

# Nuria Garcia-Araez

## List of Publications by Citations

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77  
papers

3,368  
citations

33  
h-index

57  
g-index

85  
ext. papers

3,829  
ext. citations

7.4  
avg, IF

5.58  
L-index

#	Paper	IF	Citations
77	Cooperativity in ion hydration. <i>Science</i> , <b>2010</b> , 328, 1006-9	33.3	491
76	Current Challenges and Routes Forward for Nonaqueous Lithium-Air Batteries. <i>Chemical Reviews</i> , <b>2020</b> , 120, 6558-6625	68.1	183
75	Water dissociation on well-defined platinum surfaces: The electrochemical perspective. <i>Catalysis Today</i> , <b>2013</b> , 202, 105-113	5.3	166
74	Selective electrocatalysis of ammonia oxidation on Pt(1 0 0) sites in alkaline medium. <i>Electrochemistry Communications</i> , <b>2003</b> , 5, 22-26	5.1	134
73	Cathodic corrosion: a quick, clean, and versatile method for the synthesis of metallic nanoparticles. <i>Angewandte Chemie - International Edition</i> , <b>2011</b> , 50, 6346-50	16.4	116
72	Promotion of the oxidation of carbon monoxide at stepped platinum single-crystal electrodes in alkaline media by lithium and beryllium cations. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 16127-33	16.4	107
71	Potential-Dependent Water Orientation on Pt(111), Pt(100), and Pt(110), As Inferred from Laser-Pulsed Experiments. Electrostatic and Chemical Effects. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 9290-9304	3.8	104
70	A new method to prevent degradation of lithium-oxygen batteries: reduction of superoxide by viologen. <i>Chemical Communications</i> , <b>2015</b> , 51, 1705-8	5.8	88
69	Potential of zero total charge of platinum single crystals: A local approach to stepped surfaces vicinal to Pt(111). <i>Russian Journal of Electrochemistry</i> , <b>2006</b> , 42, 1145-1160	1.2	88
68	Thermodynamic studies of chloride adsorption at the Pt(111) electrode surface from 0.1 M HClO <sub>4</sub> solution. <i>Journal of Electroanalytical Chemistry</i> , <b>2005</b> , 576, 33-41	4.1	83
67	The Effect of Water on Quinone Redox Mediators in Nonaqueous Li-O Batteries. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 1428-1437	16.4	73
66	Understanding and development of olivine LiCoPO <sub>4</sub> cathode materials for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 14483-14517	13	69
65	Critical aspects in the development of lithium-air batteries. <i>Journal of Solid State Electrochemistry</i> , <b>2013</b> , 17, 1793-1807	2.6	69
64	Evidence of water reorientation on model electrocatalytic surfaces from nanosecond-laser-pulsed experiments. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 3824-33	16.4	65
63	Thermodynamic approach to the double layer capacity of a Pt(111) electrode in perchloric acid solutions. <i>Electrochimica Acta</i> , <b>2006</b> , 51, 3787-3793	6.7	65
62	Layer-by-layer PMIRRAS characterization of DMPC bilayers deposited on a Au(111) electrode surface. <i>Langmuir</i> , <b>2006</b> , 22, 10365-71	4	63
61	Competitive adsorption of hydrogen and bromide on Pt(1 0 0): Mean-field approximation vs. Monte Carlo simulations. <i>Journal of Electroanalytical Chemistry</i> , <b>2006</b> , 588, 1-14	4.1	62

60	Understanding LiOH Chemistry in a Ruthenium-Catalyzed Li-O Battery. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 16057-16062	16.4	57
59	Analysis of temperature effects on hydrogen and OH adsorption on Pt(111), Pt(100) and Pt(110) by means of Gibbs thermodynamics. <i>Journal of Electroanalytical Chemistry</i> , <b>2010</b> , 649, 69-82	4.1	53
58	On the electrochemical behavior of the Pt(100) vicinal surfaces in bromide solutions. <i>Surface Science</i> , <b>2004</b> , 560, 269-284	1.8	53
57	CO electrooxidation on gold in alkaline media: a combined electrochemical, spectroscopic, and DFT study. <i>Langmuir</i> , <b>2010</b> , 26, 12425-32	4	52
56	Self-promotion mechanism for CO electrooxidation on gold. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 9373-80	3.6	52
55	Effect of pH and alkaline metal cations on the voltammetry of pt(111) single crystal electrodes in sulfuric acid solution. <i>ChemPhysChem</i> , <b>2004</b> , 5, 1221-7	3.2	51
54	On the Role of Fresnel Factors in Sum-Frequency Generation Spectroscopy of Metal/Water and Metal-Oxide/Water Interfaces. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 23351-23361	3.8	50
53	Potential-dependent water orientation on Pt(111) stepped surfaces from laser-pulsed experiments. <i>Electrochimica Acta</i> , <b>2009</b> , 54, 966-977	6.7	50
52	Thermodynamic analysis of (bi)sulphate adsorption on a Pt(111) electrode as a function of pH. <i>Electrochimica Acta</i> , <b>2008</b> , 53, 6793-6806	6.7	50
51	Elucidation of the chemical nature of adsorbed species for Pt(111) in H <sub>2</sub> SO <sub>4</sub> solutions by thermodynamic analysis. <i>Langmuir</i> , <b>2010</b> , 26, 12408-17	4	48
50	Utilization of Cobalt Bis(terpyridine) Metal Complex as Soluble Redox Mediator in LiO <sub>2</sub> Batteries. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 16290-16297	3.8	47
49	Thermodynamic studies of bromide adsorption at the Pt(111) electrode surface perchloric acid solutions: Comparison with other anions. <i>Journal of Electroanalytical Chemistry</i> , <b>2006</b> , 591, 149-158	4.1	45
48	An in-situ Raman study of the oxygen reduction reaction in ionic liquids. <i>Electrochemistry Communications</i> , <b>2014</b> , 46, 33-35	5.1	44
47	Effect of deposited bismuth on the potential of maximum entropy of Pt(111) single-crystal electrodes. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 21092-100	3.4	42
46	Determination of the Gibbs excess of H adsorbed at a Pt(111) electrode surface in the presence of co-adsorbed chloride. <i>Journal of Electroanalytical Chemistry</i> , <b>2005</b> , 582, 76-84	4.1	39
45	Enthalpic and Entropic Effects on Hydrogen and OH Adsorption on Pt(111), Pt(100), and Pt(110) Electrodes As Evaluated by Gibbs Thermodynamics. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 501-510	3.8	35
44	Influence of alkali cations on the infrared spectra of adsorbed (bi)sulphate on Pt(111) electrodes. <i>Electrochemistry Communications</i> , <b>2006</b> , 8, 1577-1582	5.1	32
43	2021 roadmap on lithium sulfur batteries. <i>JPhys Energy</i> , <b>2021</b> , 3, 031501	4.9	32

42	Selective lithium extraction from brines by chemical reaction with battery materials. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 6374-6377	13	30
41	Structural Effects on Water Adsorption on Gold Electrodes. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 21249-21257	3.8	29
40	Predicting the composition and formation of solid products in lithium-sulfur batteries by using an experimental phase diagram. <i>Chemical Communications</i> , <b>2016</b> , 52, 12885-12888	5.8	29
39	A simple, experiment-based model of the initial self-discharge of lithium-sulphur batteries. <i>Journal of Power Sources</i> , <b>2016</b> , 306, 323-328	8.9	27
38	Improving Na-O batteries with redox mediators. <i>Chemical Communications</i> , <b>2017</b> , 53, 12008-12011	5.8	26
37	Effect of the Surface Structure of Gold Electrodes on the Coadsorption of Water and Anions. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 4786-4792	3.8	25
36	Impedance Characterization of the Transport Properties of Electrolytes Contained within Porous Electrodes and Separators Useful for Li-S Batteries. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, A2741-A2749	3.9	22
35	Thermodynamic evidence for K(+)-SO <sub>4</sub> (2-) ion pair formation on Pt(111). New insight into cation specific adsorption. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 12146-52	3.6	22
34	Cathodic Corrosion: A Quick, Clean, and Versatile Method for the Synthesis of Metallic Nanoparticles. <i>Angewandte Chemie</i> , <b>2011</b> , 123, 6470-6474	3.6	20
33	Ion Speciation and Transport Properties of LiTFSI in 1,3-Dioxolane Solutions: A Case Study for Li-S Battery Applications. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 267-274	3.4	20
32	A sol-gel route to titanium nitride conductive coatings on battery materials and performance of TiN-coated LiFePO <sub>4</sub> . <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 2251-2260	13	19
31	Separation of Temperature Effects on Double-Layer and Charge-Transfer Processes for Platinum Solution Interphases. Entropy of Formation of the Double Layer and Absolute Molar Entropy of Adsorbed Hydrogen and OH on Pt(111). <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 19913-19925	3.8	19
30	A Critical Evaluation of the Effect of Electrode Thickness and Side Reactions on Electrolytes for Aluminum-Sulfur Batteries. <i>ChemSusChem</i> , <b>2020</b> , 13, 3514-3523	8.3	19
29	Understanding the charge/discharge mechanisms and passivation reactions in Na-O <sub>2</sub> batteries. <i>Journal of Power Sources</i> , <b>2017</b> , 345, 237-246	8.9	18
28	Critical appraisal on the role of catalysts for the oxygen reduction reaction in lithium-oxygen batteries. <i>Electrochimica Acta</i> , <b>2014</b> , 140, 168-173	6.7	18
27	Determination of the entropy of formation of the Pt(111)  perchloric acid solution interface. Estimation of the entropy of adsorbed hydrogen and OH species. <i>Journal of Solid State Electrochemistry</i> , <b>2008</b> , 12, 387-398	2.6	18
26	Quantitative Galvanostatic Intermittent Titration Technique for the Analysis of a Model System with Applications in Lithium-Sulfur Batteries. <i>ChemElectroChem</i> , <b>2018</b> , 5, 445-454	4.3	16
25	Understanding LiOH Chemistry in a Ruthenium-Catalyzed Li-O <sub>2</sub> Battery. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 16273-16278	3.6	15

24	Using polyoxometalates to enhance the capacity of lithium-oxygen batteries. <i>Chemical Communications</i> , <b>2018</b> , 54, 9599-9602	5.8	13
23	A sublattice-model isotherm for the competitive coadsorption of hydrogen and bromide on a Pt(100) electrode. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 143-8	3.6	12
22	Synthesis of Vanadium Nitride/Hard Carbon Composites from Cellulose and Their Performance for Sodium-Ion Batteries. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 4286-4294	6.1	11
21	Temperature effects on platinum single-crystal electrodes. <i>Russian Journal of Electrochemistry</i> , <b>2012</b> , 48, 271-280	1.2	11
20	Novel Method of Lithium Production from Brines Combining a Battery Material and Sodium Sulfite as a Cheap and Environmentally Friendly Reducing Agent. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2020</b> , 8, 6243-6251	8.3	9
19	An Unsuitable LiO <sub>2</sub> Battery Electrolyte Made Suitable with the Use of Redox Mediators. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 20241-20250	3.8	8
18	Synthesis of Hard Carbon-TiN/TiC Composites by Reacting Cellulose with TiCl Followed by Carbothermal Nitridation/Reduction. <i>Inorganic Chemistry</i> , <b>2019</b> , 58, 5776-5786	5.1	7
17	New insight on the behavior of the irreversible adsorption and underpotential deposition of thallium on platinum (111) and vicinal surfaces in acid electrolytes. <i>Electrochimica Acta</i> , <b>2015</b> , 151, 319-325	6.7	5
16	1 Temperature Effects on Platinum Single-Crystal/Aqueous Solution Interphases. Combining Gibbs Thermodynamics with Laser-Pulsed Experiments. <i>Modern Aspects of Electrochemistry</i> , <b>2011</b> , 1-105		5
15	Solvothermal water-diethylene glycol synthesis of LiCoPO and effects of surface treatments on lithium battery performance.. <i>RSC Advances</i> , <b>2019</b> , 9, 740-752	3.7	4
14	A simple, fast and accurate in-situ method to measure the rate of transport of redox species through membranes for lithium batteries. <i>Journal of Power Sources</i> , <b>2017</b> , 364, 148-155	8.9	4
13	Solvothermal synthesis of Sn <sub>3</sub> N <sub>4</sub> as a high capacity sodium-ion anode: theoretical and experimental study of its storage mechanism. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 16437-16450	13	4
12	Estimating lithium-ion battery behavior from half-cell data. <i>Energy Reports</i> , <b>2021</b> , 7, 97-103	4.6	4
11	Standard Adsorption Gibbs Energy for Hydrogen, OH, Chloride, and Sulfate on Pt(111): Comparison of Different Isotherms. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 3075-3082	3.8	3
10	Facilitating Charge Reactions in Al-S Batteries with Redox Mediators. <i>ChemSusChem</i> , <b>2021</b> , 14, 3139-3146	6.3	3
9	Operando characterization of active surface area and passivation effects on sulfur-carbon composites for lithium-sulfur batteries. <i>Electrochimica Acta</i> , <b>2022</b> , 403, 139572	6.7	2
8	A Highly Sensitive Electrochemical Sensor of Polysulfides in Polymer Lithium-Sulfur Batteries. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 080520	3.9	1
7	Influence of Ionic Coordination on the Cathode Reaction Mechanisms of Al/S Batteries. <i>Journal of Physical Chemistry C</i> ,	3.8	1

6	Enhancing the performance of hard carbon for sodium-ion batteries by coating with silicon nitride/oxycarbide nanoparticles. <i>Materials Advances</i> ,	3.3	1
5	Operando Evaluation of Selectivity and Transference Number of Lithium-Conductive Membranes. <i>ChemElectroChem</i> , <b>2019</b> , 6, 1678-1682	4.3	1
4	Impact of compression on the electrochemical performance of the sulfur/carbon composite electrode in lithium-sulfur batteries. <i>Batteries and Supercaps</i> ,	5.6	1
3	Highly Sensitive Operando Pressure Measurements of Li-ion Battery Materials with a Simply Modified Swagelok Cell. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 110511	3.9	0
2	Novel cell designs and methods for characterizing lithium protective membranes for lithium metal batteries. <i>Energy Procedia</i> , <b>2018</b> , 151, 62-68	2.3	0
1	Operando Evaluation of Selectivity and Transference Number of Lithium-Conductive Membranes. <i>ChemElectroChem</i> , <b>2019</b> , 6, 1586-1586	4.3	