# CÃ©sar FernÃ¡ndez SÃ¡nchez

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 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 | Electrochemical impedance spectroscopy studies of polymer degradation: application to biosensor development. TrAC - Trends in Analytical Chemistry, 2005, 24, 37-48. | 11.4 | 158 |
| 2 | Disposable Noncompetitive Immunosensor for Free and Total Prostate-Specific Antigen Based on Capacitance Measurement. Analytical Chemistry, 2004, 76, 5649-5656. | 6.5 | 121 |
| 3 | Voltammetric monitoring of laccase-catalysed mediated reactions. Bioelectrochemistry, 2002, 58, 149-156. | 4.6 | 110 |
| 4 | 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 |
| 5 | Colloidal gold as an electrochemical label of streptavidinâ€“biotin interaction. Biosensors and Bioelectronics, 2000, 15, 315-321. | 10.1 | 97 |
| 6 | Electroanalytical Assessment of Heavy Metals in Waters with Bismuth Nanoparticle-Porous Carbon Paste Electrodes. Electrochimica Acta, 2015, 165, 155-161. | 5.2 | 85 |
| 7 | 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 |
| 8 | 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 |
| 9 | 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 |
| 10 | 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 |
| 11 | Thin-film electrochemical sensor for diphenylamine detection using molecularly imprinted polymers. Analytica Chimica Acta, 2014, 809, 141-147. | 5.4 | 60 |
| 12 | AC voltammetric carbon paste-based enzyme immunosensors. Biosensors and Bioelectronics, 2000, 14, 917-924. | 10.1 | 55 |
| 13 | Electrochemical Paper-Based Biosensor Devices for Rapid Detection of Biomarkers. Sensors, 2020, 20, 967. | 3.8 | 55 |
| 14 | Electrochemical Nanocomposite-Derived Sensor for the Analysis of Chemical Oxygen Demand in Urban Wastewaters. Analytical Chemistry, 2015, 87, 2152-2160. | 6.5 | 51 |
| 15 | 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 |
| 16 | Underpotential Depositionâ€"Anodic Stripping Voltammetric Detection of Copper at Gold Nanoparticle-Modified Ultramicroelectrode Arrays. Environmental Science & Technology, 2008, 42, 4877-4882. | 10.0 | 48 |
| 17 | Improving immunosensor performance through oriented immobilization of antibodies on carbon nanotube composite surfaces. Biosensors and Bioelectronics, 2013, 43, 274-280. | 10.1 | 48 |
| 18 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | 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 |
| 20 | 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 |
| 21 | Comparative Voltammetric Behavior of Indigo Carmine at Screen-Printed Carbon Electrodes. Electroanalysis, 2002, 14, 665. | 2.9 | 42 |
| 22 | Polysilicon interdigitated electrodes as impedimetric sensors. Electrochemistry Communications, 2006, 8, 1239-1244. | 4.7 | 42 |
| 23 | 3-Indoxyl Phosphate: an Alkaline Phosphatase Substrate for Enzyme Immunoassays with Voltammetric Detection. Electroanalysis, 1998, 10, 249-255. | 2.9 | 40 |
| 24 | Voltammetric studies of indigo adsorbed on pre-treated carbon paste electrodes. Electrochemistry Communications, 2000, 2, 776-781. | 4.7 | 40 |
| 25 | Ultramicroelectrode Array Based Sensors: A Promising Analytical Tool for Environmental Monitoring. Sensors, 2010, 10, 475-490. | 3.8 | 40 |
| 26 | 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 |
| 27 | Competitive enzyme immunosensor developed on a renewable carbon paste electrode support. Analytica Chimica Acta, 1999, 402, 119-127. | 5.4 | 39 |
| 28 | Scalable fabrication of immunosensors based on carbon nanotube polymer composites. Nanotechnology, 2008, 19, 075102. | 2.6 | 37 |
| 29 | Plasma-activated multi-walled carbon nanotubeâ€“polystyrene composite substrates for biosensing. Nanotechnology, 2009, 20, 335501. | 2.6 | 36 |
| 30 | Gold nanoparticle-modified ultramicroelectrode arrays for biosensing: A comparative assessment. Bioelectrochemistry, 2009, 75, 176-181. | 4.6 | 35 |
| 31 | Label-Free Cancer Cell Detection with Impedimetric Transducers. Analytical Chemistry, 2009, 81, 10167-10171. | 6.5 | 35 |
| 32 | Carbon nanotube composite peptide-based biosensors as putative diagnostic tools for rheumatoid arthritis. Biosensors and Bioelectronics, 2011, 27, 113-118. | 10.1 | 35 |
| 33 | Integration of microelectronic chips in microfluidic systems on printed circuit board. Journal of Micromechanics and Microengineering, 2012, 22, 105022. | 2.6 | 35 |
| 34 | Composite planar electrode for sensing electrochemical oxygen demand. Analytica Chimica Acta, 2008, 607, 176-182. | 5.4 | 34 |
| 35 | Characterization of ultramicroelectrode arrays combining electrochemical techniques and optical microscopy imaging. Electrochimica Acta, 2007, 53, 729-736. | 5.2 | 33 |
| 36 | Selective Detection of Live Pathogens via Surface-Confined Electric Field Perturbation on Interdigitated Silicon Transducers. Analytical Chemistry, 2009, 81, 3830-3835. | 6.5 | 33 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | 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 |
| 38 | Selective functionalisation of PDMS-based photonic lab on a chip for biosensing. Analyst, The, 2011, 136, 3496. | 3.5 | 30 |
| 39 | Peptideâ€Nanotube Biochips for Labelâ€Free Detection of Multiple Pathogens. Small, 2010, 6, 1092-1095. | 10.0 | 29 |
| 40 | 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 |
| 41 | Biomimetic Architectures for the Impedimetric Discrimination of Influenza Virus Phenotypes. Advanced Functional Materials, 2013, 23, 254-262. | 14.9 | 27 |
| 42 | 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 |
| 43 | Full-field photonic biosensors based on tunable bio-doped solâ€“gel glasses. Lab on A Chip, 2008, 8, 1185. | 6.0 | 26 |
| 44 | Algaeâ€“silica systems as functional hybrid materials. Journal of Materials Chemistry, 2010, 20, 9362-9369. | 6.7 | 25 |
| 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 | 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 |
| 47 | Gold cluster based electrocatalytic sensors for the detection of formaldehyde. Analytical Methods, 2015, 7, 538-542. | 2.7 | 23 |
| 48 | Optical Biosensor Based On Hollow Integrated Waveguides. Analytical Chemistry, 2008, 80, 3498-3501. | 6.5 | 22 |
| 49 | Diagnostics Using Multiplexed Electrochemical Readout Devices. Electroanalysis, 2014, 26, 1154-1170. | 2.9 | 22 |
| 50 | Patterning High-Aspect-Ratio Solâ€“Gel Structures by Microtransfer Molding. Chemistry of Materials, 2008, 20, 2662-2668. | 6.7 | 21 |
| 51 | Dual Photonic-Electrochemical Lab on a Chip for Online Simultaneous Absorbance and Amperometric Measurements. Analytical Chemistry, 2012, 84, 3546-3553. | 6.5 | 21 |
| 52 | 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 |
| 53 | Self-validating lab-on-a-chip for monitoring enzyme-catalyzed biological reactions. Sensors and Actuators B: Chemical, 2016, 237, 16-23. | 7.8 | 19 |
| 54 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | 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 |
| 56 | 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 |
| 57 | Electrical Readout of Protein Microarrays on Regular Glass Slides. Analytical Chemistry, 2011, 83, 1726-1731. | 6.5 | 15 |
| 58 | A microfluidic device for the automated electrical readout of low-density glass-slide microarrays. Biosensors and Bioelectronics, 2015, 74, 698-704. | 10.1 | 15 |
| 59 | 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 |
| 60 | Single-Cell Pathogen Detection with a Reverse-Phase Immunoassay on Impedimetric Transducers. Analytical Chemistry, 2009, 81, 7732-7736. | 6.5 | 14 |
| 61 | Microfluidic Modules with Integrated Solid-State Sensors for Reconfigurable Miniaturized Analysis Systems. ACS Omega, 2019, 4, 6192-6198. | 3.5 | 13 |
| 62 | Silane Nanopatterns via Gasâ€Phase Soft Lithography. Small, 2008, 4, 1076-1079. | 10.0 | 12 |
| 63 | Multiple actuation microvalves in wax microfluidics. Lab on A Chip, 2016, 16, 3969-3976. | 6.0 | 12 |
| 64 | Electric preconcentration and detection of latex beads with interdigitated electrodes. Applied Physics Letters, 2007, 90, 174104. | 3.3 | 11 |
| 65 | 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 |
| 66 | Compact Electrochemical Flow System for the Analysis of Environmental Pollutants. Electroanalysis, 2014, 26, 497-506. | 2.9 | 11 |
| 67 | 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 |
| 68 | Development and integration of xerogel polymeric absorbance micro-filters into lab-on-chip systems. Optics Express, 2012, 20, 23700. | 3.4 | 10 |
| 69 | Electrochemical Performance of Selfâ€Assembled Monolayer Gold Nanoparticleâ€Modified Ultramicroelectrode Array Architectures. Electroanalysis, 2012, 24, 635-642. | 2.9 | 10 |
| 70 | 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 |
| 71 | 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 |
| 72 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Hollow waveguide-based full-field absorbance biosensor. Sensors and Actuators B: Chemical, 2009, 139, 143-149. | 7.8 | 8 |
| 74 | Carbonâ€“Silica Composites to Produce Highly Robust Thinâ€Film Electrochemical Microdevices. Advanced Materials Technologies, 2017, 2, 1700163. | 5.8 | 8 |
| 75 | Decentralized analysis of water contaminants using compact (bio)electroanalytical tools. Current Opinion in Environmental Science and Health, 2019, 10, 47-56. | 4.1 | 8 |
| 76 | Miniature Gigahertz Acoustic Resonator and On-Chip Electrochemical Sensor: An Emerging Combination for Electroanalytical Microsystems. Analytical Chemistry, 2019, 91, 15959-15966. | 6.5 | 8 |
| 77 | Chemical Functionalization of Polysilicon Microparticles for Single-Cell Studies. Langmuir, 2011, 27, 8302-8308. | 3.5 | 7 |
| 78 | 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 |
| 79 | 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 |
| 80 | 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 |
| 81 | Electrochemically Active Thin Carbon Films with Enhanced Adhesion to Silicon Substrates. ACS Applied Materials & Interfaces, 2016, 8, 31092-31099. | 8.0 | 6 |
| 82 | Compact sampling device based on wax microfluidics. Sensors and Actuators B: Chemical, 2017, 251, 93-98. | 7.8 | 5 |
| 83 | Fluorophore-doped xerogel antiresonant reflecting optical waveguides. Optics Express, 2011, 19, 5026. | 3.4 | 4 |
| 84 | 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 |
| 85 | Metal Nanoparticle Carbon Gel Composites in Environmental Water Sensing Applications. Chemical Record, 2018, 18, 749-758. | 5.8 | 4 |
| 86 | 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 |
| 87 | Hybrid Technologies Combining Solid-State Sensors and Paper/Fabric Fluidics for Wearable Analytical Devices. Biosensors, 2021, 11, 303. | 4.7 | 4 |
| 88 | Gold nanoparticle-modified ultramicroelectrode arrays: A suitable transducer platform for the development of biosensors. Procedia Chemistry, 2009, 1, 666-669. | 0.7 | 3 |
| 89 | Bulk silica-based luminescent materials by sol-gel processing of non-conventional precursors. Applied Physics Letters, 2012, 101, 171908. | 3.3 | 3 |
| 90 | Reusable conductimetric array of interdigitated microelectrodes for the readout of low-density microarrays. Analytica Chimica Acta, 2014, 832, 44-50. | 5.4 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Biofunctionalization of PDMS-based microfluidic systems. Protocol Exchange, 0, , . | 0.3 | 3 |
| 92 | 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 |
| 93 | 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 |
| 94 | 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 |
| 95 | Miniaturized Flow-System Integrating Enzymatic Electrochemical Biosensors for Monitoring the Malolactic Fermentation of Red Wines. Proceedings (mdpi), 2017, 1, 787. | 0.2 | 2 |
| 96 | Multisensing Wearable Technology for Sweat Biomonitoring. Engineering Proceedings, 2021, 6, . | 0.4 | 1 |
| 97 | Bio and soft-imprinting lithography on bacterial cellulose films. Materials Today Chemistry, 2021, 21, 100535. | 3.5 | 1 |
| 98 | Multiple internal reflection photonic lab on a chip. , 2009, , . | | 0 |
| 99 | Dual photonic electrochemical lab on a chip for lactate detection in continuous flow mode. , 2011, , . | | 0 |
| 100 | Conductimetric transducer array for the readout of low-density protein microarrays. , 2013, , . | | 0 |
| 101 | Stripping voltammetric detection of trace heavy metals using gold ultramicroelectrode arrays. , 2014, , . | | 0 |
| 102 | Wax microfluidics light-addressable valve with multiple actuation. Proceedings of SPIE, 2017, , . | 0.8 | 0 |
| 103 | Compact Microfluidic Platform with LED Light-Actuated Valves for Enzyme-Linked Immunosorbent Assay Automation. Biosensors, 2022, 12, 280. | 4.7 | 0 |
| 104 | 3-Indoxyl Phosphate: an Alkaline Phosphatase Substrate for Enzyme Immunoassays with Voltammetric Detection. Electroanalysis, 1998, 10, 249-255. | 2.9 | 0 |