Carlotta Guiducci

List of Publications by Year
in descending order

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Version: 2024-02-01

44	1,301	361413	377865
papers	citations	20 h-index	34 g-index

47	47	47	1774
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CMOS DNA Sensor Array With Integrated A/D Conversion Based on Label-Free Capacitance Measurement. IEEE Journal of Solid-State Circuits, 2006, 41, 2956-2964.	5.4	161
2	Overview of Electrochemical DNA Biosensors: New Approaches to Detect the Expression of Life. Sensors, 2009, 9, 3122-3148.	3.8	119
3	Label-Free Detection of Tobramycin in Serum by Transmission-Localized Surface Plasmon Resonance. Analytical Chemistry, 2015, 87, 5278-5285.	6.5	115
4	DNA detection by integrable electronics. Biosensors and Bioelectronics, 2004, 19, 781-787.	10.1	95
5	A Fully Electronic Label-Free DNA Sensor Chip. IEEE Sensors Journal, 2007, 7, 577-585.	4.7	92
6	More DNAâ€“Aptamers for Small Drugs: A Captureâ€“SELEX Coupled with Surface Plasmon Resonance and High-Throughput Sequencing. ACS Combinatorial Science, 2015, 17, 326-333.	3.8	82
7	Wireless sensor networks: Enabling technology for ambient intelligence. Microelectronics Journal, 2006, 37, 1639-1649.	2.0	76
8	Characterization of effective mobility by split C(V) technique in N-MOSFETs with ultra-thin gate oxides. Solid-State Electronics, 2003, 47, 1147-1153.	1.4	41
9	Microelectrodes on a Silicon Chip for Label-Free Capacitive DNA Sensing. IEEE Sensors Journal, 2006, 6, 1084-1093.	4.7	41
10	Label-free identification of activated T lymphocytes through tridimensional microsensors on chip. Biosensors and Bioelectronics, 2017, 94, 193-199.	10.1	36
11	Semiconductor oxide based electrodes for the label-free electrical detection of DNA hybridization: Comparison between Sb doped SnO2 and CdIn2O4. Electrochimica Acta, 2006, 51, 5206-5214.	5.2	31
12	A comparative study on fabrication techniques for on-chip microelectrodes. Lab on A Chip, 2012, 12, 4920.	6.0	31
13	Development and functionalisation of Sb doped SnO2 thin films for DNA biochip applications. Sensors and Actuators B: Chemical, 2006, 113, 1025-1033.	7.8	29
14	Onâ€chip technology for singleâ€cell arraying, electrorotationâ€based analysis and selective release. Electrophoresis, 2019, 40, 1830-1838.	2.4	29
15	Hybridization chain reaction performed on a metal surface as a means of signal amplification in SPR and electrochemical biosensors. Biosensors and Bioelectronics, 2014, 54, 102-108.	10.1	26
16	Metal-Coated SU-8 Structures for High-Density 3-D Microelectrode Arrays. Journal of Microelectromechanical Systems, 2016, 25, 425-431.	2.5	24
17	Metallic oxide CdIn2O4 films for the label free electrochemical detection of DNA hybridization. Biosensors and Bioelectronics, 2006, 22, 178-184.	10.1	22
18	Metal-coated silicon micropillars for freestanding 3D-electrode arrays in microchannels. Sensors and Actuators B: Chemical, 2013, 185, 713-719.	7.8	22

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19	Comparison against current standards of a DNA aptamer for the label-free quantification of tobramycin in human sera employed for therapeutic drug monitoring. Journal of Pharmaceutical and Biomedical Analysis, 2018, 159, 341-347.	2.8	22
20	Overview of Micro- and Nano-Technology Tools for Stem Cell Applications: Micropatterned and Microelectronic Devices. Sensors, 2012, 12, 15947-15982.	3.8	21
21	Multi-Wire Tri-Gate Silicon Nanowires Reaching Milli-pH Unit Resolution in One Micron Square Footprint. Biosensors, 2016, 6, 9.	4.7	20
22	A 0.18 <formula formulatype="inline"><tex Notation="TeX">$mu {m m}$</tex></formula> Biosensor Front-End Based on <formula formulatype="inline"><tex Notation="TeX">$1/f$</tex></formula> Noise, Distortion Cancelation and Chopper Stabilization Techniques. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 660-673.	4.0	19
23	Active Posts in Deterministic Lateral Displacement Devices. Advanced Materials Technologies, 2019, 4, 1900339.	5.8	19
24	Electronic Detection of DNA Hybridization: Toward CMOS Microarrays. IEEE Design and Test of Computers, 2007, 24, 38-48.	1.0	14
25	Peak shift measurement of localized surface plasmon resonance by a portable electronic system. Sensors and Actuators B: Chemical, 2013, 176, 225-231.	7.8	13
26	Another transistor-based revolution: on-chip qPCR. Nature Methods, 2013, 10, 617-618.	19.0	12
27	Isothermal multiple displacement amplification of DNA templates in minimally buffered conditions using phi29 polymerase. Chemical Communications, 2018, 54, 2158-2161.	4.1	12
28	Selective Retrieval of Individual Cells from Microfluidic Arrays Combining Dielectrophoretic Force and Directed Hydrodynamic Flow. Micromachines, 2020, 11, 322.	2.9	11
29	Recombinase polymerase amplification in minimally buffered conditions. Biosensors and Bioelectronics, 2022, 198, 113802.	10.1	11
30	Post-CMOS Processing and 3-D Integration Based on Dry-Film Lithography. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 1458-1466.	2.5	10
31	Novel front-end circuit architectures for integrated bio-electronic interfaces. , 2008, , .		8
32	A CMOS-compatible chip-to-chip 3D integration platform. , 2012, , .		7
33	Robust microelectrodes developed for improved stability in electrochemical characterization of biomolecular layers. , 2010, , .		6
34	High parallelism, portability, and broad accessibility. ACM Journal on Emerging Technologies in Computing Systems, 2008, 4, 1-39.	2.3	4
35	Detecting particles flowing through interdigitated 3D microelectrodes. , 2012, 2012, 5002-5.		4
36	Rapid Multianalyte Microfluidic Homogeneous Immunoassay on Electrokinetically Driven Beads. Biosensors, 2020, 10, 212.	4.7	4

#	Article	IF	Citations
37	Real-time high-sensitivity impedance measurement interface for tethered BLM biosensor arrays. , 2008, , .		3
38	Analysis of dielectric microbead detection by impedance spectroscopy with nanoribbons. , 2016, , .		3
39	Integration of Ultra-Low Volume Pneumatic Microfluidics with a Three-Dimensional Electrode Network for On-Chip Biochemical Sensing. Micromachines, 2021, 12, 762.	2.9	1
40	A Portable Setup for Molecular Detection by Transmission LSPR. Materials Research Society Symposia Proceedings, 2012, 1479, 27-32.	0.1	0
41	Integrated electrical sensing for high-throughput bioanalytics. , 2017, , .		0
42	Selection of Structure-Switching DNA Aptamers Binding Soluble Small Molecules and SPR Validation of Enrichment. Methods in Molecular Biology, 2018, 1811, 183-197.	0.9	0
43	Microfluidics: Active Posts in Deterministic Lateral Displacement Devices (Adv. Mater. Technol. 9/2019). Advanced Materials Technologies, 2019, 4, 1970048.	5.8	0
44	FULLY ELECTRONIC DNA DETECTION TECHNIQUE. , 2005, , .		0