M Teresa FernÃ¡ndez-Abedul

List of Publications by Year
in descending order

106 papers	3,649 citations	172457 29 h-index	144013 57 g-index
110 all docs	110 docs citations	110 times ranked	4653 citing authors

#	Article	IF	Citations
1	Disposable Sensors in Diagnostics, Food, and Environmental Monitoring. Advanced Materials, 2019, 31, e1806739.	21.0	540
2	Open-Source Potentiostat for Wireless Electrochemical Detection with Smartphones. Analytical Chemistry, 2018, 90, 6240-6246.	6.5	260
3	Universal mobile electrochemical detector designed for use in resource-limited applications. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11984-11989.	7.1	248
4	Integrating Electronics and Microfluidics on Paper. Advanced Materials, 2016, 28, 5054-5063.	21.0	216
5	Folding Analytical Devices for Electrochemical ELISA in Hydrophobic R^H Paper. Analytical Chemistry, 2014, 86, 11999-12007.	6.5	127
6	High-voltage contactless conductivity-detection for lab-on-chip devices using external electrodes on the holder. Analyst, The, 2003, 128, 1019-1022.	3.5	97
7	Au@Ag SERRS tags coupled to a lateral flow immunoassay for the sensitive detection of pneumolysin. Nanoscale, 2017, 9, 2051-2058.	5.6	91
8	Detection of Human Immunoglobulin in Microchip and Conventional Capillary Electrophoresis with Contactless Conductivity Measurements. Analytical Chemistry, 2004, 76, 1282-1288.	6.5	83
9	Point-of-need simultaneous electrochemical detection of lead and cadmium using low-cost stencil-printed transparency electrodes. Analytica Chimica Acta, 2017, 981, 24-33.	5.4	81
10	Paper-based maskless enzymatic sensor for glucose determination combining ink and wire electrodes. Biosensors and Bioelectronics, 2017, 93, 40-45.	10.1	69
11	Genosensor on gold films with enzymatic electrochemical detection of a SARS virus sequenceâ˜†. Biosensors and Bioelectronics, 2005, 20, 2251-2260.	10.1	68
12	Laser ablation ICP-MS for simultaneous quantitative imaging of iron and ferroportin in hippocampus of human brain tissues with Alzheimer's disease. Talanta, 2019, 197, 413-421.	5.5	64
13	Poly(methylmethacrylate) and Topas capillary electrophoresis microchip performance with electrochemical detection. Electrophoresis, 2005, 26, 3160-3168.	2.4	60
14	Electrochemical characterization of different screen-printed gold electrodes. Electrochimica Acta, 2008, 53, 3242-3249.	5.2	53
15	Electroanalytical devices with pins and thread. Lab on A Chip, 2016, 16, 112-119.	6.0	52
16	Critical points in the fabrication of microfluidic devices on glass substrates. Sensors and Actuators B: Chemical, 2008, 130, 436-448.	7.8	50
17	Paper-Based Screen-Printed Electrodes: A New Generation of Low-Cost Electroanalytical Platforms. Biosensors, 2021, 11, 51.	4.7	49
18	Electrogeneration of Gold Nanoparticles on Porous-Carbon Paper-Based Electrodes and Application to Inorganic Arsenic Analysis in White Wines by Chronoamperometric Stripping. Analytical Chemistry, 2017, 89, 6415-6423.	6.5	47

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19	Paper-based electrochemical transducer modified with nanomaterials for mercury determination in environmental waters. Sensors and Actuators B: Chemical, 2019, 290, 87-92.	7.8	47
20	Preconcentration and sensitive determination of the anti-inflammatory drug diclofenac on a paper-based electroanalytical platform. Analytica Chimica Acta, 2019, 1074, 89-97.	5.4	43
21	DNA single-base mismatch study with an electrochemical enzymatic genosensor. Biosensors and Bioelectronics, 2007, 22, 1642-1650.	10.1	42
22	Pin-based electrochemical glucose sensor with multiplexing possibilities. Biosensors and Bioelectronics, 2017, 88, 34-40.	10.1	41
23	Amperometric detector designs for capillary electrophoresis microchips. Journal of Chromatography A, 2006, 1109, 291-299.	3.7	40
24	Design and evaluation of a new Peltier-cooled laser ablation cell with on-sample temperature control. Analytica Chimica Acta, 2014, 809, 88-96.	5.4	36
25	Carbon nanotubes (CNTs)-based electroanalysis. Analytical and Bioanalytical Chemistry, 2008, 390, 293-298.	3.7	33
26	Fabrication of SU-8 based microchip electrophoresis with integrated electrochemical detection for neurotransmitters. Talanta, 2009, 80, 24-30.	5.5	33
27	Integration of gold-sputtered electrofluidic paper on wire-included analytical platforms for glucose biosensing. Biosensors and Bioelectronics, 2017, 91, 824-832.	10.1	32
28	Anodic Stripping of Heavy Metals Using a Hanging Mercury Drop Electrode in a Flow System. Electroanalysis, 1998, 10, 701-706.	2.9	31
29	Flow injection electrochemical enzyme immunoassay based on the use of gold bands. Analytica Chimica Acta, 2000, 409, 149-158.	5.4	31
30	Oriented immobilisation of anti-pneumolysin Fab through a histidine tag for electrochemical immunosensors. Biosensors and Bioelectronics, 2007, 23, 210-217.	10.1	30
31	Electroactive intercalators for DNA analysis on microchip electrophoresis. Electrophoresis, 2007, 28, 4679-4689.	2.4	29
32	In situ gold-nanoparticle electrogeneration on gold films deposited on paper for non-enzymatic electrochemical determination of glucose. Talanta, 2018, 178, 160-165.	5.5	29
33	Dispersion studies of carboxyl, amine and thiol-functionalized carbon nanotubes for improving the electrochemical behavior of screen printed electrodes. Sensors and Actuators B: Chemical, 2013, 181, 353-360.	7.8	28
34	Methylene blue covalently attached to single stranded DNA as electroactive label for potential bioassays. Sensors and Actuators B: Chemical, 2014, 191, 784-790.	7.8	28
35	Flow injection analysis with amperometric detection of cocaine in confiscated samples. Analytica Chimica Acta, 1996, 328, 67-71.	5.4	27
36	Sampling and multiplexing in lab-on-paper bioelectroanalytical devices for glucose determination. Biosensors and Bioelectronics, 2019, 135, 64-70.	10.1	27

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37	Quantitative mapping of specific proteins in biological tissues by laser ablationâ€“ICP-MS using exogenous labels: aspects to be considered. Analytical and Bioanalytical Chemistry, 2019, 411, 549-558.	3.7	27
38	Determination of Buprenorphine in Pharmaceuticals and Human Urine by Adsorptive Stripping Voltammetry in Batch and Flow Systems. Electroanalysis, 2000, 12, 483-489.	2.9	26
39	Quantitative Imaging of Specific Proteins in the Human Retina by Laser Ablation ICPMS using Bioconjugated Metal Nanoclusters as Labels. Analytical Chemistry, 2018, 90, 12145-12151.	6.5	26
40	Flow amperometric detection of indigo for enzyme-linked immunosorbent assays with use of screen-printed electrodes. Analytica Chimica Acta, 2002, 462, 31-37.	5.4	25
41	Voltammetric and flow amperometric methods for the determination of melatonin in pharmaceuticals. Journal of Pharmaceutical and Biomedical Analysis, 2003, 31, 421-429.	2.8	25
42	Microchip electrophoresis with amperometric detection for a novel determination of phenolic compounds in olive oil. Analyst, The, 2012, 137, 5153.	3.5	24
43	Coated and uncoated cellophane as materials for microplates and open-channel microfluidics devices. Lab on A Chip, 2016, 16, 3885-3897.	6.0	24
44	Bioelectroanalysis in a Drop: Construction of a Glucose Biosensor. Journal of Chemical Education, 2017, 94, 806-812.	2.3	23
45	Nanoparticles as labels of specific-recognition reactions for the determination of biomolecules by inductively coupled plasma-mass spectrometry. Analytica Chimica Acta, 2020, 1128, 251-268.	5.4	23
46	Flow injection analysis with amperometric detection of naltrexone in pharmaceuticals. Journal of Pharmaceutical and Biomedical Analysis, 1997, 16, 15-19.	2.8	22
47	Batch injection electroanalysis with stainless-steel pins as electrodes in single and multiplexed configurations. Sensors and Actuators B: Chemical, 2017, 253, 1207-1213.	7.8	21
48	Voltammetric Determination of Naltrexone in Pharmaceuticals.. Analytical Letters, 1997, 30, 1491-1502.	1.8	20
49	Gold bands as a suitable surface for enzyme immunoassays. Biosensors and Bioelectronics, 2002, 17, 797-802.	10.1	20
50	Fabrication and evaluation of single- and dual-channel (Î-design) microchip electrophoresis with electrochemical detection. Journal of Chromatography A, 2008, 1180, 193-202.	3.7	20
51	NafionÂ® modified-screen printed gold electrodes and their carbon nanostructuration for electrochemical sensors applications. Talanta, 2013, 107, 376-381.	5.5	20
52	Folding-Based Electrochemical Aptasensor for the Determination of Î²-Lactoglobulin on Poly-L-Lysine Modified Graphite Electrodes. Sensors, 2020, 20, 2349.	3.8	20
53	Enhanced detection of the potential electroactive label methylene blue by electrode nanostructuration with carbon nanotubes. Sensors and Actuators B: Chemical, 2014, 202, 129-136.	7.8	19
54	Multiplex bioimaging of proteins-related to neurodegenerative diseases in eye sections by laser ablation - Inductively coupled plasma â€“ Mass spectrometry using metal nanoclusters as labels. Talanta, 2021, 221, 121489.	5.5	19

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55	Sensitive Adsorptive Stripping Voltammetric Methodologies for the Determination of Melatonin in Biological Fluids. Electroanalysis, 2003, 15, 773-778.	2.9	18
56	Kinetic determination of acid phosphatase activity by double injection flow analysis with electrochemical detection. Analytica Chimica Acta, 2000, 413, 103-108.	5.4	17
57	Fabrication of Paperâ€Templated Structures of Noble Metals. Advanced Materials Technologies, 2017, 2, 1600229.	5.8	17
58	Voltammetric study and determination of buprenorphine in pharmaceuticals. Journal of Pharmaceutical and Biomedical Analysis, 1999, 21, 809-815.	2.8	15
59	Amperometric PMMA-microchip with integrated gold working electrode for enzyme assays. Analytical and Bioanalytical Chemistry, 2005, 382, 303-310.	3.7	15
60	MCEâ€electrochemical detection for following interactions of ssDNA and dsDNA with methylene blue. Electrophoresis, 2009, 30, 1943-1948.	2.4	15
61	Multipleâ€point electrochemical detection for a dualâ€channel hybrid PDMSâ€glass microchip electrophoresis device. Electrophoresis, 2009, 30, 3372-3380.	2.4	15
62	Sensitive detection for enzyme-linked immunosorbent assays based on the adsorptive stripping voltammetry of indigo in a flow system. Analytica Chimica Acta, 2001, 442, 55-62.	5.4	14
63	Fluorescent silver nanoclusters as antibody label in a competitive immunoassay for the complement factor H. Mikrochimica Acta, 2019, 186, 429.	5.0	14
64	Micropipette Tip-Based Immunoassay with Electrochemical Detection of Antitissue Transglutaminase to Diagnose Celiac Disease Using Staples and a Paper-Based Platform. ACS Sensors, 2019, 4, 2679-2687.	7.8	13
65	Poly (acrylic acid) microchannel modification for the enhanced resolution of catecholamines microchip electrophoresis with electrochemical detection. Analytica Chimica Acta, 2012, 724, 136-143.	5.4	12
66	Comparative voltammetric study of 2,4-dinitrophenol (DNP), albumin and DNP-albumin as an analytical approach to the use of DNP as a universal label in immunoelectrochemical assays. Talanta, 1994, 41, 1191-1200.	5.5	11
67	Analytical Performance of CE Microchips with Amperometric Detection. Instrumentation Science and Technology, 2006, 34, 697-710.	1.8	11
68	Electrochemical properties of spaghetti and forest like carbon nanotubes grown on glass substrates. Sensors and Actuators B: Chemical, 2014, 192, 253-260.	7.8	11
69	Pin-Based Flow Injection Electroanalysis. Analytical Chemistry, 2016, 88, 9958-9963.	6.5	10
70	Stapleâ€Based Paper Electrochemical Platform for Celiac Disease Diagnosis. ChemElectroChem, 2018, 5, 4036-4045.	3.4	10
71	Bimodal determination of immunoglobulin E by fluorometry and ICP-MS by using platinum nanoclusters as a label in an immunoassay. Mikrochimica Acta, 2019, 186, 705.	5.0	10
72	Isotopically Enriched Tracers and Inductively Coupled Plasma Mass Spectrometry Methodologies to Study Zinc Supplementation in Single-Cells of Retinal Pigment Epithelium in Vitro. Analytical Chemistry, 2019, 91, 4488-4495.	6.5	10

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73	Imaging of proteins in biological tissues by fluorescence microscopy and laser ablation-ICP-MS using natural and isotopically enriched silver nanoclusters. Journal of Analytical Atomic Spectrometry, 2020, 35, 1868-1879.	3.0	10
74	Ionic liquids as modifiers for glass and SU-8 electrochemical microfluidic chips. Sensors and Actuators B: Chemical, 2013, 188, 837-846.	7.8	9
75	Dual screen-printed electrodes with elliptic working electrodes arranged in parallel or perpendicular to the strip. Sensors and Actuators B: Chemical, 2014, 198, 302-308.	7.8	9
76	Enzymatic amplification-free nucleic acid hybridisation sensing on nanostructured thick-film electrodes by using covalently attached methylene blue. Talanta, 2015, 142, 11-19.	5.5	9
77	Optimization and characterization of nanostructured paper-based electrodes. Electrochimica Acta, 2018, 265, 717-725.	5.2	9
78	Obtaining information from the brain in a non-invasive way: determination of iron in nasal exudate to differentiate hemorrhagic and ischemic strokes. Clinical Chemistry and Laboratory Medicine, 2020, 58, 847-853.	2.3	9
79	Determination of acid phosphatase activity in a double injection flow system with electrochemical detection. Analytica Chimica Acta, 2000, 406, 225-232.	5.4	8
80	Simultaneous and sequential enzyme immunoassays on gold bands with flow electrochemical detection. Analytica Chimica Acta, 2002, 453, 63-69.	5.4	8
81	Gold Electrodes for Detection of Enzyme Assays with 3-Indoxylphosphate as Substrate. Electroanalysis, 2004, 16, 1487-1496.	2.9	8
82	Paper-based platforms with coulometric readout for ascorbic acid determination in fruit juices. Analyst, The, 2020, 145, 3431-3439.	3.5	8
83	Fully integrated sampler and dilutor in an electrochemical paper-based device for glucose sensing. Mikrochimica Acta, 2021, 188, 302.	5.0	7
84	Poly(glycidyl methacrylate) as a tunable platform of modifiers for microfluidic devices. Reactive and Functional Polymers, 2016, 100, 89-96.	4.1	6
85	Integrated Electrophoresis Separation and Electrochemical Detection in a Paper-based Device. Procedia Technology, 2017, 27, 21-22.	1.1	6
86	The use of gold bands for flow immunoelectrochemical devices. Analytical and Bioanalytical Chemistry, 2003, 377, 267-272.	3.7	5
87	Electrochemical micropipette-tip for low-cost environmental applications: Determination of anionic surfactants through their interaction with methylene blue. Talanta, 2021, 224, 121732.	5.5	5
88	Determination of buprenorphine in biological samples by high performance liquid chromatography with electrochemical detection. Chromatographia, 2001, 53, 704-708.	1.3	4
89	Characterization of Doped Amorphous Silicon Thin Films through the Investigation of Dopant Elements by Glow Discharge Spectrometry: A Correlation of Conductivity and Bandgap Energy Measurements. International Journal of Molecular Sciences, 2011, 12, 2200-2215.	4.1	4
90	Comparative electrochemical behaviour of biotin hydrazide and photobiotin. Importance in the development of biosensors. Biosensors and Bioelectronics, 1999, 14, 729-735.	10.1	3

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91	Chapter 34 Miniaturised devices: electrochemical capillary electrophoresis microchips for clinical application. Comprehensive Analytical Chemistry, 2007, , 827-872.	1.3	2
92	Chapter 26 Thick- and thin-film DNA sensors. Comprehensive Analytical Chemistry, 2007, , 603-641.	1.3	2
93	Gold Nanostructuration in Paper-based Electrodes. Procedia Technology, 2017, 27, 133-134.	1.1	2
94	Double-chained cationic surfactant modification of SU-8/PyrexÂ® microchips for electrochemical sensing of carboxylic ferrocene after reverse electrophoresis. Sensors and Actuators B: Chemical, 2018, 255, 490-497.	7.8	2
95	REFRACTIVE INDEX AND THICKNESS EVALUATION OF MONOMODE AND MULTIMODE STEP-INDEX PLANAR OPTICAL WAVEGUIDES USING LONGITUDINAL SECTION MAGNETIC (LSM) AND LONGITUDINAL SECTION ELECTRIC (LSE) FORMULATION. Progress in Electromagnetics Research B, 2013, 46, 213-231.	1.0	1
96	Point-of-Use Simultaneous Electrochemical Detection of Lead and Cadmium Using Low-cost Screen-printed Transparency Electrodes. Procedia Technology, 2017, 27, 135-136.	1.1	1
97	Determination of Buprenorphine in Pharmaceuticals and Human Urine by Adsorptive Stripping Voltammetry in Batch and Flow Systems. Electroanalysis, 2000, 12, 483-489.	2.9	1
98	Iron Measured in Nasal Exudate Samples as a New and Useful Biomarker in the Differential Diagnosis of Patients with Acute Stroke. Cerebrovascular Diseases, 2020, 49, 625-631.	1.7	1
99	Microcentrifuge tubes as disposable immunoelectrochemical cells for the on-site detection of GFAP, biomarker of hemorrhagic stroke. , 2020, 60, .		1
100	Signal detection techniques. , 2022, , 71-122.		1
101	Procedure 36 Genosensor on gold thin-films with enzymatic electrochemical detection of a SARS virus sequence. Comprehensive Analytical Chemistry, 2007, 49, e251-e256.	1.3	0
102	Procedure 48 Separation and amperometric detection of hydrogen peroxide and l-ascorbic acid using capillary electrophoresis microchips. Comprehensive Analytical Chemistry, 2007, 49, e343-e349.	1.3	0
103	Pin-based Enzymatic Electrochemical Sensing. Procedia Technology, 2017, 27, 98-99.	1.1	0
104	Paper-based Stencil-free Enzymatic Sensor with Ink and Wire Electrodes. Procedia Technology, 2017, 27, 126-128.	1.1	0
105	Synthesis of Iridium and Palladium Nanoclusters for Biomedical Applications. Materials Proceedings, 2021, 4, 49.	0.2	0
106	Metallic Pins as Electrodes in Low-Cost (Bio)Electroanalytical Devices. , 2020, 60, .		0