CÃ©sar FernÃ¡ndez SÃ¡nchez

List of Publications by Year
in descending order

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104 papers	2,839 citations	117625 34 h-index	197818 49 g-index
108 all docs	108 docs citations	108 times ranked	4040 citing authors

#	Article	IF	Citations
1	Array of individually addressable two-electrode electrochemical cells sharing a single counter/reference electrode for multiplexed enzyme activity measurements. Biosensors and Bioelectronics, 2022, 201, 113952.	10.1	7
2	Compact Microfluidic Platform with LED Light-Actuated Valves for Enzyme-Linked Immunosorbent Assay Automation. Biosensors, 2022, 12, 280.	4.7	0
3	Composites of porous carbon and copper-based nanoparticles for the electrochemical analysis of chemical oxygen demand. Materials Today Chemistry, 2022, 24, 100899.	3.5	3
4	In-field one-step measurement of dissolved chemical oxygen demand with an integrated screen-printed electrochemical sensor. Sensors and Actuators B: Chemical, 2022, 369, 132304.	7.8	9
5	Compact fluidic electrochemical sensor platform for on-line monitoring of chemical oxygen demand in urban wastewater. Chemical Engineering Journal, 2022, 449, 137837.	12.7	9
6	Multisensing Wearable Technology for Sweat Biomonitoring. Engineering Proceedings, 2021, 6, .	0.4	1
7	Hybrid Technologies Combining Solid-State Sensors and Paper/Fabric Fluidics for Wearable Analytical Devices. Biosensors, 2021, 11, 303.	4.7	4
8	Bio and soft-imprinting lithography on bacterial cellulose films. Materials Today Chemistry, 2021, 21, 100535.	3.5	1
9	Compact analytical flow system for the simultaneous determination of l-lactic and l-malic in red wines. Scientific Reports, 2020, 10, 19404.	3.3	4
10	New fabrication method for producing reduced graphene oxide flexible electrodes by using a low-power visible laser diode engraving system. Nanotechnology, 2020, 31, 325402.	2.6	7
11	Electrochemical Paper-Based Biosensor Devices for Rapid Detection of Biomarkers. Sensors, 2020, 20, 967.	3.8	55
12	Activation of two-dimensional MoS2 nanosheets by wet-chemical sulfur vacancy engineering for the catalytic reduction of nitroarenes and organic dyes. Applied Materials Today, 2020, 20, 100678.	4.3	15
13	Automated Determination of As(III) in Waters with an Electrochemical Sensor Integrated into a Modular Microfluidic System. ACS Sensors, 2019, 4, 3156-3165.	7.8	21
14	Decentralized analysis of water contaminants using compact (bio)electroanalytical tools. Current Opinion in Environmental Science and Health, 2019, 10, 47-56.	4.1	8
15	Microfluidic Modules with Integrated Solid-State Sensors for Reconfigurable Miniaturized Analysis Systems. ACS Omega, 2019, 4, 6192-6198.	3.5	13
16	Miniature Gigahertz Acoustic Resonator and On-Chip Electrochemical Sensor: An Emerging Combination for Electroanalytical Microsystems. Analytical Chemistry, 2019, 91, 15959-15966.	6.5	8
17	Metal Nanoparticle Carbon Gel Composites in Environmental Water Sensing Applications. Chemical Record, 2018, 18, 749-758.	5.8	4
18	Compact sampling device based on wax microfluidics. Sensors and Actuators B: Chemical, 2017, 251, 93-98.	7.8	5

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19	Aqueous Exfoliation of Transition Metal Dichalcogenides Assisted by DNA/RNA Nucleotides: Catalytically Active and Biocompatible Nanosheets Stabilized by Acidâ€“Base Interactions. ACS Applied Materials & Interfaces, 2017, 9, 2835-2845.	8.0	33
20	Robust l-malate bienzymatic biosensor to enable the on-site monitoring of malolactic fermentation of red wines. Analytica Chimica Acta, 2017, 954, 105-113.	5.4	17
21	Carbonâ€“Silica Composites to Produce Highly Robust Thinâ€Film Electrochemical Microdevices. Advanced Materials Technologies, 2017, 2, 1700163.	5.8	8
22	Miniaturized Flow-System Integrating Enzymatic Electrochemical Biosensors for Monitoring the Malolactic Fermentation of Red Wines. Proceedings (mdpi), 2017, 1, 787.	0.2	2
23	Wax microfluidics light-addressable valve with multiple actuation. Proceedings of SPIE, 2017, , .	0.8	0
24	Multiple actuation microvalves in wax microfluidics. Lab on A Chip, 2016, 16, 3969-3976.	6.0	12
25	Self-validating lab-on-a-chip for monitoring enzyme-catalyzed biological reactions. Sensors and Actuators B: Chemical, 2016, 237, 16-23.	7.8	19
26	Electrochemically Active Thin Carbon Films with Enhanced Adhesion to Silicon Substrates. ACS Applied Materials & Interfaces, 2016, 8, 31092-31099.	8.0	6
27	Screen-printed electrodes made of a bismuth nanoparticle porous carbon nanocomposite applied to the determination of heavy metalÂions. Mikrochimica Acta, 2016, 183, 617-623.	5.0	83
28	Monitoring of malolactic fermentation in wine using an electrochemical bienzymatic biosensor for l-lactate with long term stability. Analytica Chimica Acta, 2016, 905, 126-133.	5.4	40
29	Impedance spectral fingerprint of E. coli cells on interdigitated electrodes: A new approach for label free and selective detection. Sensing and Bio-Sensing Research, 2016, 7, 100-106.	4.2	24
30	Gold interdigitated nanoelectrodes as a sensitive analytical tool for selective detection of electroactive species via redox cycling. Mikrochimica Acta, 2016, 183, 1633-1639.	5.0	19
31	Electrochemical devices for the detection of priority pollutants listed in the EU water framework directive. TrAC - Trends in Analytical Chemistry, 2016, 77, 186-202.	11.4	44
32	Electrochemical Nanocomposite-Derived Sensor for the Analysis of Chemical Oxygen Demand in Urban Wastewaters. Analytical Chemistry, 2015, 87, 2152-2160.	6.5	51
33	Synthesis of solâ€“gel SiO2-based materials using alkoxydisilane precursors: mechanisms and luminescence studies. Journal of Sol-Gel Science and Technology, 2015, 73, 417-427.	2.4	4
34	Electroanalytical Assessment of Heavy Metals in Waters with Bismuth Nanoparticle-Porous Carbon Paste Electrodes. Electrochimica Acta, 2015, 165, 155-161.	5.2	85
35	Biofunctionalized all-polymer photonic lab on a chip with integrated solid-state light emitter. Light: Science and Applications, 2015, 4, e271-e271.	16.6	27
36	Achieving Extremely Concentrated Aqueous Dispersions of Graphene Flakes and Catalytically Efficient Graphene-Metal Nanoparticle Hybrids with Flavin Mononucleotide as a High-Performance Stabilizer. ACS Applied Materials & Interfaces, 2015, 7, 10293-10307.	8.0	101

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37	A microfluidic device for the automated electrical readout of low-density glass-slide microarrays. Biosensors and Bioelectronics, 2015, 74, 698-704.	10.1	15
38	Gold cluster based electrocatalytic sensors for the detection of formaldehyde. Analytical Methods, 2015, 7, 538-542.	2.7	23
39	Stripping voltammetric detection of trace heavy metals using gold ultramicroelectrode arrays. , 2014, , .		0
40	Compact Electrochemical Flow System for the Analysis of Environmental Pollutants. Electroanalysis, 2014, 26, 497-506.	2.9	11
41	Reusable conductimetric array of interdigitated microelectrodes for the readout of low-density microarrays. Analytica Chimica Acta, 2014, 832, 44-50.	5.4	3
42	Diagnostics Using Multiplexed Electrochemical Readout Devices. Electroanalysis, 2014, 26, 1154-1170.	2.9	22
43	Thin-film electrochemical sensor for diphenylamine detection using molecularly imprinted polymers. Analytica Chimica Acta, 2014, 809, 141-147.	5.4	60
44	Highly efficient silver-assisted reduction of graphene oxide dispersions at room temperature: mechanism, and catalytic and electrochemical performance of the resulting hybrids. Journal of Materials Chemistry A, 2014, 2, 7295-7305.	10.3	29
45	PDMS based photonic lab-on-a-chip for the selective optical detection of heavy metal ions. Analyst, The, 2013, 138, 839-844.	3.5	25
46	Facile synthesis of porous bismuthâ€“carbon nanocomposites for the sensitive detection of heavy metals. Journal of Materials Chemistry A, 2013, 1, 11410.	10.3	64
47	Improving immunosensor performance through oriented immobilization of antibodies on carbon nanotube composite surfaces. Biosensors and Bioelectronics, 2013, 43, 274-280.	10.1	48
48	Biomimetic Architectures for the Impedimetric Discrimination of Influenza Virus Phenotypes. Advanced Functional Materials, 2013, 23, 254-262.	14.9	27
49	Conductimetric transducer array for the readout of low-density protein microarrays. , 2013, , .		0
50	Development and integration of xerogel polymeric absorbance micro-filters into lab-on-chip systems. Optics Express, 2012, 20, 23700.	3.4	10
51	Integration of microelectronic chips in microfluidic systems on printed circuit board. Journal of Micromechanics and Microengineering, 2012, 22, 105022.	2.6	35
52	One-Step Patterning of Hybrid Xerogel Materials for the Fabrication of Disposable Solid-State Light Emitters. ACS Applied Materials & Interfaces, 2012, 4, 5029-5037.	8.0	9
53	Bulk silica-based luminescent materials by sol-gel processing of non-conventional precursors. Applied Physics Letters, 2012, 101, 171908.	3.3	3
54	Dual Photonic-Electrochemical Lab on a Chip for Online Simultaneous Absorbance and Amperometric Measurements. Analytical Chemistry, 2012, 84, 3546-3553.	6.5	21

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55	Electrochemical Performance of Selfâ€Assembled Monolayer Gold Nanoparticleâ€Modified Ultramicroelectrode Array Architectures. Electroanalysis, 2012, 24, 635-642.	2.9	10
56	Chemical Functionalization of Polysilicon Microparticles for Single-Cell Studies. Langmuir, 2011, 27, 8302-8308.	3.5	7
57	Electrical Readout of Protein Microarrays on Regular Glass Slides. Analytical Chemistry, 2011, 83, 1726-1731.	6.5	15
58	Fluorophore-doped xerogel antiresonant reflecting optical waveguides. Optics Express, 2011, 19, 5026.	3.4	4
59	Selective functionalisation of PDMS-based photonic lab on a chip for biosensing. Analyst, The, 2011, 136, 3496.	3.5	30
60	Carbon nanotube composite peptide-based biosensors as putative diagnostic tools for rheumatoid arthritis. Biosensors and Bioelectronics, 2011, 27, 113-118.	10.1	35
61	UV laser-induced high resolution cleaving of Si wafers for microâ€“nano devices and polymeric waveguide characterization. Applied Surface Science, 2011, 257, 5424-5428.	6.1	2
62	Dual photonic electrochemical lab on a chip for lactate detection in continuous flow mode. , 2011, , .		0
63	Peptideâ€Nanotube Biochips for Labelâ€Free Detection of Multiple Pathogens. Small, 2010, 6, 1092-1095.	10.0	29
64	Ultramicroelectrode Array Based Sensors: A Promising Analytical Tool for Environmental Monitoring. Sensors, 2010, 10, 475-490.	3.8	40
65	Algaeâ€“silica systems as functional hybrid materials. Journal of Materials Chemistry, 2010, 20, 9362-9369.	6.7	25
66	Plasma-activated multi-walled carbon nanotubeâ€“polystyrene composite substrates for biosensing. Nanotechnology, 2009, 20, 335501.	2.6	36
67	Gold nanoparticle-modified ultramicroelectrode arrays for biosensing: A comparative assessment. Bioelectrochemistry, 2009, 75, 176-181.	4.6	35
68	Gold nanoparticle-modified ultramicroelectrode arrays: A suitable transducer platform for the development of biosensors. Procedia Chemistry, 2009, 1, 666-669.	0.7	3
69	Hollow waveguide-based full-field absorbance biosensor. Sensors and Actuators B: Chemical, 2009, 139, 143-149.	7.8	8
70	Multiple internal reflection photonic lab on a chip. , 2009, , .		0
71	Flow injection analysis system based on amperometric thin-film transducers for free chlorine detection in swimming pool waters. Talanta, 2009, 77, 1739-1744.	5.5	44
72	Label-Free Cancer Cell Detection with Impedimetric Transducers. Analytical Chemistry, 2009, 81, 10167-10171.	6.5	35

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73	Single-Cell Pathogen Detection with a Reverse-Phase Immunoassay on Impedimetric Transducers. Analytical Chemistry, 2009, 81, 7732-7736.	6.5	14
74	Selective Detection of Live Pathogens via Surface-Confined Electric Field Perturbation on Interdigitated Silicon Transducers. Analytical Chemistry, 2009, 81, 3830-3835.	6.5	33
75	Silane Nanopatterns via Gasâ€Phase Soft Lithography. Small, 2008, 4, 1076-1079.	10.0	12
76	Discriminating the carboxylic groups from the total acidic sites in oxidized multi-wall carbon nanotubes by means of acidâ€“base titration. Chemical Physics Letters, 2008, 462, 256-259.	2.6	62
77	Composite planar electrode for sensing electrochemical oxygen demand. Analytica Chimica Acta, 2008, 607, 176-182.	5.4	34
78	Underpotential Depositionâ^'Anodic Stripping Voltammetric Detection of Copper at Gold Nanoparticle-Modified Ultramicroelectrode Arrays. Environmental Science & Technology, 2008, 42, 4877-4882.	10.0	48
79	Full-field photonic biosensors based on tunable bio-doped solâ€“gel glasses. Lab on A Chip, 2008, 8, 1185.	6.0	26
80	Optical Biosensor Based On Hollow Integrated Waveguides. Analytical Chemistry, 2008, 80, 3498-3501.	6.5	22
81	Spermine-Induced Hybridization and Charge Inversion at the Diffuse Layer of a DNA-FET. Journal of Physical Chemistry B, 2008, 112, 7614-7617.	2.6	2
82	Patterning High-Aspect-Ratio Solâ€“Gel Structures by Microtransfer Molding. Chemistry of Materials, 2008, 20, 2662-2668.	6.7	21
83	Scalable fabrication of immunosensors based on carbon nanotube polymer composites. Nanotechnology, 2008, 19, 075102.	2.6	37
84	Electric preconcentration and detection of latex beads with interdigitated electrodes. Applied Physics Letters, 2007, 90, 174104.	3.3	11
85	Local detection of enzymatic ion generation with polycrystalline silicon interdigitated electrodes and its application to biosensing. Applied Physics Letters, 2007, 90, 074102.	3.3	11
86	Characterization of ultramicroelectrode arrays combining electrochemical techniques and optical microscopy imaging. Electrochimica Acta, 2007, 53, 729-736.	5.2	33
87	Polysilicon interdigitated electrodes as impedimetric sensors. Electrochemistry Communications, 2006, 8, 1239-1244.	4.7	42
88	Electrochemical impedance spectroscopy studies of polymer degradation: application to biosensor development. TrAC - Trends in Analytical Chemistry, 2005, 24, 37-48.	11.4	158
89	One-step immunostrip test for the simultaneous detection of free and total prostate specific antigen in serum. Journal of Immunological Methods, 2005, 307, 1-12.	1.4	81
90	Quantitative impedimetric immunosensor for free and total prostate specific antigen based on a lateral flow assay format. Electrochemistry Communications, 2004, 6, 138-143.	4.7	44

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91	Disposable Noncompetitive Immunosensor for Free and Total Prostate-Specific Antigen Based on Capacitance Measurement. Analytical Chemistry, 2004, 76, 5649-5656.	6.5	121
92	Indirect Determination of Alkaline Phosphatase Based on the Amperometric Detection of Indigo Carmine at a Screen-Printed Electrode in a Flow System.. Analytical Sciences, 2002, 18, 1209-1213.	1.6	16
93	Comparative Voltammetric Behavior of Indigo Carmine at Screen-Printed Carbon Electrodes. Electroanalysis, 2002, 14, 665.	2.9	42
94	Voltammetric monitoring of laccase-catalysed mediated reactions. Bioelectrochemistry, 2002, 58, 149-156.	4.6	110
95	Voltammetric monitoring of the interaction between streptavidin and biotinylated alkaline phosphatase through the enzymatic hydrolysis of 3-indoxyl phosphate. Analytica Chimica Acta, 2000, 417, 57-65.	5.4	10
96	Voltammetric studies of indigo adsorbed on pre-treated carbon paste electrodes. Electrochemistry Communications, 2000, 2, 776-781.	4.7	40
97	AC voltammetric carbon paste-based enzyme immunosensors. Biosensors and Bioelectronics, 2000, 14, 917-924.	10.1	55
98	Colloidal gold as an electrochemical label of streptavidinâ€“biotin interaction. Biosensors and Bioelectronics, 2000, 15, 315-321.	10.1	97
99	Competitive enzyme immunosensor developed on a renewable carbon paste electrode support. Analytica Chimica Acta, 1999, 402, 119-127.	5.4	39
100	Inhibition of Adsorbed Alkaline Phosphatase Activity by an Anti-Enzyme Antibody. An Approach to Carbon Paste Immunoelectrodes. Electroanalysis, 1999, 11, 1350-1354.	2.9	6
101	3-Indoxyl Phosphate: an Alkaline Phosphatase Substrate for Enzyme Immunoassays with Voltammetric Detection. Electroanalysis, 1998, 10, 249-255.	2.9	40
102	3-Indoxyl Phosphate: an Alkaline Phosphatase Substrate for Enzyme Immunoassays with Voltammetric Detection. Electroanalysis, 1998, 10, 249-255.	2.9	0
103	Adsorption of immunoglobulin G on carbon paste electrodes as a basis for the development of immunoelectrochemical devices. Biosensors and Bioelectronics, 1997, 12, 403-413.	10.1	50
104	Biofunctionalization of PDMS-based microfluidic systems. Protocol Exchange, 0, , .	0.3	3