# Nemanja Danilovic

List of Publications by Year
in descending order

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|---|---|---|---|
| 57<br>papers | 6,767<br>citations | 136950<br>32<br>h-index | 155660<br>55<br>g-index |
| 59<br>all docs | 59<br>docs citations | 59<br>times ranked | 8193<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Improving the hydrogen oxidation reaction rate by promotion of hydroxyl adsorption. Nature Chemistry, 2013, 5, 300-306. | 13.6 | 945 |
| 2 | Design of active and stable Coâ€"Moâ€"Sx chalcogels as pH-universal catalysts for the hydrogen evolution reaction. Nature Materials, 2016, 15, 197-203. | 27.5 | 825 |
| 3 | Dynamic surface self-reconstruction is the key of highly active perovskite nano-electrocatalysts for water splitting. Nature Materials, 2017, 16, 925-931. | 27.5 | 696 |
| 4 | Activityâ€"Stability Trends for the Oxygen Evolution Reaction on Monometallic Oxides in Acidic Environments. Journal of Physical Chemistry Letters, 2014, 5, 2474-2478. | 4.6 | 569 |
| 5 | Fe (Oxy)hydroxide Oxygen Evolution Reaction Electrocatalysis: Intrinsic Activity and the Roles of Electrical Conductivity, Substrate, and Dissolution. Chemistry of Materials, 2015, 27, 8011-8020. | 6.7 | 395 |
| 6 | Using Surface Segregation To Design Stable Ruâ€Ir Oxides for the Oxygen Evolution Reaction in Acidic Environments. Angewandte Chemie - International Edition, 2014, 53, 14016-14021. | 13.8 | 331 |
| 7 | Functional links between stability and reactivity of strontium ruthenate single crystals during oxygen evolution. Nature Communications, 2014, 5, 4191. | 12.8 | 252 |
| 8 | Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. Nature Communications, 2017, 8, 1449. | 12.8 | 250 |
| 9 | Perspectives on Low-Temperature Electrolysis and Potential for Renewable Hydrogen at Scale. Annual Review of Chemical and Biomolecular Engineering, 2019, 10, 219-239. | 6.8 | 223 |
| 10 | A non-precious metal hydrogen catalyst in a commercial polymer electrolyte membrane electrolyser. Nature Nanotechnology, 2019, 14, 1071-1074. | 31.5 | 209 |
| 11 | Earth-Abundant Oxygen Electrocatalysts for Alkaline Anion-Exchange-Membrane Water Electrolysis: Effects of Catalyst Conductivity and Comparison with Performance in Three-Electrode Cells. ACS Catalysis, 2019, 9, 7-15. | 11.2 | 189 |
| 12 | Electrocatalysis of the HER in acid and alkaline media. Journal of the Serbian Chemical Society, 2013, 78, 2007-2015. | 0.8 | 141 |
| 13 | Nano-size IrOx catalyst of high activity and stability in PEM water electrolyzer with ultra-low iridium loading. Applied Catalysis B: Environmental, 2018, 239, 133-146. | 20.2 | 131 |
| 14 | Pathways to ultra-low platinum group metal catalyst loading in proton exchange membrane electrolyzers. Catalysis Today, 2016, 262, 121-132. | 4.4 | 129 |
| 15 | Calculating the Electrochemically Active Surface Area of Iridium Oxide in Operating Proton Exchange Membrane Electrolyzers. Journal of the Electrochemical Society, 2015, 162, F1292-F1298. | 2.9 | 88 |
| 16 | Activityâ€"stability relationship in the surface electrochemistry of the oxygen evolution reaction. Faraday Discussions, 2014, 176, 125-133. | 3.2 | 83 |
| 17 | Structural basis for differing electrocatalytic water oxidation by the cubic, layered and spinel forms of lithium cobalt oxides. Energy and Environmental Science, 2016, 9, 184-192. | 30.8 | 81 |
| 18 | Initial approaches in benchmarking and round robin testing for proton exchange membrane water electrolyzers. International Journal of Hydrogen Energy, 2019, 44, 9174-9187. | 7.1 | 80 |

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|---|---|---|---|
| 19 | Origin of Anomalous Activities for Electrocatalysts in Alkaline Electrolytes. Journal of Physical Chemistry C, 2012, 116, 22231-22237. | 3.1 | 71 |
| 20 | Correlation of Fuel Cell Anode Electrocatalytic and ex situ Catalytic Activity of Perovskites La<sub>0.75</sub>Sr<sub>0.25</sub>Cr<sub>0.5</sub>X<sub>0.5</sub>O<sub>3â^'Î´</sub> (X = Ti, Mn, Fe,) Tj ETQq0 0 0 rgBT /Ove | 6.7 | 68 |
| 21 | Highly Active Nanoperovskite Catalysts for Oxygen Evolution Reaction: Insights into Activity and Stability of Ba<sub>0.5</sub>Sr<sub>0.5</sub>Co<sub>0.8</sub>Fe<sub>0.2</sub>O<sub>2+Î´</sub> and PrBaCo<sub>2</sub>O<sub>5+Î´</sub>. Advanced Functional Materials, 2018, 28, 1804355. | 14.9 | 63 |
| 22 | The Effect of Noncovalent Interactions on the HOR, ORR, and HER on Ru, Ir, and Ru0.50Ir0.50 Metal Surfaces in Alkaline Environments. Electrocatalysis, 2012, 3, 221-229. | 3.0 | 59 |
| 23 | A low temperature unitized regenerative fuel cell realizing 60% round trip efficiency and 10â€‰000 cycles of durability for energy storage applications. Energy and Environmental Science, 2020, 13, 2096-2105. | 30.8 | 57 |
| 24 | Pathway to Complete Energy Sector Decarbonization with Available Iridium Resources using Ultralow Loaded Water Electrolyzers. ACS Applied Materials & Interfaces, 2020, 12, 52701-52712. | 8.0 | 52 |
| 25 | Elucidating effects of catalyst loadings and porous transport layer morphologies on operation of proton exchange membrane water electrolyzers. Applied Catalysis B: Environmental, 2022, 308, 121213. | 20.2 | 48 |
| 26 | Ce0.9Sr0.1VOx (x=3, 4) as anode materials for H2S-containing CH4 fueled solid oxide fuel cells. Journal of Power Sources, 2009, 192, 247-257. | 7.8 | 45 |
| 27 | Interfacial analysis of a PEM electrolyzer using X-ray computed tomography. Sustainable Energy and Fuels, 2020, 4, 921-931. | 4.9 | 44 |
| 28 | Hierarchical electrode design of highly efficient and stable unitized regenerative fuel cells (URFCs) for long-term energy storage. Energy and Environmental Science, 2020, 13, 4872-4881. | 30.8 | 43 |
| 29 | Insights into Interfacial and Bulk Transport Phenomena Affecting Proton Exchange Membrane Water Electrolyzer Performance at Ultraâ€Low Iridium Loadings. Advanced Science, 2021, 8, e2102950. | 11.2 | 41 |
| 30 | Nanoporous Iridium Nanosheets for Polymer Electrolyte Membrane Electrolysis. Advanced Energy Materials, 2021, 11, 2101438. | 19.5 | 40 |
| 31 | Observation of Preferential Pathways for Oxygen Removal through Porous Transport Layers of Polymer Electrolyte Water Electrolyzers. IScience, 2020, 23, 101783. | 4.1 | 39 |
| 32 | (Plenary) Challenges in Going from Laboratory to Megawatt Scale PEM Electrolysis. ECS Transactions, 2016, 75, 395-402. | 0.5 | 34 |
| 33 | The Role of Water in Vapor-fed Proton-Exchange-Membrane Electrolysis. Journal of the Electrochemical Society, 2020, 167, 104508. | 2.9 | 34 |
| 34 | Effect of substitution with Cr3+ and addition of Ni on the physical and electrochemical properties of Ce0.9Sr0.1VO3 as a H2S-active anode for solid oxide fuel cells. Journal of Power Sources, 2009, 194, 252-262. | 7.8 | 33 |
| 35 | Supported Oxygen Evolution Catalysts by Design: Toward Lower Precious Metal Loading and Improved Conductivity in Proton Exchange Membrane Water Electrolyzers. ACS Catalysis, 2020, 10, 13125-13135. | 11.2 | 33 |
| 36 | An integral proton conducting SOFC for simultaneous production of ethylene and power from ethane. Chemical Communications, 2010, 46, 2052. | 4.1 | 31 |

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| 37 | Mechanistic understanding of pH effects on the oxygen evolution reaction. Electrochimica Acta, 2022, 405, 139810. | 5.2 | 31 |
| 38 | Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Anolyte. Journal of the Electrochemical Society, 2021, 168, 084512. | 2.9 | 28 |
| 39 | Integrated Membrane-Electrode-Assembly Photoelectrochemical Cell under Various Feed Conditions for Solar Water Splitting. Journal of the Electrochemical Society, 2019, 166, H3020-H3028. | 2.9 | 25 |
| 40 | Thin Film Approach to Single Crystalline Electrochemistry. Journal of Physical Chemistry C, 2013, 117, 23790-23796. | 3.1 | 22 |
| 41 | Application of X-ray photoelectron spectroscopy to studies of electrodes in fuel cells and electrolyzers. Journal of Electron Spectroscopy and Related Phenomena, 2019, 231, 127-139. | 1.7 | 21 |
| 42 | PEM Electrolysis, a Forerunner for Clean Hydrogen. Electrochemical Society Interface, 2021, 30, 67-72. | 0.4 | 20 |
| 43 | An Algorithm for the Extraction of Tafel Slopes. Journal of Physical Chemistry C, 2019, 123, 30252-30264. | 3.1 | 19 |
| 44 | Editors' Choiceâ€"A Monolithic Photoelectrochemical Device Evolving Hydrogen in Pure Water. Journal of the Electrochemical Society, 2019, 166, H656-H661. | 2.9 | 16 |
| 45 | Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Catholyte. Journal of the Electrochemical Society, 2022, 169, 024510. | 2.9 | 15 |
| 46 | Membraneâ€electrode assembly design parameters for optimal CO<sub>2</sub> reduction. Electrochemical Science Advances, 2023, 3, . | 2.8 | 14 |
| 47 | Emergent Degradation Phenomena Demonstrated on Resilient, Flexible, and Scalable Integrated Photoelectrochemical Cells. Advanced Energy Materials, 2020, 10, 2002706. | 19.5 | 8 |
| 48 | Longâ€Term Operation of Nbâ€Coated Stainless Steel Bipolar Plates for Proton Exchange Membrane Water Electrolyzers. Advanced Energy and Sustainability Research, 2022, 3, . | 5.8 | 8 |
| 49 | Determining the Electrochemically Active Area of IrO<sub>x</sub> Powder Catalysts in an Operating Proton Exchange Membrane Electrolyzer. ECS Transactions, 2015, 69, 877-881. | 0.5 | 6 |
| 50 | Mass-Transport Resistances of Acid and Alkaline Ionomer Layers: A Microelectrode Study Part 1 - Microelectrode Development. ECS Transactions, 2019, 92, 77-85. | 0.5 | 6 |
| 51 | Performance and Durability of Proton Exchange Membrane Vapor-Fed Unitized Regenerative Fuel Cells. Journal of the Electrochemical Society, 2022, 169, 054514. | 2.9 | 6 |
| 52 | Methodâ€"Using Microelectrodes to Explore Solid Polymer Electrolytes. Journal of the Electrochemical Society, 2021, 168, 056517. | 2.9 | 5 |
| 53 | fuelcell: A Python package and graphical user interface for electrochemical data analysis. Journal of Open Source Software, 2021, 6, 2940. | 4.6 | 2 |
| 54 | Hydrogenâ€™s Big Shot. Electrochemical Society Interface, 2021, 30, 40-41. | 0.4 | 1 |

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|---|---|---|---|
| 55 | Frontispiece: Using Surface Segregation To Design Stable Ru-Ir Oxides for the Oxygen Evolution Reaction in Acidic Environments. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a. | 13.8 | 0 |
| 56 | Water Splitting: Emergent Degradation Phenomena Demonstrated on Resilient, Flexible, and Scalable Integrated Photoelectrochemical Cells (Adv. Energy Mater. 48/2020). Advanced Energy Materials, 2020, 10, 2070197. | 19.5 | 0 |
| 57 | Influence of Proton Activity in H<sub>2</sub>/H<sub>2</sub> Cells: Implications for Fuel-Cell Operation with Low Relative Humidities. Journal of the Electrochemical Society, 2021, 168, 064509. | 2.9 | 0 |