

Nuria Garcia-Araez

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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 | Operando characterization of active surface area and passivation effects on sulfur-carbon composites for lithium-sulfur batteries. <i>Electrochimica Acta</i> , 2022 , 403, 139572 | 6.7 | 2 |
| 76 | 2021 roadmap on lithium sulfur batteries. <i>JPhys Energy</i> , 2021 , 3, 031501 | 4.9 | 32 |
| 75 | Estimating lithium-ion battery behavior from half-cell data. <i>Energy Reports</i> , 2021 , 7, 97-103 | 4.6 | 4 |
| 74 | Facilitating Charge Reactions in Al-S Batteries with Redox Mediators. <i>ChemSusChem</i> , 2021 , 14, 3139-3146. | 6.3 | 3 |
| 73 | A Highly Sensitive Electrochemical Sensor of Polysulfides in Polymer Lithium-Sulfur Batteries. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 080520 | 3.9 | 1 |
| 72 | Highly Sensitive Operando Pressure Measurements of Li-ion Battery Materials with a Simply Modified Swagelok Cell. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 110511 | 3.9 | 0 |
| 71 | 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> , 2020 , 8, 6243-6251 | 8.3 | 9 |
| 70 | Current Challenges and Routes Forward for Nonaqueous Lithium-Air Batteries. <i>Chemical Reviews</i> , 2020 , 120, 6558-6625 | 68.1 | 183 |
| 69 | Synthesis of Vanadium Nitride/Graphene Carbon Composites from Cellulose and Their Performance for Sodium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2020 , 3, 4286-4294 | 6.1 | 11 |
| 68 | Solvothermal synthesis of Sn ₃ N ₄ as a high capacity sodium-ion anode: theoretical and experimental study of its storage mechanism. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 16437-16450 | 13 | 4 |
| 67 | A Critical Evaluation of the Effect of Electrode Thickness and Side Reactions on Electrolytes for Aluminum-Sulfur Batteries. <i>ChemSusChem</i> , 2020 , 13, 3514-3523 | 8.3 | 19 |
| 66 | Solvothermal water-diethylene glycol synthesis of LiCoPO and effects of surface treatments on lithium battery performance.. <i>RSC Advances</i> , 2019 , 9, 740-752 | 3.7 | 4 |
| 65 | Synthesis of Hard Carbon-TiN/TiC Composites by Reacting Cellulose with TiCl Followed by Carbothermal Nitridation/Reduction. <i>Inorganic Chemistry</i> , 2019 , 58, 5776-5786 | 5.1 | 7 |
| 64 | Operando Evaluation of Selectivity and Transference Number of Lithium-Conductive Membranes. <i>ChemElectroChem</i> , 2019 , 6, 1586-1586 | 4.3 | |
| 63 | An Unsuitable LiO ₂ Battery Electrolyte Made Suitable with the Use of Redox Mediators. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 20241-20250 | 3.8 | 8 |
| 62 | Operando Evaluation of Selectivity and Transference Number of Lithium-Conductive Membranes. <i>ChemElectroChem</i> , 2019 , 6, 1678-1682 | 4.3 | 1 |
| 61 | The Effect of Water on Quinone Redox Mediators in Nonaqueous Li-O Batteries. <i>Journal of the American Chemical Society</i> , 2018 , 140, 1428-1437 | 16.4 | 73 |

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| 60 | Using polyoxometalates to enhance the capacity of lithium-oxygen batteries. <i>Chemical Communications</i> , 2018 , 54, 9599-9602 | 5.8 | 13 |
| 59 | Understanding and development of olivine LiCoPO ₄ cathode materials for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 14483-14517 | 13 | 69 |
| 58 | 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> , 2018 , 165, A2741-A2749 | 3.9 | 22 |
| 57 | 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> , 2018 , 122, 267-274 | 3.4 | 20 |
| 56 | Quantitative Galvanostatic Intermittent Titration Technique for the Analysis of a Model System with Applications in Lithium-Sulfur Batteries. <i>ChemElectroChem</i> , 2018 , 5, 445-454 | 4.3 | 16 |
| 55 | Novel cell designs and methods for characterizing lithium protective membranes for lithium metal batteries. <i>Energy Procedia</i> , 2018 , 151, 62-68 | 2.3 | 0 |
| 54 | Understanding the charge/discharge mechanisms and passivation reactions in Na-O ₂ batteries. <i>Journal of Power Sources</i> , 2017 , 345, 237-246 | 8.9 | 18 |
| 53 | A sol-gel route to titanium nitride conductive coatings on battery materials and performance of TiN-coated LiFePO ₄ . <i>Journal of Materials Chemistry A</i> , 2017 , 5, 2251-2260 | 13 | 19 |
| 52 | Understanding LiOH Chemistry in a Ruthenium-Catalyzed Li-O ₂ Battery. <i>Angewandte Chemie</i> , 2017 , 129, 16273-16278 | 3.6 | 15 |
| 51 | Improving Na-O batteries with redox mediators. <i>Chemical Communications</i> , 2017 , 53, 12008-12011 | 5.8 | 26 |
| 50 | Understanding LiOH Chemistry in a Ruthenium-Catalyzed Li-O Battery. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 16057-16062 | 16.4 | 57 |
| 49 | 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> , 2017 , 364, 148-155 | 8.9 | 4 |
| 48 | Utilization of Cobalt Bis(terpyridine) Metal Complex as Soluble Redox Mediator in Li-O ₂ Batteries. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 16290-16297 | 3.8 | 47 |
| 47 | A simple, experiment-based model of the initial self-discharge of lithium-sulphur batteries. <i>Journal of Power Sources</i> , 2016 , 306, 323-328 | 8.9 | 27 |
| 46 | Predicting the composition and formation of solid products in lithium-sulfur batteries by using an experimental phase diagram. <i>Chemical Communications</i> , 2016 , 52, 12885-12888 | 5.8 | 29 |
| 45 | A new method to prevent degradation of lithium-oxygen batteries: reduction of superoxide by viologen. <i>Chemical Communications</i> , 2015 , 51, 1705-8 | 5.8 | 88 |
| 44 | 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> , 2015 , 151, 319-325 | 6.7 | 5 |
| 43 | Selective lithium extraction from brines by chemical reaction with battery materials. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 6374-6377 | 13 | 30 |

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| 42 | Critical appraisal on the role of catalysts for the oxygen reduction reaction in lithium-oxygen batteries. <i>Electrochimica Acta</i> , 2014 , 140, 168-173 | 6.7 | 18 |
| 41 | An in-situ Raman study of the oxygen reduction reaction in ionic liquids. <i>Electrochemistry Communications</i> , 2014 , 46, 33-35 | 5.1 | 44 |
| 40 | Water dissociation on well-defined platinum surfaces: The electrochemical perspective. <i>Catalysis Today</i> , 2013 , 202, 105-113 | 5.3 | 166 |
| 39 | Critical aspects in the development of lithium-air batteries. <i>Journal of Solid State Electrochemistry</i> , 2013 , 17, 1793-1807 | 2.6 | 69 |
| 38 | Temperature effects on platinum single-crystal electrodes. <i>Russian Journal of Electrochemistry</i> , 2012 , 48, 271-280 | 1.2 | 11 |
| 37 | Effect of the Surface Structure of Gold Electrodes on the Coadsorption of Water and Anions. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 4786-4792 | 3.8 | 25 |
| 36 | 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> , 2012 , 116, 23351-23361 | 3.8 | 50 |
| 35 | 1 Temperature Effects on Platinum Single-Crystal/Aqueous Solution Interphases. Combining Gibbs Thermodynamics with Laser-Pulsed Experiments. <i>Modern Aspects of Electrochemistry</i> , 2011 , 1-105 | | 5 |
| 34 | Standard Adsorption Gibbs Energy for Hydrogen, OH, Chloride, and Sulfate on Pt(111): Comparison of Different Isotherms. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 3075-3082 | 3.8 | 3 |
| 33 | Cathodic Corrosion: A Quick, Clean, and Versatile Method for the Synthesis of Metallic Nanoparticles. <i>Angewandte Chemie</i> , 2011 , 123, 6470-6474 | 3.6 | 20 |
| 32 | Cathodic corrosion: a quick, clean, and versatile method for the synthesis of metallic nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 6346-50 | 16.4 | 116 |
| 31 | 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> , 2011 , 115, 501-510 | 3.8 | 35 |
| 30 | Structural Effects on Water Adsorption on Gold Electrodes. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 21249-21257 | 3.8 | 29 |
| 29 | Thermodynamic evidence for K(+)-SO4(2-) ion pair formation on Pt(111). New insight into cation specific adsorption. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 12146-52 | 3.6 | 22 |
| 28 | 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> , 2010 , 132, 16127-33 | 16.4 | 107 |
| 27 | Elucidation of the chemical nature of adsorbed species for Pt(111) in H2SO4 solutions by thermodynamic analysis. <i>Langmuir</i> , 2010 , 26, 12408-17 | 4 | 48 |
| 26 | CO electrooxidation on gold in alkaline media: a combined electrochemical, spectroscopic, and DFT study. <i>Langmuir</i> , 2010 , 26, 12425-32 | 4 | 52 |
| 25 | Cooperativity in ion hydration. <i>Science</i> , 2010 , 328, 1006-9 | 33.3 | 491 |

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| 24 | A sublattice-model isotherm for the competitive coadsorption of hydrogen and bromide on a Pt(100) electrode. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 143-8 | 3.6 | 12 |
| 23 | Self-promotion mechanism for CO electrooxidation on gold. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 9373-80 | 3.6 | 52 |
| 22 | 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> , 2010 , 649, 69-82 | 4.1 | 53 |
| 21 | Potential-dependent water orientation on Pt(111) stepped surfaces from laser-pulsed experiments. <i>Electrochimica Acta</i> , 2009 , 54, 966-977 | 6.7 | 50 |
| 20 | 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> , 2009 , 113, 19913-19925 | 3.8 | 19 |
| 19 | 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> , 2009 , 113, 9290-9304 | 3.8 | 104 |
| 18 | Evidence of water reorientation on model electrocatalytic surfaces from nanosecond-laser-pulsed experiments. <i>Journal of the American Chemical Society</i> , 2008 , 130, 3824-33 | 16.4 | 65 |
| 17 | Thermodynamic analysis of (bi)sulphate adsorption on a Pt(111) electrode as a function of pH. <i>Electrochimica Acta</i> , 2008 , 53, 6793-6806 | 6.7 | 50 |
| 16 | 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> , 2008 , 12, 387-398 | 2.6 | 18 |
| 15 | Layer-by-layer PMIRRAS characterization of DMPC bilayers deposited on a Au(111) electrode surface. <i>Langmuir</i> , 2006 , 22, 10365-71 | 4 | 63 |
| 14 | Effect of deposited bismuth on the potential of maximum entropy of Pt(111) single-crystal electrodes. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 21092-100 | 3.4 | 42 |
| 13 | Influence of alkali cations on the infrared spectra of adsorbed (bi)sulphate on Pt(111) electrodes. <i>Electrochemistry Communications</i> , 2006 , 8, 1577-1582 | 5.1 | 32 |
| 12 | Thermodynamic approach to the double layer capacity of a Pt(111) electrode in perchloric acid solutions. <i>Electrochimica Acta</i> , 2006 , 51, 3787-3793 | 6.7 | 65 |
| 11 | Competitive adsorption of hydrogen and bromide on Pt(1 0 0): Mean-field approximation vs. Monte Carlo simulations. <i>Journal of Electroanalytical Chemistry</i> , 2006 , 588, 1-14 | 4.1 | 62 |
| 10 | Thermodynamic studies of bromide adsorption at the Pt(111) electrode surface perchloric acid solutions: Comparison with other anions. <i>Journal of Electroanalytical Chemistry</i> , 2006 , 591, 149-158 | 4.1 | 45 |
| 9 | 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> , 2006 , 42, 1145-1160 | 1.2 | 88 |
| 8 | Thermodynamic studies of chloride adsorption at the Pt(111) electrode surface from 0.1 M HClO ₄ solution. <i>Journal of Electroanalytical Chemistry</i> , 2005 , 576, 33-41 | 4.1 | 83 |
| 7 | 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> , 2005 , 582, 76-84 | 4.1 | 39 |

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| 6 | On the electrochemical behavior of the Pt(100) vicinal surfaces in bromide solutions. <i>Surface Science</i> , 2004 , 560, 269-284 | 1.8 | 53 |
| 5 | Effect of pH and alkaline metal cations on the voltammetry of pt(111) single crystal electrodes in sulfuric acid solution. <i>ChemPhysChem</i> , 2004 , 5, 1221-7 | 3.2 | 51 |
| 4 | Selective electrocatalysis of ammonia oxidation on Pt(1 0 0) sites in alkaline medium. <i>Electrochemistry Communications</i> , 2003 , 5, 22-26 | 5.1 | 134 |
| 3 | Influence of Ionic Coordination on the Cathode Reaction Mechanisms of Al/S Batteries. <i>Journal of Physical Chemistry C</i> , | 3.8 | 1 |
| 2 | Enhancing the performance of hard carbon for sodium-ion batteries by coating with silicon nitride/oxy carbide nanoparticles. <i>Materials Advances</i> , | 3.3 | 1 |
| 1 | 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 |