Nemanja Danilovic

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.

54 papers	4,565 citations	26 h-index	59 g-index
59 ext. papers	5,587 ext. citations	10.4 avg, IF	5.4 L-index

#	Paper	IF	Citations
54	Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Catholyte. *Journal of the Electrochemical Society*, **2022**, 169, 024510	3.9	2
53	Mechanistic understanding of pH effects on the oxygen evolution reaction. *Electrochimica Acta*, **2022**, 405, 139810	6.7	3
52	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	21.8	4
51	Performance and Durability of Proton Exchange Membrane Vapor-Fed Unitized Regenerative Fuel Cells. *Journal of the Electrochemical Society*, **2022**, 169, 054514	3.9	0
50	fuelcell: A Python package and graphical user interface for electrochemical data analysis. *Journal of Open Source Software*, **2021**, 6, 2940	5.2	1
49	Method□Using Microelectrodes to Explore Solid Polymer Electrolytes. *Journal of the Electrochemical Society*, **2021**, 168, 056517	3.9	1
48	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	3.9	
47	Nanoporous Iridium Nanosheets for Polymer Electrolyte Membrane Electrolysis. *Advanced Energy Materials*, **2021**, 11, 2101438	21.8	7
46	Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Anolyte. *Journal of the Electrochemical Society*, **2021**, 168, 084512	3.9	6
45	Insights into Interfacial and Bulk Transport Phenomena Affecting Proton Exchange Membrane Water Electrolyzer Performance at Ultra-Low Iridium Loadings. *Advanced Science*, **2021**, 8, e2102950	13.6	4
44	A low temperature unitized regenerative fuel cell realizing 60% round trip efficiency and 10 000 cycles of durability for energy storage applications. *Energy and Environmental Science*, **2020**, 13, 2096-2105	35.4	25
43	Interfacial analysis of a PEM electrolyzer using X-ray computed tomography. *Sustainable Energy and Fuels*, **2020**, 4, 921-931	5.8	14
42	The Role of Water in Vapor-fed Proton-Exchange-Membrane Electrolysis. *Journal of the Electrochemical Society*, **2020**, 167, 104508	3.9	15
41	Pathway to Complete Energy Sector Decarbonization with Available Iridium Resources using Ultralow Loaded Water Electrolyzers. *ACS Applied Materials & Interfaces*, **2020**, 12, 52701-52712	9.5	16
40	Observation of Preferential Pathways for Oxygen Removal through Porous Transport Layers of Polymer Electrolyte Water Electrolyzers. *IScience*, **2020**, 23, 101783	6.1	8
39	Emergent Degradation Phenomena Demonstrated on Resilient, Flexible, and Scalable Integrated Photoelectrochemical Cells. *Advanced Energy Materials*, **2020**, 10, 2002706	21.8	3
38	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	35.4	14

37	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	13.1	14
36	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	21.8	
35	EditorsTChoice A Monolithic Photoelectrochemical Device Evolving Hydrogen in Pure Water. *Journal of the Electrochemical Society*, **2019**, 166, H656-H661	3.9	10
34	Perspectives on Low-Temperature Electrolysis and Potential for Renewable Hydrogen at Scale. *Annual Review of Chemical and Biomolecular Engineering*, **2019**, 10, 219-239	8.9	118
33	Initial approaches in benchmarking and round robin testing for proton exchange membrane water electrolyzers. *International Journal of Hydrogen Energy*, **2019**, 44, 9174-9187	6.7	48
32	An Algorithm for the Extraction of Tafel Slopes. *Journal of Physical Chemistry C*, **2019**, 123, 30252-30264	3.8	5
31	A non-precious metal hydrogen catalyst in a commercial polymer electrolyte membrane electrolyser. *Nature Nanotechnology*, **2019**, 14, 1071-1074	28.7	87
30	Mass-Transport Resistances of Acid and Alkaline Ionomer Layers: A Microelectrode Study Part 1 - Microelectrode Development. *ECS Transactions*, **2019**, 92, 77-85	1	2
29	Integrated Membrane-Electrode-Assembly Photoelectrochemical Cell under Various Feed Conditions for Solar Water Splitting. *Journal of the Electrochemical Society*, **2019**, 166, H3020-H3028	3.9	20
28	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	13.1	89
27	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	13
26	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	21.8	72
25	Highly Active Nanoperovskite Catalysts for Oxygen Evolution Reaction: Insights into Activity and Stability of Ba0.5Sr0.5Co0.8Fe0.2O2+ and PrBaCo2O5+ *Advanced Functional Materials*, **2018**, 28, 1804355	15.6	41
24	Dynamic surface self-reconstruction is the key of highly active perovskite nano-electrocatalysts for water splitting. *Nature Materials*, **2017**, 16, 925-931	27	467
23	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. *Nature Communications*, **2017**, 8, 1449	17.4	168
22	Pathways to ultra-low platinum group metal catalyst loading in proton exchange membrane electrolyzers. *Catalysis Today*, **2016**, 262, 121-132	5.3	93
21	Design of active and stable Co-Mo-Sx chalcogels as pH-universal catalysts for the hydrogen evolution reaction. *Nature Materials*, **2016**, 15, 197-203	27	683
20	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	35.4	64

19	(Plenary) Challenges in Going from Laboratory to Megawatt Scale PEM Electrolysis. *ECS Transactions*, **2016**, 75, 395-402	1	25
18	Calculating the Electrochemically Active Surface Area of Iridium Oxide in Operating Proton Exchange Membrane Electrolyzers. *Journal of the Electrochemical Society*, **2015**, 162, F1292-F1298	3.9	56
17	Determining the Electrochemically Active Area of IrOx Powder Catalysts in an Operating Proton Exchange Membrane Electrolyzer. *ECS Transactions*, **2015**, 69, 877-881	1	4
16	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	9.6	307
15	Using Surface Segregation To Design Stable Ru-Ir Oxides for the Oxygen Evolution Reaction in Acidic Environments. *Angewandte Chemie*, **2014**, 126, 14240-14245	3.6	37
14	Activity-Stability Trends for the Oxygen Evolution Reaction on Monometallic Oxides in Acidic Environments. *Journal of Physical Chemistry Letters*, **2014**, 5, 2474-8	6.4	416
13	Functional links between stability and reactivity of strontium ruthenate single crystals during oxygen evolution. *Nature Communications*, **2014**, 5, 4191	17.4	208
12	Using surface segregation to design stable Ru-Ir oxides for the oxygen evolution reaction in acidic environments. *Angewandte Chemie - International Edition*, **2014**, 53, 14016-21	16.4	260
11	Activity-stability relationship in the surface electrochemistry of the oxygen evolution reaction. *Faraday Discussions*, **2014**, 176, 125-33	3.6	65
10	Improving the hydrogen oxidation reaction rate by promotion of hydroxyl adsorption. *Nature Chemistry*, **2013**, 5, 300-6	17.6	675
9	Thin Film Approach to Single Crystalline Electrochemistry. *Journal of Physical Chemistry C*, **2013**, 117, 23790-23796	3.8	21
8	Electrocatalysis of the HER in acid and alkaline media. *Journal of the Serbian Chemical Society*, **2013**, 78, 2007-2015	0.9	103
7	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	2.7	49
6	Origin of Anomalous Activities for Electrocatalysts in Alkaline Electrolytes. *Journal of Physical Chemistry C*, **2012**, 116, 22231-22237	3.8	61
5	An integral proton conducting SOFC for simultaneous production of ethylene and power from ethane. *Chemical Communications*, **2010**, 46, 2052-4	5.8	26
4	Correlation of Fuel Cell Anode Electrocatalytic and ex situ Catalytic Activity of Perovskites La0.75Sr0.25Cr0.5X0.5O3□(X = Ti, Mn, Fe, Co). *Chemistry of Materials*, **2010**, 22, 957-965	9.6	60
3	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	8.9	32
2	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	8.9	43

1	Long-Term Operation of Nb-Coated Stainless Steel Bipolar Plates for Proton Exchange Membrane Water Electrolyzers. *Advanced Energy and Sustainability Research*,2200024	1.6	0