Maria Cuartero

List of Publications by Year
in descending order

87 papers	2,913 citations	147801 31 h-index	189892 50 g-index
88 all docs	88 docs citations	88 times ranked	2584 citing authors

#	Article	IF	Citations
1	Wearable potentiometric ion sensors. TrAC - Trends in Analytical Chemistry, 2019, 110, 303-320.	11.4	211
2	All-Solid-State Potentiometric Sensors with a Multiwalled Carbon Nanotube Inner Transducing Layer for Anion Detection in Environmental Samples. Analytical Chemistry, 2015, 87, 8640-8645.	6.5	130
3	Wearable All-Solid-State Potentiometric Microneedle Patch for Intradermal Potassium Detection. Analytical Chemistry, 2019, 91, 1578-1586.	6.5	116
4	Epidermal Patch with Glucose Biosensor: pH and Temperature Correction toward More Accurate Sweat Analysis during Sport Practice. Analytical Chemistry, 2020, 92, 10153-10161.	6.5	116
5	Efficient BiVO₄ Photoanodes by Postsynthetic Treatment: Remarkable Improvements in Photoelectrochemical Performance from Facile Borate Modification. Angewandte Chemie - International Edition, 2019, 58, 19027-19033.	13.8	108
6	All-solid-state potentiometric sensors: A new wave for in situ aquatic research. Current Opinion in Electrochemistry, 2018, 10, 98-106.	4.8	101
7	Wearable Potentiometric Sensors for Medical Applications. Sensors, 2019, 19, 363.	3.8	100
8	Lactate Biosensing for Reliable On-Body Sweat Analysis. ACS Sensors, 2021, 6, 2763-2771.	7.8	98
9	Wearable Potentiometric Ion Patch for On-Body Electrolyte Monitoring in Sweat: Toward a Validation Strategy to Ensure Physiological Relevance. Analytical Chemistry, 2019, 91, 8644-8651.	6.5	93
10	Paper-Based Thin-Layer Coulometric Sensor for Halide Determination. Analytical Chemistry, 2015, 87, 1981-1990.	6.5	82
11	Thin Layer Ionophore-Based Membrane for Multianalyte Ion Activity Detection. Analytical Chemistry, 2015, 87, 7729-7737.	6.5	78
12	Modern creatinine (Bio)sensing: Challenges of point-of-care platforms. Biosensors and Bioelectronics, 2019, 130, 110-124.	10.1	74
13	In Situ Detection of Species Relevant to the Carbon Cycle in Seawater with Submersible Potentiometric Probes. Environmental Science and Technology Letters, 2017, 4, 410-415.	8.7	59
14	In Situ Detection of Macronutrients and Chloride in Seawater by Submersible Electrochemical Sensors. Analytical Chemistry, 2018, 90, 4702-4710.	6.5	59
15	Ionophore-Based Voltammetric Ion Activity Sensing with Thin Layer Membranes. Analytical Chemistry, 2016, 88, 1654-1660.	6.5	57
16	Magnetizing lead-free halide double perovskites. Science Advances, 2020, 6, .	10.3	56
17	Microneedle based electrochemical (Bio)Sensing: Towards decentralized and continuous health status monitoring. TrAC - Trends in Analytical Chemistry, 2021, 135, 116148.	11.4	54
18	Polyurethane Ionophore-Based Thin Layer Membranes for Voltammetric Ion Activity Sensing. Analytical Chemistry, 2016, 88, 5649-5654.	6.5	53

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19	Tandem Electrochemical Desalinationâ€“Potentiometric Nitrate Sensing for Seawater Analysis. Analytical Chemistry, 2015, 87, 8084-8089.	6.5	47
20	Can Wearable Sweat Lactate Sensors Contribute to Sports Physiology?. ACS Sensors, 2021, 6, 3496-3508.	7.8	45
21	Toward In Vivo Transdermal pH Sensing with a Validated Microneedle Membrane Electrode. ACS Sensors, 2021, 6, 1129-1137.	7.8	43
22	Colorimetric Readout for Potentiometric Sensors with Closed Bipolar Electrodes. Analytical Chemistry, 2018, 90, 6376-6379.	6.5	41
23	In-Line Acidification for Potentiometric Sensing of Nitrite in Natural Waters. Analytical Chemistry, 2017, 89, 571-575.	6.5	39
24	Voltammetric Thin-Layer Ionophore-Based Films: Part 1. Experimental Evidence and Numerical Simulations. Analytical Chemistry, 2017, 89, 586-594.	6.5	39
25	Why ammonium detection is particularly challenging but insightful with ionophore-based potentiometric sensors â€“ an overview of the progress in the last 20 years. Analyst, The, 2020, 145, 3188-3210.	3.5	39
26	Electrochemical Mechanism of Ferrocene-Based Redox Molecules in Thin Film Membrane Electrodes. Electrochimica Acta, 2017, 238, 357-367.	5.2	36
27	Environmental water analysis with membrane electrodes. Current Opinion in Electrochemistry, 2017, 3, 97-105.	4.8	36
28	Efficient BiVO₄ Photoanodes by Postsynthetic Treatment: Remarkable Improvements in Photoelectrochemical Performance from Facile Borate Modification. Angewandte Chemie, 2019, 131, 19203-19209.	2.0	35
29	Cytotoxicity Study of Ionophore-Based Membranes: Toward On-Body and in Vivo Ion Sensing. ACS Sensors, 2019, 4, 2524-2535.	7.8	35
30	Rubber-based substrates modified with carbon nanotubes inks to build flexible electrochemical sensors. Analytica Chimica Acta, 2014, 827, 95-102.	5.4	33
31	Evidence of double layer/capacitive charging in carbon nanomaterial-based solid contact polymeric ion-selective electrodes. Chemical Communications, 2016, 52, 9703-9706.	4.1	33
32	Assay of acetylcholinesterase activity by potentiometric monitoring of acetylcholine. Analytical Biochemistry, 2012, 421, 208-212.	2.4	32
33	Terminal carbohydrates abundance, immune related enzymes, bactericidal activity and physico-chemical parameters of the Senegalese sole (Solea senegalensis, Kaup) skin mucus. Fish and Shellfish Immunology, 2017, 60, 483-491.	3.6	32
34	Exhaustive Thin-Layer Cyclic Voltammetry for Absolute Multianalyte Halide Detection. Analytical Chemistry, 2014, 86, 11387-11395.	6.5	31
35	Lightâ€Addressable Ion Sensing for Realâ€Time Monitoring of Extracellular Potassium. Angewandte Chemie - International Edition, 2018, 57, 16801-16805.	13.8	31
36	Electrochemical sensors for in-situ measurement of ions in seawater. Sensors and Actuators B: Chemical, 2021, 334, 129635.	7.8	31

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37	Fluorinated tripodal receptors for potentiometric chloride detection in biological fluids. Biosensors and Bioelectronics, 2018, 99, 70-76.	10.1	29
38	Electrochemical Ion Transfer with Thin Films of Poly(3-octylthiophene). Analytical Chemistry, 2016, 88, 6939-6946.	6.5	27
39	Ferrocene self assembled monolayer as a redox mediator for triggering ion transfer across nanometer-sized membranes. Electrochimica Acta, 2019, 315, 84-93.	5.2	26
40	Voltammetric behaviour and square-wave voltammetric determination of the potent antioxidant and anticarcinogenic agent ellagic acid in foodstuffs. Food Chemistry, 2011, 128, 549-554.	8.2	24
41	Thin-Layer Potentiometry for Creatinine Detection in Undiluted Human Urine Using Ion-Exchange Membranes as Barriers for Charged Interferences. Analytical Chemistry, 2020, 92, 3315-3323.	6.5	22
42	Molybdenum and boron synergistically boosting efficient electrochemical nitrogen fixation. Nano Energy, 2020, 78, 105391.	16.0	21
43	Benzodipyrrole derivates as new ionophores for anion-selective electrodes: Improving potentiometric selectivity towards divalent anions. Talanta, 2011, 85, 1876-1881.	5.5	20
44	Description and comparative study of physico-chemical parameters of the teleost fish skin mucus. Biorheology, 2015, 52, 247-256.	0.4	20
45	Electrochemical biosensor for glycine detection in biological fluids. Biosensors and Bioelectronics, 2021, 182, 113154.	10.1	20
46	Voltammetric Thin-Layer Ionophore-Based Films: Part 2. Semi-Empirical Treatment. Analytical Chemistry, 2017, 89, 595-602.	6.5	19
47	Electrochemical ion transfer mediated by a lipophilic Os(<scp>ii</scp>)/Os(<scp>iii</scp>) dinonyl bipyridyl probe incorporated in thin film membranes. Chemical Communications, 2017, 53, 10757-10760.	4.1	19
48	Electrochemical detection of trace silver. Electrochimica Acta, 2021, 374, 137929.	5.2	19
49	Novel flow-through bulk optode for spectrophotometric determination of lithium in pharmaceuticals and saliva. Sensors and Actuators B: Chemical, 2010, 145, 133-138.	7.8	18
50	Thin Layer Samples Controlled by Dynamic Electrochemistry. Chimia, 2015, 69, 203.	0.6	18
51	Polyaniline Films as Electrochemical-Proton Pump for Acidification of Thin Layer Samples. Analytical Chemistry, 2019, 91, 14951-14959.	6.5	18
52	In-Line Seawater Phosphate Detection with Ion-Exchange Membrane Reagent Delivery. ACS Sensors, 2018, 3, 2455-2462.	7.8	17
53	Lowering the limit of detection of ion-selective membranes backside contacted with a film of poly(3-octylthiophene). Sensors and Actuators B: Chemical, 2019, 297, 126781.	7.8	17
54	New approach for the potentiometric-enzymatic assay of reversible-competitive enzyme inhibitors. Application to acetylcholinesterase inhibitor galantamine and its determination in pharmaceuticals and human urine. Talanta, 2013, 110, 8-14.	5.5	15

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55	New Potentiometric Electronic Tongue for Analysing Teas and Infusions. Electroanalysis, 2015, 27, 782-788.	2.9	14
56	Selective electrochemical hydrogen evolution on cerium oxide protected catalyst surfaces. Electrochimica Acta, 2020, 341, 136022.	5.2	13
57	Subnanomolar detection of ions using thin voltammetric membranes with reduced Exchange capacity. Sensors and Actuators B: Chemical, 2020, 321, 128453.	7.8	13
58	Potentiometric pH Nanosensor for Intracellular Measurements: Real-Time and Continuous Assessment of Local Gradients. Analytical Chemistry, 2021, 93, 15744-15751.	6.5	13
59	Selective Hydrogen Evolution on Manganese Oxide Coated Electrodes: New Cathodes for Sodium Chlorate Production. ACS Sustainable Chemistry and Engineering, 2019, 7, 12170-12178.	6.7	12
60	Response of an ion-selective electrode to butylmethylimidazolium and other ionic liquid cations. Applications in toxicological and bioremediation studies. Electrochimica Acta, 2010, 55, 5598-5603.	5.2	11
61	New carbazolo[1,2-a]carbazole derivative as ionophore for anion-selective electrodes: Remarkable recognition towards dicarboxylate anions. Talanta, 2014, 123, 200-206.	5.5	11
62	Application of a trazodone-selective electrode to pharmaceutical quality control and urine analyses. Analytical and Bioanalytical Chemistry, 2009, 394, 1563-1567.	3.7	10
63	A SO2-selective electrode based on a Zn-porphyrin for wine analysis. Analytica Chimica Acta, 2013, 787, 57-63.	5.4	10
64	Multianalyte detection using potentiometric ionophore-based ion-selective electrodes. Sensors and Actuators B: Chemical, 2017, 243, 144-151.	7.8	10
65	Capturing the Real-Time Hydrolytic Degradation of a Library of Biomedical Polymers by Combining Traditional Assessment and Electrochemical Sensors. Biomacromolecules, 2021, 22, 949-960.	5.4	10
66	Reagentless Acidâ€“Base Titration for Alkalinity Detection in Seawater. Analytical Chemistry, 2021, 93, 14130-14137.	6.5	10
67	Comparative enzymatic studies using ion-selective electrodes. The case of cholinesterases. Talanta, 2018, 180, 316-322.	5.5	9
68	Why Not Glycine Electrochemical Biosensors?. Sensors, 2020, 20, 4049.	3.8	9
69	Anodic Stripping Voltammetry with the Hanging Mercury Drop Electrode for Trace Metal Detection in Soil Samples. Chemosensors, 2021, 9, 107.	3.6	9
70	Differential dynamic potentiometry with ion selective electrodes: A tool for drug fingerprinting. Electrochimica Acta, 2012, 69, 152-159.	5.2	8
71	Differential dynamic potentiometric responses obtained with anion-selective electrodes for perchlorate, thiocyanate, iodide, nitrate, sulfate, picrate and bis(trifluoromethylsulfonyl) imide. Electrochimica Acta, 2013, 93, 272-278.	5.2	8
72	A sustainable amperometric biosensor for the analysis of ascorbic, benzoic, gallic and kojic acids through catechol detection. Innovation and signal processing. Analyst, The, 2020, 145, 3645-3655.	3.5	8

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73	Using Potentiometric Electrodes Based on Nonselective Polymeric Membranes as Potential Universal Detectors for Ion Chromatography: Investigating an Original Research Problem from an Inquiry-Based-Learning Perspective. Journal of Chemical Education, 2018, 95, 2172-2181.	2.3	7
74	Spectroelectrochemical Evidence of Interconnected Charge and Ion Transfer in Ultrathin Membranes Modulated by a Redox Conducting Polymer. Analytical Chemistry, 2020, 92, 14085-14093.	6.5	7
75	Semi-empirical treatment of ionophore-assisted ion-transfers in ultrathin membranes coupled to a redox conducting polymer. Electrochimica Acta, 2021, 388, 138634.	5.2	6
76	Use of a New Ziprasidone-Selective Electrode in Mixed Solvents and Its Application in the Analysis of Pharmaceuticals and Biological Fluids. Sensors, 2011, 11, 8813-8825.	3.8	5
77	Ion-selective electrodes for the determination of l-carnitine. Application in dissolution testing of a dietary supplement. Monatshefte FÃ¼r Chemie, 2014, 145, 1879-1885.	1.8	4
78	Binding studies and anion-selective electrodes with neutral isophthalamide-based receptors. Analyst, The, 2015, 140, 287-294.	3.5	3
79	Lightâ€Addressable Ion Sensing for Realâ€Time Monitoring of Extracellular Potassium. Angewandte Chemie, 2018, 130, 17043-17047.	2.0	3
80	A Micro-Coated Wire Ion-Selective Electrode for Flow-Injection Analysis of Trazodone in Pharmaceuticals, Human Urine and Serum. Sensor Letters, 2009, 7, 615-620.	0.4	3
81	Modelling electrochemical modulation of ion release in thin-layer samples. Journal of Electroanalytical Chemistry, 2021, 903, 115851.	3.8	3
82	Addressing the Detection of Ammonium Ion in Environmental Water Samples via Tandem Potentiometryâ€“Ion Chromatography. ACS Measurement Science Au, 2022, 2, 199-207.	4.4	3
83	Ultrathin ion-selective membranes for trace detection of lead, copper and silver ions. Electrochimica Acta, 2022, 427, 140870.	5.2	3
84	Electron Hopping between Fe 3â€‰d States in Ethynylferroceneâ€doped Poly(Methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (M	2.9	2
85	Spectroelectrochemistry with Ultrathin Ion-Selective Membranes: Three Distinct Ranges for Analytical Sensing. Analytical Chemistry, 2022, 94, 9140-9148.	6.5	2
86	Environmental Sensing of Aquatic Systems at the University of Geneva. Chimia, 2014, 68, 772-777.	0.6	1
87	Selective Ion Capturing via Carbon Nanotubes Charging. Analytical Chemistry, 2022, , .	6.5	1