devices. , 2022, , 325-360.		4
75	Microfluidic Lab-on-a-Chip. , 2004, , 581-679.		3
76	On-Demand Photothermal Bar-Chart Microfluidic Platform Using On-Chip Nanomaterial-Mediated Photothermal Effect as the Microfluidic Driving Force. , 2020, , .		1
77	Controlled drug delivery using microdevices. , 2021, , 205-223.		1
78	Microfluidic devices for cell manipulation. , 2021, , 329-389.		1
79	Microfluidic devices for stem cell analysis. , 2021, , 437-487.		0
80	Paper-based microfluidic devices for low-cost assays. , 2021, , 551-585.		0
81	Two-photon flow cytometry with laser scanning two-dimensional airy beams. Optics Communications, 2022, 508, 127804.	2.1	0