Nemanja Danilovic

List of Publications by Year
in descending order

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57 papers	6,767 citations	136740 32 h-index	155451 55 g-index
59 all docs	59 docs citations	59 times ranked	8193 citing authors

#	Article	IF	Citations
1	Membraneâ€electrode assembly design parameters for optimal CO₂ reduction. Electrochemical Science Advances, 2023, 3, .	1.2	14
2	Mechanistic understanding of pH effects on the oxygen evolution reaction. Electrochimica Acta, 2022, 405, 139810.	2.6	31
3	Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Catholyte. Journal of the Electrochemical Society, 2022, 169, 024510.	1.3	15
4	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.	10.8	48
5	Performance and Durability of Proton Exchange Membrane Vapor-Fed Unitized Regenerative Fuel Cells. Journal of the Electrochemical Society, 2022, 169, 054514.	1.3	6
6	Longâ€Term Operation of Nbâ€Coated Stainless Steel Bipolar Plates for Proton Exchange Membrane Water Electrolyzers. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	8
7	fuelcell: A Python package and graphical user interface for electrochemical data analysis. Journal of Open Source Software, 2021, 6, 2940.	2.0	2
8	Methodâ€"Using Microelectrodes to Explore Solid Polymer Electrolytes. Journal of the Electrochemical Society, 2021, 168, 056517.	1.3	5
9	Influence of Proton Activity in H₂/H₂ Cells: Implications for Fuel-Cell Operation with Low Relative Humidities. Journal of the Electrochemical Society, 2021, 168, 064509.	1.3	0
10	Nanoporous Iridium Nanosheets for Polymer Electrolyte Membrane Electrolysis. Advanced Energy Materials, 2021, 11, 2101438.	10.2	40
11	Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Anolyte. Journal of the Electrochemical Society, 2021, 168, 084512.	1.3	28
12	Insights into Interfacial and Bulk Transport Phenomena Affecting Proton Exchange Membrane Water Electrolyzer Performance at Ultraâ€Low Iridium Loadings. Advanced Science, 2021, 8, e2102950.	5.6	41
13	Hydrogenâ€™s Big Shot. Electrochemical Society Interface, 2021, 30, 40-41.	0.3	1
14	PEM Electrolysis, a Forerunner for Clean Hydrogen. Electrochemical Society Interface, 2021, 30, 67-72.	0.3	20
15	Interfacial analysis of a PEM electrolyzer using X-ray computed tomography. Sustainable Energy and Fuels, 2020, 4, 921-931.	2.5	44
16	The Role of Water in Vapor-fed Proton-Exchange-Membrane Electrolysis. Journal of the Electrochemical Society, 2020, 167, 104508.	1.3	34
17	Pathway to Complete Energy Sector Decarbonization with Available Iridium Resources using Ultralow Loaded Water Electrolyzers. ACS Applied Materials & Interfaces, 2020, 12, 52701-52712.	4.0	52
18	Observation of Preferential Pathways for Oxygen Removal through Porous Transport Layers of Polymer Electrolyte Water Electrolyzers. IScience, 2020, 23, 101783.	1.9	39

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19	Emergent Degradation Phenomena Demonstrated on Resilient, Flexible, and Scalable Integrated Photoelectrochemical Cells. Advanced Energy Materials, 2020, 10, 2002706.	10.2	8
20	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.	15.6	43
21	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.	5.5	33
22	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.	10.2	0
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.	15.6	57
24	An Algorithm for the Extraction of Tafel Slopes. Journal of Physical Chemistry C, 2019, 123, 30252-30264.	1.5	19
25	Editors' Choiceâ€”A Monolithic Photoelectrochemical Device Evolving Hydrogen in Pure Water. Journal of the Electrochemical Society, 2019, 166, H656-H661.	1.3	16
26	Perspectives on Low-Temperature Electrolysis and Potential for Renewable Hydrogen at Scale. Annual Review of Chemical and Biomolecular Engineering, 2019, 10, 219-239.	3.3	223
27	Initial approaches in benchmarking and round robin testing for proton exchange membrane water electrolyzers. International Journal of Hydrogen Energy, 2019, 44, 9174-9187.	3.8	80
28	A non-precious metal hydrogen catalyst in a commercial polymer electrolyte membrane electrolyser. Nature Nanotechnology, 2019, 14, 1071-1074.	15.6	209
29	Mass-Transport Resistances of Acid and Alkaline Ionomer Layers: A Microelectrode Study Part 1 - Microelectrode Development. ECS Transactions, 2019, 92, 77-85.	0.3	6
30	Integrated Membrane-Electrode-Assembly Photoelectrochemical Cell under Various Feed Conditions for Solar Water Splitting. Journal of the Electrochemical Society, 2019, 166, H3020-H3028.	1.3	25
31	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.	5.5	189
32	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.	0.8	21
33	Highly Active Nanoperovskite Catalysts for Oxygen Evolution Reaction: Insights into Activity and Stability of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{2+Î´} and PrBaCo₂O_{5+Î´}. Advanced Functional Materials, 2018, 28, 1804355.	7.8	63
34	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.	10.8	131
35	Dynamic surface self-reconstruction is the key of highly active perovskite nano-electrocatalysts for water splitting. Nature Materials, 2017, 16, 925-931.	13.3	696
36	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. Nature Communications, 2017, 8, 1449.	5.8	250

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37	(Plenary) Challenges in Going from Laboratory to Megawatt Scale PEM Electrolysis. ECS Transactions, 2016, 75, 395-402.	0.3	34
38	Pathways to ultra-low platinum group metal catalyst loading in proton exchange membrane electrolyzers. Catalysis Today, 2016, 262, 121-132.	2.2	129
39	Design of active and stable Coâ€"Moâ€"Sx chalcogels as pH-universal catalysts for the hydrogen evolution reaction. Nature Materials, 2016, 15, 197-203.	13.3	825
40	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.	15.6	81
41	Calculating the Electrochemically Active Surface Area of Iridium Oxide in Operating Proton Exchange Membrane Electrolyzers. Journal of the Electrochemical Society, 2015, 162, F1292-F1298.	1.3	88
42	Determining the Electrochemically Active Area of IrO_x Powder Catalysts in an Operating Proton Exchange Membrane Electrolyzer. ECS Transactions, 2015, 69, 877-881.	0.3	6
43	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.	3.2	395
44	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.	7.2	0
45	Activityâ€"stability relationship in the surface electrochemistry of the oxygen evolution reaction. Faraday Discussions, 2014, 176, 125-133.	1.6	83
46	Activityâ€"Stability Trends for the Oxygen Evolution Reaction on Monometallic Oxides in Acidic Environments. Journal of Physical Chemistry Letters, 2014, 5, 2474-2478.	2.1	569
47	Functional links between stability and reactivity of strontium ruthenate single crystals during oxygen evolution. Nature Communications, 2014, 5, 4191.	5.8	252
48	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.	7.2	331
49	Improving the hydrogen oxidation reaction rate by promotion of hydroxyl adsorption. Nature Chemistry, 2013, 5, 300-306.	6.6	945
50	Thin Film Approach to Single Crystalline Electrochemistry. Journal of Physical Chemistry C, 2013, 117, 23790-23796.	1.5	22
51	Electrocatalysis of the HER in acid and alkaline media. Journal of the Serbian Chemical Society, 2013, 78, 2007-2015.	0.4	141
52	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.	1.5	59
53	Origin of Anomalous Activities for Electrocatalysts in Alkaline Electrolytes. Journal of Physical Chemistry C, 2012, 116, 22231-22237.	1.5	71
54	An integral proton conducting SOFC for simultaneous production of ethylene and power from ethane. Chemical Communications, 2010, 46, 2052.	2.2	31

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55	Correlation of Fuel Cell Anode Electrocatalytic and ex situ Catalytic Activity of Perovskites La_{0.75}Sr_{0.25}Cr_{0.5}X_{0.5}O_{3â^'Î´} (X = Ti, Mn, Fe,) Tj ET Qq1 1 0.784314	3.2	6.8
56	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.	4.0	33
57	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.	4.0	45