MarÃ-a Pedrero

List of Publications by Year
in descending order

113 papers	3,551 citations	109321 35 h-index	168389 53 g-index
115 all docs	115 docs citations	115 times ranked	3961 citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of alkanethiol-self-assembled monolayers-modified gold electrodes by electrochemical impedance spectroscopy. Journal of Electroanalytical Chemistry, 2006, 586, 112-121.	3.8	166
2	Electrochemical activation of screen-printed carbon strips. Analyst, The, 1996, 121, 345.	3.5	160
3	Amperometric flow-injection determination of phenolic compounds at self-assembled monolayer-based tyrosinase biosensors. Analytica Chimica Acta, 2003, 494, 187-197.	5.4	136
4	Preparation, characterization and application of alkanethiol self-assembled monolayers modified with tetrathiafulvalene and glucose oxidase at a gold disk electrode. Journal of Electroanalytical Chemistry, 2002, 526, 92-100.	3.8	113
5	Antifouling (Bio)materials for Electrochemical (Bio)sensing. International Journal of Molecular Sciences, 2019, 20, 423.	4.1	93
6	Gold screen-printed-based impedimetric immunobiosensors for direct and sensitive Escherichia coli quantisation. Biosensors and Bioelectronics, 2009, 24, 3365-3371.	10.1	87
7	An electrochemical immunosensor using gold nanoparticles-PAMAM-nanostructured screen-printed carbon electrodes for tau protein determination in plasma and brain tissues from Alzheimer patients. Biosensors and Bioelectronics, 2020, 163, 112238.	10.1	83
8	Dual Functional Graphene Derivative-Based Electrochemical Platforms for Detection of the TP53 Gene with Single Nucleotide Polymorphism Selectivity in Biological Samples. Analytical Chemistry, 2015, 87, 2290-2298.	6.5	76
9	Ultrasensitive amperometric magnetoimmunosensor for human C-reactive protein quantification in serum. Sensors and Actuators B: Chemical, 2013, 188, 212-220.	7.8	68
10	New challenges in point of care electrochemical detection of clinical biomarkers. Sensors and Actuators B: Chemical, 2021, 345, 130349.	7.8	67
11	A peroxidase-tetrathiafulvalene biosensor based on self-assembled monolayer modified Au electrodes for the flow-injection determination of hydrogen peroxide. Talanta, 2005, 66, 1310-1319.	5.5	66
12	Sensitive and rapid amperometric magnetoimmunosensor for the determination of Staphylococcus aureus. Analytical and Bioanalytical Chemistry, 2012, 403, 917-925.	3.7	66
13	Electrochemical genosensors for the detection of cancer-related miRNAs. Analytical and Bioanalytical Chemistry, 2014, 406, 27-33.	3.7	65
14	Disposable Magnetic DNA Sensors for the Determination at the Attomolar Level of a Specific Enterobacteriaceae Family Gene. Analytical Chemistry, 2008, 80, 8239-8245.	6.5	62
15	Electrochemical affinity biosensors for fast detection of gene-specific methylations with no need for bisulfite and amplification treatments. Scientific Reports, 2018, 8, 6418.	3.3	62
16	Rapid Electrochemical Assessment of Tumor Suppressor Gene Methylations in Raw Human Serum and Tumor Cells and Tissues Using Immunomagnetic Beads and Selective DNA Hybridization. Angewandte Chemie - International Edition, 2018, 57, 8194-8198.	13.8	61
17	Electroanalytical Sensors and Devices for Multiplexed Detection of Foodborne Pathogen Microorganisms. Sensors, 2009, 9, 5503-5520.	3.8	60
18	Electrochemical Biosensors for the Determination of Cardiovascular Markers: a Review. Electroanalysis, 2014, 26, 1132-1153.	2.9	58

#	Article	IF	Citations
19	Versatile Electroanalytical Bioplatforms for Simultaneous Determination of Cancer-Related DNA 5-Methyl- and 5-Hydroxymethyl-Cytosines at Global and Gene-Specific Levels in Human Serum and Tissues. ACS Sensors, 2019, 4, 227-234.	7.8	56
20	Remarkably selective metallized-carbon amperometric biosensors. Analytica Chimica Acta, 1995, 305, 3-7.	5.4	53
21	Screen-printed amperometric biosensors for glucose and alcohols based on ruthenium-dispersed carbon inks. Analytica Chimica Acta, 1995, 300, 111-116.	5.4	50
22	Rapid Electrochemical Assessment of Tumor Suppressor Gene Methylations in Raw Human Serum and Tumor Cells and Tissues Using Immunomagnetic Beads and Selective DNA Hybridization. Angewandte Chemie, 2018, 130, 8326-8330.	2.0	49
23	Immunosensor for the determination of Staphylococcus aureus using a tyrosinaseâ€“mercaptopropionic acid modified electrode as an amperometric transducer. Analytical and Bioanalytical Chemistry, 2008, 391, 837-845.	3.7	48
24	Quantum Dots as Components of Electrochemical Sensing Platforms for the Detection of Environmental and Food Pollutants: a Review. Journal of AOAC INTERNATIONAL, 2017, 100, 950-961.	1.5	46
25	DNA sensor based on an Escherichia coli lac Z gene probe immobilization at self-assembled monolayers-modified gold electrodes. Talanta, 2007, 73, 838-844.	5.5	45
26	Hybrid 2D-nanomaterials-based electrochemical immunosensing strategies for clinical biomarkers determination. Biosensors and Bioelectronics, 2017, 89, 269-279.	10.1	45
27	Adaptive Orientation of Multifunctional Nanowires for Magnetic Control of Bioelectrocatalytic Processes. Angewandte Chemie - International Edition, 2007, 46, 1508-1511.	13.8	43
28	Magnetic Beadsâ€Based Electrochemical Sensors Applied to the Detection and Quantification of Bioterrorism/Biohazard Agents. Electroanalysis, 2012, 24, 470-482.	2.9	41
29	Comparison of Different Strategies for the Development of Highly Sensitive Electrochemical Nucleic Acid Biosensors Using Neither Nanomaterials nor Nucleic Acid Amplification. ACS Sensors, 2018, 3, 211-221.	7.8	41
30	Disposable amperometric magnetoimmunosensors for the specific detection of Streptococcus pneumoniae. Biosensors and Bioelectronics, 2010, 26, 1225-1230.	10.1	40
31	Non-Invasive Breast Cancer Diagnosis through Electrochemical Biosensing at Different Molecular Levels. Sensors, 2017, 17, 1993.	3.8	40
32	Determination of formaldehyde in air by flow injection using pararosaniline and spectrophotometric detection. Analyst, The, 1989, 114, 1469-1471.	3.5	37
33	Multiplexed Determination of Aminoâ€Terminal Proâ€Bâ€Type Natriuretic Peptide and Câ€Reactive Protein Cardiac Biomarkers in Human Serum at a Disposable Electrochemical Magnetoimmunosensor. Electroanalysis, 2014, 26, 254-261.	2.9	37
34	An integrated electrochemical fructose biosensor based on tetrathiafulvalene-modified self-assembled monolayers on gold electrodes. Analytical and Bioanalytical Chemistry, 2003, 377, 600-607.	3.7	36
35	An integrated bienzyme glucose oxidaseâ€“fructose dehydrogenaseâ€“tetrathiafulvalene-3-mercaptopropionic acidâ€“gold electrode for the simultaneous determination of glucose and fructose. Bioelectrochemistry, 2004, 63, 199-206.	4.6	36
36	Electrochemical immunosensor designs for the determination of Staphylococcus aureus using 3,3-dithiodipropionic acid di(N-succinimidyl ester)-modified gold electrodes. Talanta, 2008, 77, 876-881.	5.5	36

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37	Amperometric Bioplatforms To Detect Regional DNA Methylation with Single-Base Sensitivity. Analytical Chemistry, 2020, 92, 5604-5612.	6.5	35
38	Disposable amperometric magnetoimmunosensor for the sensitive detection of the cardiac biomarker amino-terminal pro-B-type natriuretic peptide in human serum. Analytica Chimica Acta, 2013, 784, 18-24.	5.4	34
39	Nanozymes in electrochemical affinity biosensing. Mikrochimica Acta, 2020, 187, 423.	5.0	34
40	Beyond Sensitive and Selective Electrochemical Biosensors: Towards Continuous, Real-Time, Antibiofouling and Calibration-Free Devices. Sensors, 2020, 20, 3376.	3.8	33
41	Flow injection and HPLC determination of furosemide using pulsed amperometric detection at microelectrodes. Journal of Pharmaceutical and Biomedical Analysis, 2003, 33, 923-933.	2.8	32
42	Molecular mechanisms of methylmercury-induced cell death in human HepG2 cells. Food and Chemical Toxicology, 2010, 48, 1405-1411.	3.6	32
43	Electrochemical genosensors based on PCR strategies for microorganisms detection and quantification. Analytical Methods, 2011, 3, 780.	2.7	32
44	Disposable immunoplatforms for the simultaneous determination of biomarkers for neurodegenerative disorders using poly(amidoamine) dendrimer/gold nanoparticle nanocomposite. Analytical and Bioanalytical Chemistry, 2021, 413, 799-811.	3.7	32
45	Development of a DNA Sensor Based on Alkanethiol Self- Assembled Monolayer-Modified Electrodes. Sensors, 2005, 5, 344-363.	3.8	30
46	Development of amperometric magnetogenosensors coupled to asymmetric PCR for the specific detection of Streptococcus pneumoniae. Analytical and Bioanalytical Chemistry, 2011, 399, 2413-2420.	3.7	30
47	Magnetic Beads-Based Sensor with Tailored Sensitivity for Rapid and Single-Step Amperometric Determination of miRNAs. International Journal of Molecular Sciences, 2017, 18, 2151.	4.1	30
48	Designs of Enterobacteriaceae Lac Z Gene DNA Gold Screen Printed Biosensors. Electroanalysis, 2008, 20, 1397-1405.	2.9	28
49	Electrochemical biosensors for autoantibodies in autoimmune and cancer diseases. Analytical Methods, 2019, 11, 871-887.	2.7	27
50	Magnetic Janus Particles for Static and Dynamic (Bio)Sensing. Magnetochemistry, 2019, 5, 47.	2.4	26
51	A novel zinc finger proteinâ€“based amperometric biosensor for miRNA determination. Analytical and Bioanalytical Chemistry, 2020, 412, 5031-5041.	3.7	26
52	A novel peptide-based electrochemical biosensor for the determination of a metastasis-linked protease in pancreatic cancer cells. Analytical and Bioanalytical Chemistry, 2020, 412, 6177-6188.	3.7	26
53	Enlightening the advancements in electrochemical bioanalysis for the diagnosis of Alzheimerâ€™s disease and other neurodegenerative disorders. Journal of Pharmaceutical and Biomedical Analysis, 2020, 189, 113437.	2.8	25
54	Disposable Amperometric Immunosensor for the Determination of Human P53 Protein in Cell Lysates Using Magnetic Micro-Carriers. Biosensors, 2016, 6, 56.	4.7	24

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55	Highly selective biosensing of lactate at lactate oxidase containing rhodium-dispersed carbon paste electrodes. Analytica Chimica Acta, 1995, 304, 41-46.	5.4	23
56	Disposable Electrochemical Magnetoimmunosensor for the Determination of Troponin T Cardiac Marker. Electroanalysis, 2013, 25, 51-58.	2.9	23
57	Magnetic beads-based electrochemical immunosensing of HIF-1Î±, a biomarker of tumoral hypoxia. Sensors and Actuators B: Chemical, 2020, 307, 127623.	7.8	23
58	Polarographic study of simazine in micellar and emulsified media. Analytica Chimica Acta, 1993, 273, 343-349.	5.4	22
59	Development of an Amperometric Immunosensor for the Quantification of Staphylococcus aureus Using Self-Assembled Monolayer-Modified Electrodes as Immobilization Platforms. Electroanalysis, 2007, 19, 1476-1482.	2.9	22
60	Ultrasensitive detection of coliforms by means of direct asymmetric PCR combined with disposable magnetic amperometric genosensors. Analyst, The, 2009, 134, 34-37.	3.5	22
61	Electrochemical sensor for rapid determination of fibroblast growth factor receptor 4 in raw cancer cell lysates. PLoS ONE, 2017, 12, e0175056.	2.5	22
62	Determination of methoprotryne and terbutryn by adsorptive stripping voltammetry on the hanging mercury drop electrode. Analyst, The, 1993, 118, 1405-1410.	3.5	21
63	Metal-dispersed screen-printed carbon electrodes. Electroanalysis, 1995, 7, 1032-1034.	2.9	21
64	Voltammetric Determination of Antibacterial Nitro-Compounds at Activated Carbon Fibre Microelectrodes. Electroanalysis, 2004, 16, 1763-1770.	2.9	21
65	Electrochemical (Bio)sensing of Clinical Markers Using Quantum Dots. Electroanalysis, 2017, 29, 24-37.	2.9	21
66	Opportunities, Challenges, and Prospects in Electrochemical Biosensing of Circulating Tumor DNA and its Specific Features. Sensors, 2019, 19, 3762.	3.8	21
67	Palladium-doped screen-printed electrodes for monitoring formaldehyde. Analyst, The, 1995, 120, 1969.	3.5	20
68	Design and fabrication of a <scp>COP</scp>â€based microfluidic chip: Chronoamperometric detection of <scp>T</scp>roponin <scp>T</scp>. Electrophoresis, 2012, 33, 3187-3194.	2.4	19
69	Nanostructured rough gold electrodes as platforms to enhance the sensitivity of electrochemical genosensors. Analytica Chimica Acta, 2013, 788, 141-147.	5.4	18
70	Clinical evaluation of a disposable amperometric magneto-genosensor for the detection and identification of Streptococcus pneumoniae. Journal of Microbiological Methods, 2014, 103, 25-28.	1.6	17
71	Electrochemical biosensing to move forward in cancer epigenetics and metastasis: A review. Analytica Chimica Acta, 2020, 1109, 169-190.	5.4	17
72	Graphite-teflon-tyrosinase composite electrodes for the monitoring of phenolic compounds in predominantly non aqueous media. Analusis - European Journal of Analytical Chemistry, 1999, 27, 592-599.	0.4	17

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73	Viral protein-based bioanalytical tools for small RNA biosensing. TrAC - Trends in Analytical Chemistry, 2016, 79, 335-343.	11.4	16
74	Electrochemical Nucleic Acid-Based Biosensing of Drugs of Abuse and Pharmaceuticals. Current Medicinal Chemistry, 2018, 25, 4102-4118.	2.4	16
75	Amperometric DNA quantification based on the use of peroxidase-mercaptopropionic acid-modified gold electrodes. Sensors and Actuators B: Chemical, 2008, 132, 250-257.	7.8	14
76	Magnetic microbeads-based amperometric immunoplatform for the rapid and sensitive detection of N6-methyladenosine to assist in metastatic cancer cells discrimination. Biosensors and Bioelectronics, 2021, 171, 112708.	10.1	14
77	Determination of Dinoseb by adsorptive stripping voltammetry. Electroanalysis, 1991, 3, 419-422.	2.9	13
78	Dextran-coated nanoparticles as immunosensing platforms: Consideration of polyaldehyde density, nanoparticle size and functionality. Talanta, 2022, 247, 123549.	5.5	13
79	Development of amperometric biosensors using thiolated tetrathiafulvalene-derivatised self-assembled monolayer modified electrodes. Sensors and Actuators B: Chemical, 2008, 134, 974-980.	7.8	12
80	Advances in Electrochemical (Bio)Sensing Targeting Epigenetic Modifications of Nucleic Acids. Electroanalysis, 2019, 31, 1816-1832.	2.9	12
81	Disposable Amperometric Immunosensor for the Determination of the Eâ€Cadherin Tumor Suppressor Protein in Cancer Cells and Human Tissues. Electroanalysis, 2019, 31, 309-317.	2.9	12
82	Adsorptive stripping voltammetry in dispersed media. Application to the determination of the herbicide terbutryn. Electroanalysis, 1995, 7, 644-648.	2.9	11
83	A Lactulose Bienzyme Biosensor Based on Self-Assembled Monolayer Modified Electrodes. Electroanalysis, 2004, 16, 1385-1392.	2.9	11
84	Anticipating metastasis through electrochemical immunosensing of tumor hypoxia biomarkers. Analytical and Bioanalytical Chemistry, 2022, 414, 399-412.	3.7	11
85	Electrochemical Immunosensing of ST2: A Checkpoint Target in Cancer Diseases. Biosensors, 2021, 11, 202.	4.7	11
86	Carbon fiber cylindrical microelectrode-based detector for the determination of antithyroid drugs. Talanta, 2002, 56, 577-584.	5.5	10
87	Voltametric and Flow Injection Determination of Oxytetracycline Residues in Food Samples Using Carbon Fiber Microelectrodes. Electroanalysis, 2003, 15, 601-607.	2.9	10
88	Rapid endoglin determination in serum samples using an amperometric magneto-actuated disposable immunosensing platform. Journal of Pharmaceutical and Biomedical Analysis, 2016, 129, 288-293.	2.8	10
89	Dual Amperometric Immunosensor for Improving Cancer Metastasis Detection by the Simultaneous Determination of Extracellular and Soluble Circulating Fraction of Emerging Metastatic Biomarkers. Electroanalysis, 2020, 32, 706-714.	2.9	10
90	Multiplexed magnetic beads-assisted amperometric bioplatforms for global detection of methylations in nucleic acids. Analytica Chimica Acta, 2021, 1182, 338946.	5.4	10

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91	Empowering Electrochemical Biosensing through Nanostructured or Multifunctional Nucleic Acid or Peptide Biomaterials. Advanced Materials Technologies, 2022, 7, .	5.8	10
92	Determination of the herbicide desmetryne in organised media by adsorptive stripping voltammetry. Talanta, 2001, 53, 991-1000.	5.5	9
93	Ruthenium and ruthenium dioxide-modified graphiteâ€“ethylene/propylene/diene and graphiteâ€“Teflon composite electrodes as amperometric flow detectors. Application to the determination of methionine. Fresenius' Journal of Analytical Chemistry, 2001, 371, 507-513.	1.5	8
94	Tetrathiafulvalene thiolated derivatives self-assembled monolayers as platforms for the construction of electrochemical biosensors. Electrochemistry Communications, 2006, 8, 299-304.	4.7	8
95	Determination of dinoseb by adsorptive stripping voltammetry using a mercury film electrode. Fresenius' Journal of Analytical Chemistry, 1994, 349, 546-551.	1.5	7
96	Voltammetric Determination of Methylthiouracil in Animal Feed Using Carbon Fiber Microelectrodes. Electroanalysis, 2001, 13, 1301-1304.	2.9	6
97	Amperometric magnetoimmunoassay for the determination of lipoprotein(a). Mikrochimica Acta, 2015, 182, 1457-1464.	5.0	6
98	Determination of the pKa values for polycationic species derived from 9-hydroxy and 9-aminothiazolo[5,4-b]quinolines. A problem related to the tautomerism of these systems. Tetrahedron, 1996, 52, 11929-11946.	1.9	5
99	Determination of Disulfiram by Adsorptive Stripping Voltammetry at Gold Disk Microelectrodes. Electroanalysis, 2002, 14, 486-492.	2.9	5
100	Lipoprotein(a) determination in human serum using a nitrilotriacetic acid derivative immunosensing scaffold on disposable electrodes. Analytical and Bioanalytical Chemistry, 2014, 406, 5379-5387.	3.7	5
101	Hybrid Metallic Nanoparticles: Enhanced Bioanalysis and Biosensing via Carbon Nanotubes, Graphene, and Organic Conjugation. , 2015, , 137-166.		5
102	Electrocatalytic (bio)platforms for the determination of tetracyclines. Journal of Solid State Electrochemistry, 2021, 25, 3-13.	2.5	5
103	Graphite-Ethylene/Propylene/Diene Terpolymer Composite Electrodes. A New Electrode Material for Electrochemical Detection. Electroanalysis, 1999, 11, 161-166.	2.9	4
104	Oil-in-water emulsions as suitable working media for the direct polarographic determination of aziprotryne and desmetryne from its organic extracts in water samples. Fresenius' Journal of Analytical Chemistry, 2000, 367, 454-460.	1.5	4
105	Easily Multiplexable Immunoplatform to Assist Heart Failure Diagnosis through Amperometric Determination of Galectinâ€3. Electroanalysis, 2020, 32, 2775-2785.	2.9	4
106	Electrochemical immunosensing of Growth arrestâ€specific 6 in human plasma and tumor cell secretomes. Electrochemical Science Advances, 2022, 2, e2100096.	2.8	4
107	Electrochemical Nucleic Acid-Based Strategies for miRNAs Determination. Comprehensive Analytical Chemistry, 2017, 77, 179-205.	1.3	3
108	Biosensing and Delivery of Nucleic Acids Involving Selected Well-Known and Rising Star Functional Nanomaterials. Nanomaterials, 2019, 9, 1614.	4.1	2

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109	Contemporary electrochemical sensing and affinity biosensing to assist traces metal ions determination in clinical samples. Electrochemical Science Advances, 2022, 2, e2100144.	2.8	1
110	Carbon-Polymer Bio-Nano-Composite Electrodes for Electrochemical Genosensing MarÄ±Â´a Isabel Pividori and Salvador Alegret. , 2012, , 75-120.		0
111	Amperometric Immunosensing Scaffolds for Rapid, Simple, Non-Invasive and Accurate Determination of Protein Biomarkers of Well-Accepted and Emerging Clinical Importance. Proceedings (mdpi), 2017, 1, 727.	0.2	0
112	Electrochemical Biosensing of Pathogen Micro-Organisms. NATO Science for Peace and Security Series A: Chemistry and Biology, 2012, , 119-137.	0.5	0
113	Oligonucleotide and DNA Microarrays as Versatile Tools for Rapid Diagnostics. Series in Sensors, 2013, , 571-604.	0.0	0