# MarÃ- a Escudero Escribano

List of Publications by Year
in descending order



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|---|---|---|---|
| 73 papers | 4,614 citations | 172207 29 h-index | 106150 65 g-index |
| 77 all docs | 77 docs citations | 77 times ranked | 5783 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Benchmarking Fuel Cell Electrocatalysts Using Gas Diffusion Electrodes: Inter-lab Comparison and Best Practices. ACS Energy Letters, 2022, 7, 816-826. | 8.8 | 58 |
| 2 | Toward understanding the role of the electric double layer structure and electrolyte effects on well-defined interfaces for electrocatalysis. Current Opinion in Electrochemistry, 2022, 32, 100918. | 2.5 | 25 |
| 3 | Recent progress and perspectives on single-atom catalysis. Journal of Materials Chemistry A, 2022, 10, 5670-5672. | 5.2 | 15 |
| 4 | Surfactant-free syntheses and pair distribution function analysis of osmium nanoparticles. Beilstein Journal of Nanotechnology, 2022, 13, 230-235. | 1.5 | 5 |
| 5 | (Invited) Tailored Electrochemical Interfaces for the Production of Renewable Fuels. ECS Meeting Abstracts, 2022, MA2022-01, 1601-1601. | 0.0 | 0 |
| 6 | Reactivity with Water and Bulk Ruthenium Redox of Lithium Ruthenate in Basic Solutions. Advanced Functional Materials, 2021, 31, 2002249. | 7.8 | 5 |
| 7 | Self-supported Ptâ€“CoO networks combining high specific activity with high surface area for oxygen reduction. Nature Materials, 2021, 20, 208-213. | 13.3 | 139 |
| 8 | pH and Anion Effects on Cuâ€“Phosphate Interfaces for CO Electroreduction. ACS Catalysis, 2021, 11, 1128-1135. | 5.5 | 22 |
| 9 | Electrochemically Decorated Iridium Electrodes with WS<sub>3âˆ’</sub><i><sub>x</sub></i> Toward Improved Oxygen Evolution Electrocatalyst Stability in Acidic Electrolytes. Advanced Sustainable Systems, 2021, 5, 2000284. | 2.7 | 8 |
| 10 | Strategies towardÂthe sustainable electrochemical oxidation of methane to methanol. Current Opinion in Green and Sustainable Chemistry, 2021, 30, 100489. | 3.2 | 21 |
| 11 | Preparation of high surface area Cuâ€Au bimetallic nanostructured materials by coâ€electrodeposition in a deep eutectic solvent. Electrochimica Acta, 2021, 398, 139309. | 2.6 | 9 |
| 12 | Surface characterization of copper electrocatalysts by lead underpotential deposition. Journal of Electroanalytical Chemistry, 2021, 896, 115446. | 1.9 | 25 |
| 13 | Energy Spotlight. ACS Energy Letters, 2021, 6, 4413-4415. | 8.8 | 1 |
| 14 | Self-supported nanostructured iridium-based networks as highly active electrocatalysts for oxygen evolution in acidic media. Journal of Materials Chemistry A, 2020, 8, 1066-1071. | 5.2 | 43 |
| 15 | Synthesis of Iridium Nanocatalysts for Water Oxidation in Acid: Effect of the Surfactant. ChemCatChem, 2020, 12, 1282-1287. | 1.8 | 31 |
| 16 | Addressing the Interfacial Properties for CO Electroreduction on Cu with Cyclic Voltammetry. ACS Energy Letters, 2020, 5, 130-135. | 8.8 | 19 |
| 17 | Recent advances in surface x-ray diffraction and the potential for determining structure-sensitivity relations in single-crystal electrocatalysis. Current Opinion in Electrochemistry, 2020, 23, 162-173. | 2.5 | 18 |
| 18 | X-ray Absorption Spectroscopy Investigation of Platinumâ€“Gadolinium Thin Films with Different Stoichiometry for the Oxygen Reduction Reaction. Catalysts, 2020, 10, 978. | 1.6 | 2 |

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|---|---|---|---|
| 19 | Tailored electrocatalysts by controlled electrochemical deposition and surface nanostructuring. Chemical Communications, 2020, 56, 13261-13272. | 2.2 | 19 |
| 20 | Elucidating the Structure of the Cu-Alkaline Electrochemical Interface with the Laser-Induced Temperature Jump Method. Journal of Physical Chemistry C, 2020, 124, 23253-23259. | 1.5 | 24 |
| 21 | Realistic Cyclic Voltammograms from <i>Ab Initio</i> Simulations in Alkaline and Acidic Electrolytes. Journal of Physical Chemistry C, 2020, 124, 20055-20065. | 1.5 | 18 |
| 22 | Toward Overcoming the Challenges in the Comparison of Different Pd Nanocatalysts: Case Study of the Ethanol Oxidation Reaction. Inorganics, 2020, 8, 59. | 1.2 | 8 |
| 23 | Women Scientists at the Forefront of Energy Research: A Virtual Issue, Part 2. ACS Energy Letters, 2020, 5, 623-633. | 8.8 | 2 |
| 24 | Insights in the Oxygen Reduction Reaction: From Metallic Electrocatalysts to Diporphyrins. ACS Catalysis, 2020, 10, 5979-5989. | 5.5 | 52 |
| 25 | Electrolyte Effects on Single Crystal Cyclic Voltammograms. ECS Meeting Abstracts, 2020, MA2020-02, 3046-3046. | 0.0 | 0 |
| 26 | Ab Initio Cyclic Voltammetry on Cu(111), Cu(100) and Cu(110) in Acidic, Neutral and Alkaline Solutions. ChemPhysChem, 2019, 20, 3096-3105. | 1.0 | 48 |
| 27 | Electrolyte Effects on the Electrocatalytic Performance of Iridiumâ€Based Nanoparticles for Oxygen Evolution in Rotating Disc Electrodes. ChemPhysChem, 2019, 20, 2956-2963. | 1.0 | 44 |
| 28 | Structureâ€Sensitivity and Electrolyte Effects in CO<sub>2</sub> Electroreduction: From Model Studies to Applications. ChemCatChem, 2019, 11, 3626-3645. | 1.8 | 61 |
| 29 | Electrochemical Synthesis of High-Value Chemicals: Detection of Key Reaction Intermediates and Products Combining Gas Chromatographyâ€“Mass Spectrometry and <i>in Situ</i> Infrared Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 12762-12772. | 1.5 | 3 |
| 30 | Sputtered Platinum Thin-films for Oxygen Reduction in Gas Diffusion Electrodes: A Model System for Studies under Realistic Reaction Conditions. Surfaces, 2019, 2, 336-348. | 1.0 | 27 |
| 31 | The Role of Electrocatalysis in a Sustainable Future: From Renewable Energy Conversion and Storage to Emerging Reactions. ChemPhysChem, 2019, 20, 2900-2903. | 1.0 | 17 |
| 32 | Catalyst design criteria and fundamental limitations in the electrochemical synthesis of dimethyl carbonate. Green Chemistry, 2019, 21, 6200-6209. | 4.6 | 6 |
| 33 | Electrochemically Generated Copper Carbonyl for Selective Dimethyl Carbonate Synthesis. ACS Catalysis, 2019, 9, 859-866. | 5.5 | 15 |
| 34 | PEMFC Catalyst Testing: From RDE to GDE Setup. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 35 | Benchmarking high surface area electrocatalysts in a gas diffusion electrode: measurement of oxygen reduction activities under realistic conditions. Energy and Environmental Science, 2018, 11, 988-994. | 15.6 | 147 |
| 36 | Frontispiece: Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copperâ€“Platinum(111) Alloy. Angewandte Chemie - International Edition, 2018, 57, . | 7.2 | 1 |

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|---|---|---|---|
| 37 | Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copperâ€“Platinum(111) Alloy. Angewandte Chemie - International Edition, 2018, 57, 2800-2805. | 7.2 | 72 |
| 38 | Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copperâ€“Platinum(111) Alloy. Angewandte Chemie, 2018, 130, 2850-2855. | 1.6 | 10 |
| 39 | Frontispiz: Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copperâ€“Platinum(111) Alloy. Angewandte Chemie, 2018, 130, . | 1.6 | 0 |
| 40 | Importance of Surface IrO<sub><i>x</i></sub>in Stabilizing RuO<sub>2</sub>for Oxygen Evolution. Journal of Physical Chemistry B, 2018, 122, 947-955. | 1.2 | 95 |
| 41 | Frontispiece: Active-Phase Formation and Stability of Gd/Pt(111) Electrocatalysts for Oxygen Reduction: An In Situ Grazing Incidence X-Ray Diffraction Study. Chemistry - A European Journal, 2018, 24, . | 1.7 | 0 |
| 42 | Activeâ€Phase Formation and Stability of Gd/Pt(111) Electrocatalysts for Oxygen Reduction: An In Situ Grazing Incidence Xâ€Ray Diffraction Study. Chemistry - A European Journal, 2018, 24, 12280-12290. | 1.7 | 17 |
| 43 | Copper Silver Thin Films with Metastable Miscibility for Oxygen Reduction Electrocatalysis in Alkaline Electrolytes. ACS Applied Energy Materials, 2018, 1, 1990-1999. | 2.5 | 40 |
| 44 | Recent advances in bimetallic electrocatalysts for oxygen reduction: design principles, structure-function relations and active phase elucidation. Current Opinion in Electrochemistry, 2018, 8, 135-146. | 2.5 | 60 |
| 45 | <i>Operando</i> XAS Study of the Surface Oxidation State on a Monolayer IrO<sub><i>x</i></sub> on RuO<sub><i>x</i></sub> and Ru Oxide Based Nanoparticles for Oxygen Evolution in Acidic Media. Journal of Physical Chemistry B, 2018, 122, 878-887. | 1.2 | 59 |
| 46 | Studies of the Oxygen Reduction Reaction of Pt Single Crystals Alloys in Alkaline Media. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 47 | (Energy Technology Division Supramaniam Srinivasan Young Investigator Award Address) Enhanced Oxygen Electrocatalysis By Means of Electronic and Geometric Effects. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 48 | New Platinum Alloy Catalysts for Oxygen Electroreduction Based on Alkaline Earth Metals. Electrocatalysis, 2017, 8, 594-604. | 1.5 | 23 |
| 49 | High Specific and Mass Activity for the Oxygen Reduction Reaction for Thin Film Catalysts of Sputtered Pt<sub>3</sub>Y. Advanced Materials Interfaces, 2017, 4, 1700311. | 1.9 | 39 |
| 50 | Coreâ€“Shell Au@Metal-Oxide Nanoparticle Electrocatalysts for Enhanced Oxygen Evolution. Nano Letters, 2017, 17, 6040-6046. | 4.5 | 135 |
| 51 | Fuel Cells: High Specific and Mass Activity for the Oxygen Reduction Reaction for Thin Film Catalysts of Sputtered Pt<sub>3</sub>Y (Adv. Mater. Interfaces 13/2017). Advanced Materials Interfaces, 2017, 4, . | 1.9 | 0 |
| 52 | Benchmarking Pt and Pt-lanthanide sputtered thin films for oxygen electroreduction: fabrication and rotating disk electrode measurements. Electrochimica Acta, 2017, 247, 708-721. | 2.6 | 39 |
| 53 | Tuning the activity of Pt alloy electrocatalysts by means of the lanthanide contraction. Science, 2016, 352, 73-76. | 6.0 | 783 |
| 54 | Probing the nanoscale structure of the catalytically active overlayer on Pt alloys with rare earths. Nano Energy, 2016, 29, 249-260. | 8.2 | 49 |

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|---|---|---|---|
| 55 | Metallization of cyanide-modified Pt(111) electrodes with copper. Journal of Solid State Electrochemistry, 2016, 20, 1087-1094. | 1.2 | 6 |
| 56 | Pt Gd alloy formation on Pt(111): Preparation and structural characterization. Surface Science, 2016, 652, 114-122. | 0.8 | 16 |
| 57 | The enhanced activity of mass-selected Pt Gd nanoparticles for oxygen electroreduction. Journal of Catalysis, 2015, 328, 297-307. | 3.1 | 83 |
| 58 | Benchmarking Pt-based electrocatalysts for low temperature fuel cell reactions with the rotating disk electrode: oxygen reduction and hydrogen oxidation in the presence of CO (review article). Electrochimica Acta, 2015, 179, 647-657. | 2.6 | 86 |
| 59 | Towards the elucidation of the high oxygen electroreduction activity of Pt<sub>x</sub>Y: surface science and electrochemical studies of Y/Pt(111). Physical Chemistry Chemical Physics, 2014, 16, 13718-13725. | 1.3 | 27 |
| 60 | Enhanced activity and stability of Ptâ€"La and Ptâ€"Ce alloys for oxygen electroreduction: the elucidation of the active surface phase. Journal of Materials Chemistry A, 2014, 2, 4234. | 5.2 | 105 |
| 61 | Enabling direct H2O2 production through rational electrocatalyst design. Nature Materials, 2013, 12, 1137-1143. | 13.3 | 1,031 |
| 62 | Electrooxidation of formic acid on gold: An ATR-SEIRAS study of the role of adsorbed formate. Catalysis Today, 2013, 202, 79-86. | 2.2 | 62 |
| 63 | Electrochemical STM study of the adsorption of adenine on Au(111) electrodes. Electrochemistry Communications, 2013, 35, 61-64. | 2.3 | 26 |
| 64 | Pt<sub>5</sub>Gd as a Highly Active and Stable Catalyst for Oxygen Electroreduction. Journal of the American Chemical Society, 2012, 134, 16476-16479. | 6.6 | 234 |
| 65 | Cyanide-modified Pt(111): Structure, stability and hydrogen adsorption. Electrochimica Acta, 2012, 82, 524-533. | 2.6 | 20 |
| 66 | Quantitative Study of Nonâ€Covalent Interactions at the Electrodeâ€"Electrolyte Interface Using Cyanideâ€Modified Pt(111) Electrodes. ChemPhysChem, 2011, 12, 2230-2234. | 1.0 | 40 |
| 67 | Enhanced electrocatalysis of the oxygen reduction reaction based on patterning of platinum surfaces with cyanide. Nature Chemistry, 2010, 2, 880-885. | 6.6 | 284 |
| 68 | Surface Decoration at the Atomic Scale Using a Molecular Pattern: Copper Adsorption on Cyanide-Modified Pt(111) Electrodes. Journal of Physical Chemistry C, 2009, 113, 12340-12344. | 1.5 | 7 |
| 69 | Cyclic Voltammetry, FTIRS, and DEMS Study of the Electrooxidation of Carbon Monoxide, Formic Acid, and Methanol on Cyanide-Modified Pt(111) Electrodes. Langmuir, 2009, 25, 6500-6507. | 1.6 | 149 |
| 70 | Electrochemical and FTIRS characterisation of NO adlayers on cyanide-modified Pt(111) electrodes: the mechanism of nitric oxide electroreduction on Pt. Physical Chemistry Chemical Physics, 2008, 10, 3628. | 1.3 | 50 |
| 71 | Surface Sensitivity and Electrolyte Effects on Cu Single-crystalline Electrodes for CO Electroreduction. , 0, , . | | 0 |
| 72 | Surface Sensitivity and Electrolyte Effects on Cu Single-crystalline Electrodes for CO Electroreduction. , 0, , . | | 0 |

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|---|---|---|---|
| 73 | Electrocatalytic Synthesis of Dimethyl Carbonate. , 0, , . | | 0 |