

Netzahualcōyotl Arroyo-Currás

List of Publications by Year in descending order

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71
papers

2,495
citations

218592

26
h-index

214721

47
g-index

75
all docs

75
docs citations

75
times ranked

2457
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-time measurement of small molecules directly in awake, ambulatory animals. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 645-650.	3.3	302
2	Electrochemical Aptamer-Based Sensors for Improved Therapeutic Drug Monitoring and High-Precision, Feedback-Controlled Drug Delivery. ACS Sensors, 2019, 4, 2832-2837.	4.0	142
3	Electrocatalytic Activity of Individual Pt Nanoparticles Studied by Nanoscale Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2016, 138, 8560-8568.	6.6	127
4	Dual-Reporter Drift Correction To Enhance the Performance of Electrochemical Aptamer-Based Sensors in Whole Blood. Journal of the American Chemical Society, 2016, 138, 15809-15812.	6.6	115
5	A Biomimetic Phosphatidylcholineâ€Terminated Monolayer Greatly Improves the In Vivo Performance of Electrochemical Aptamerâ€Based Sensors. Angewandte Chemie - International Edition, 2017, 56, 7492-7495.	7.2	112
6	Subsecond-Resolved Molecular Measurements in the Living Body Using Chronoamperometrically Interrogated Aptamer-Based Sensors. ACS Sensors, 2018, 3, 360-366.	4.0	98
7	High Surface Area Electrodes Generated via Electrochemical Roughening Improve the Signaling of Electrochemical Aptamer-Based Biosensors. Analytical Chemistry, 2017, 89, 12185-12191.	3.2	92
8	Seconds-resolved pharmacokinetic measurements of the chemotherapeutic irinotecan <i>in situ</i> in the living body. Chemical Science, 2019, 10, 8164-8170.	3.7	74
9	From the beaker to the body: translational challenges for electrochemical, aptamer-based sensors. Analytical Methods, 2020, 12, 1288-1310.	1.3	72
10	Biodegradable electroactive polymers for electrochemically-triggered drug delivery. Journal of Materials Chemistry B, 2014, 2, 6809-6822.	2.9	68
11	Critical Reviewâ€Approaches for the Electrochemical Interrogation of DNA-Based Sensors: A Critical Review. Journal of the Electrochemical Society, 2020, 167, 037529.	1.3	68
12	Microneedle Aptamer-Based Sensors for Continuous, Real-Time Therapeutic Drug Monitoring. Analytical Chemistry, 2022, 94, 8335-8345.	3.2	68
13	High-Precision Control of Plasma Drug Levels Using Feedback-Controlled Dosing. ACS Pharmacology and Translational Science, 2018, 1, 110-118.	2.5	62
14	Real-Time Monitoring of a Protein Biomarker. ACS Sensors, 2020, 5, 1877-1881.	4.0	60
15	Alkanethiol Monolayer End Groups Affect the Long-Term Operational Stability and Signaling of Electrochemical, Aptamer-Based Sensors in Biological Fluids. ACS Applied Materials & Interfaces, 2020, 12, 11214-11223.	4.0	56
16	Simulation-Based Approach to Determining Electron Transfer Rates Using Square-Wave Voltammetry. Langmuir, 2017, 33, 4407-4413.	1.6	50
17	An Alkaline Flow Battery Based on the Coordination Chemistry of Iron and Cobalt. Journal of the Electrochemical Society, 2015, 162, A378-A383.	1.3	46
18	Nanometer Scale Scanning Electrochemical Microscopy Instrumentation. Analytical Chemistry, 2016, 88, 10284-10289.	3.2	45

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19	Stabilization of amorphous paracetamol based systems using traditional and novel strategies. <i>International Journal of Pharmaceutics</i> , 2014, 477, 294-305.	2.6	42
20	Iridium Oxidation as Observed by Surface Interrogation Scanning Electrochemical Microscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 8147-8154.	1.5	42
21	High-Precision Electrochemical Measurements of the Guanine-, Mismatch-, and Length-Dependence of Electron Transfer from Electrode-Bound DNA Are Consistent with a Contact-Mediated Mechanism. <i>Journal of the American Chemical Society</i> , 2019, 141, 1304-1311.	6.6	42
22	Detection of the SARS-CoV-2 spike protein in saliva with Shrinky-Dink [®] electrodes. <i>Analytical Methods</i> , 2021, 13, 874-883.	1.3	36
23	Interrogation of Electrochemical Aptamer-Based Sensors via Peak-to-Peak Separation in Cyclic Voltammetry Improves the Temporal Stability and Batch-to-Batch Variability in Biological Fluids. <i>ACS Sensors</i> , 2021, 6, 1199-1207.	4.0	35
24	Open Source Software for the Real-Time Control, Processing, and Visualization of High-Volume Electrochemical Data. <i>Analytical Chemistry</i> , 2019, 91, 12321-12328.	3.2	33
25	Co-Amorphous Simvastatin-Nifedipine with Enhanced Solubility for Possible Use in Combination Therapy of Hypertension and Hypercholesterolemia. <i>Molecules</i> , 2018, 23, 2161.	1.7	32
26	Ultra-High-Precision, in-vivo Pharmacokinetic Measurements Highlight the Need for and a Route Toward More Highly Personalized Medicine. <i>Frontiers in Molecular Biosciences</i> , 2019, 6, 69.	1.6	28
27	The challenge of long-term stability for nucleic acid-based electrochemical sensors. <i>Current Opinion in Electrochemistry</i> , 2022, 32, 100902.	2.5	28
28	E-DNA scaffold sensors and the reagentless, single-step, measurement of HIV-diagnostic antibodies in human serum. <i>Microsystems and Nanoengineering</i> , 2020, 6, 13.	3.4	27
29	Long-Term Stability of New Co-Amorphous Drug Binary Systems: Study of Glass Transitions as a Function of Composition and Shelf Time. <i>Molecules</i> , 2016, 21, 1712.	1.7	26
30	Chain Dynamics Limit Electron Transfer from Electrode-Bound, Single-Stranded Oligonucleotides. <i>Journal of Physical Chemistry C</i> , 2018, 122, 21441-21448.	1.5	25
31	Nuclease Hydrolysis Does Not Drive the Rapid Signaling Decay of DNA Aptamer-Based Electrochemical Sensors in Biological Fluids. <i>Langmuir</i> , 2021, 37, 5213-5221.	1.6	25
32	Electrochemical Monitoring of TiO ₂ Atomic Layer Deposition by Chronoamperometry and Scanning Electrochemical Microscopy. <i>Chemistry of Materials</i> , 2013, 25, 4165-4172.	3.2	24
33	Two-phase amorphous-amorphous solid drug dispersion with enhanced stability, solubility and bioavailability resulting from ultrasonic dispersion of an immiscible system. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2017, 119, 243-252.	2.0	24
34	Highly Soluble Glimpiride and Irbesartan Co-amorphous Formulation with Potential Application in Combination Therapy. <i>AAPS PharmSciTech</i> , 2019, 20, 144.	1.5	23
35	Achieving Nanometer Scale Tip-to-Substrate Gaps with Micrometer-Size Ultramicroelectrodes in Scanning Electrochemical Microscopy. <i>Analytical Chemistry</i> , 2011, 83, 9082-9085.	3.2	22
36	Nickel-Based Electrocatalysts for Water Electrolysis. <i>Energies</i> , 2022, 15, 1609.	1.6	21

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37	Substituent Inductive Effects on the Electrochemical Oxidation of Flavonoids Studied by Square Wave Voltammetry and Ab Initio Calculations. <i>Molecules</i> , 2016, 21, 1422.	1.7	20
38	Black bean extract ameliorates liver fibrosis in rats with CCl ₄ -induced injury. <i>Annals of Hepatology</i> , 2008, 7, 130-135.	0.6	19
39	Application of ATR-FTIR spectroscopy to the study of thermally induced changes in secondary structure of protein molecules in solid state. <i>Biopolymers</i> , 2015, 103, 574-584.	1.2	18
40	Modeling Faradaic Reactions and Electrokinetic Phenomena at a Nanochannel-Confined Bipolar Electrode. <i>Journal of Physical Chemistry C</i> , 2019, 123, 5353-5364.	1.5	18
41	A Biomimetic Phosphatidylcholine-Terminated Monolayer Greatly Improves the In Vivo Performance of Electrochemical Aptamer-Based Sensors. <i>Angewandte Chemie</i> , 2017, 129, 7600-7603.	1.6	17
42	Fluorescence-Based Observation of Transient Electrochemical and Electrokinetic Effects at Nanoconfined Bipolar Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 13777-13786.	4.0	17
43	An electrochemical biosensor exploiting binding-induced changes in electron transfer of electrode-attached DNA origami to detect hundred nanometer-scale targets. <i>Nanoscale</i> , 2020, 12, 13907-13911.	2.8	16
44	Advances in nucleic acid architectures for electrochemical sensing. <i>Current Opinion in Electrochemistry</i> , 2021, 27, 100695.	2.5	15
45	Pt-Co ₃ O ₄ Superstructures by One-Pot Reduction/Precipitation in Bicontinuous Microemulsion for Electrocatalytic Oxygen Evolution Reaction. <i>Catalysts</i> , 2020, 10, 1311.	1.6	14
46	Chemical Equilibrium-Based Mechanism for the Electrochemical Reduction of DNA-Bound Methylene Blue Explains Double Redox Waves in Voltammetry. <i>Journal of Physical Chemistry C</i> , 2021, 125, 9038-9049.	1.5	14
47	Electrochemical Aptamer-Based Sensors: A Platform Approach to High-Frequency Molecular Monitoring In Situ in the Living Body. <i>Methods in Molecular Biology</i> , 2022, 2393, 479-492.	0.4	13
48	Antibody-Invertase Fusion Protein Enables Quantitative Detection of SARS-CoV-2 Antibodies Using Widely Available Glucometers. <i>Journal of the American Chemical Society</i> , 2022, 144, 11226-11237.	6.6	13
49	Hot-SWV: Square Wave Voltammetry with Hot Microelectrodes. <i>Analytical Chemistry</i> , 2020, 92, 8852-8858.	3.2	12
50	Study of surface modification strategies to create glassy carbon-supported, aptamer-based sensors for continuous molecular monitoring. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 5627-5641.	1.9	11
51	Green synthesis of starch-capped Cu ₂ O nanocubes and their application in the direct electrochemical detection of glucose. <i>RSC Advances</i> , 2021, 11, 13711-13721.	1.7	10
52	Surface Attachment Enhances the Thermodynamic Stability of Protein...L. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1714-1718.	7.2	8
53	Understanding Disorder in 2D Materials: The Case of Carbon Doping of Silicene. <i>Nano Letters</i> , 2020, 20, 6336-6343.	4.5	8
54	Nanoscale Bioreceptor Layers Comprising Carboxylated Polythiophene for Organic Electrochemical Transistor-Based Biosensors. <i>ACS Applied Nano Materials</i> , 2021, 4, 13459-13468.	2.4	8

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55	Chemical characteristics of the products of the complexation reaction between copper(II) and a tetra-aza macrocycle in the presence of chloride ions. <i>Journal of Coordination Chemistry</i> , 2015, 68, 2810-2826.	0.8	7
56	Electrochemical Study of Flavonoids in Acetonitrile: Structure-Activity Relationships. <i>ECS Transactions</i> , 2010, 29, 349-359.	0.3	5
57	Time and cost efficient biodegradation of diesel in a continuous upflow packed bed biofilm reactor and effect of surfactant GAELE. <i>Journal of Chemical Technology and Biotechnology</i> , 2012, 87, 1131-1140.	1.6	5
58	Black bean extract ameliorates liver fibrosis in rats with CCl4-induced injury. <i>Annals of Hepatology</i> , 2008, 7, 130-5.	0.6	5
59	Effects of bone marrow cell transplant on thyroid function in an I131-induced low T4 and elevated TSH rat model. <i>Journal of Negative Results in BioMedicine</i> , 2007, 6, 1.	1.4	4
60	Nano and micro dispersions of two-phase amorphous-amorphous drug formulations as strategy to enhance solubility of pharmaceuticals. <i>Materials Today: Proceedings</i> , 2019, 13, 390-396.	0.9	3
61	Electropolishing and anodization of titanium in water/ethylene glycol baths for the production of TiO ₂ nanotubes. <i>Journal of Nanoparticle Research</i> , 2020, 22, 1.	0.8	3
62	Improvement on cell cyclability of lead acid batteries through high-energy ball milling and addition of multi-walled carbon nanotubes in the formulation of leady oxides. <i>Journal of Applied Electrochemistry</i> , 2021, 51, 387-397.	1.5	3
63	Comparative Evaluation of a Modified Acetic Method for Extraction of Antioxidant Compounds from Black Beans (<i>Phaseolus vulgaris</i>). <i>Food and Nutrition Sciences (Print)</i> , 2012, 03, 348-353.	0.2	2
64	Surface Attachment Enhances the Thermodynamic Stability of Protein...L. <i>Angewandte Chemie</i> , 2019, 131, 1728-1732.	1.6	1
65	Different approaches to teach thermal analysis; roles of undergraduate students: trainee, tutor and designer. <i>International Journal on Interactive Design and Manufacturing</i> , 2019, 13, 1457-1467.	1.3	1
66	Development and Validation of a Rapid Analytical Method for the Simultaneous Quantification of Metabolic Syndrome Drugs by HPLC-DAD Chromatography. <i>Scientia Pharmaceutica</i> , 2021, 89, 8.	0.7	1
67	Galvanostatically Deposited PtNi Thin Films as Electrocatalysts for the Hydrogen Evolution Reaction. <i>ChemistryOpen</i> , 2022, 11, e202100241.	0.9	1
68	Understanding the Biophysics of Protein-Surface Interactions. <i>Biophysical Journal</i> , 2019, 116, 464a.	0.2	0
69	Electrochemical and Chemical Synthesis of Platinum Hierarchical Nanostructures Using Bicontinuous Microemulsions. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
70	Silver Electrodeposition on Nanocrystalline Graphite: Galvanostatic Control As a Tool in the Study Electrodes with High Resistance. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
71	Improving Monolayer Chemistries to Achieve Multiday Aptamer-Based Sensing. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2468-2468.	0.0	0