Iryna V Zenyuk

List of Publications by Year in descending order

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133	3,967	34	59
papers	citations	h-index	g-index
135	135	135	3051 citing authors
all docs	docs citations	times ranked	

#	Article	IF	CITATIONS
1	A Critical Review of Modeling Transport Phenomena in Polymer-Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2014, 161, F1254-F1299.	1.3	444
2	Identification of durable and non-durable FeNx sites in Fe–N–C materials for proton exchange membrane fuel cells. Nature Catalysis, 2021, 4, 10-19.	16.1	368
3	Gas-diffusion-layer structural properties under compression via X-ray tomography. Journal of Power Sources, 2016, 328, 364-376.	4.0	204
4	Platinum group metal-free NiMo hydrogen oxidation catalysts: high performance and durability in alkaline exchange membrane fuel cells. Journal of Materials Chemistry A, 2017, 5, 24433-24443.	5.2	161
5	Probing water distribution in compressed fuel-cell gas-diffusion layers using X-ray computed tomography. Electrochemistry Communications, 2015, 53, 24-28.	2.3	141
6	Understanding Impacts of Catalyst-Layer Thickness on Fuel-Cell Performance via Mathematical Modeling. Journal of the Electrochemical Society, 2016, 163, F691-F703.	1.3	127
7	Using operando techniques to understand and design high performance and stable alkaline membrane fuel cells. Nature Communications, 2020, $11,3561$.	5.8	113
8	Nickel–copper supported on a carbon black hydrogen oxidation catalyst integrated into an anion-exchange membrane fuel cell. Sustainable Energy and Fuels, 2018, 2, 2268-2275.	2.5	102
9	Analysis of representative elementary volume and through-plane regional characteristics of carbon-fiber papers: diffusivity, permeability and electrical/thermal conductivity. International Journal of Heat and Mass Transfer, 2018, 127, 687-703.	2.5	93
10	Investigating Evaporation in Gas Diffusion Layers for Fuel Cells with X-ray Computed Tomography. Journal of Physical Chemistry C, 2016, 120, 28701-28711.	1.5	79
11	The Role of Compressive Stress on Gas Diffusion Media Morphology and Fuel Cell Performance. ACS Applied Energy Materials, 2018, 1, 191-201.	2.5	66
12	Nano-structured platinum group metal-free catalysts and their integration in fuel cell electrode architectures. Applied Catalysis B: Environmental, 2018, 237, 1139-1147.	10.8	61
13	Operando X-ray tomography and sub-second radiography for characterizing transport in polymer electrolyte membrane electrolyzer. Electrochimica Acta, 2018, 276, 424-433.	2.6	60
14	Highly Durable and Selective Fe- and Mo-Based Atomically Dispersed Electrocatalysts for Nitrate Reduction to Ammonia via Distinct and Synergized NO $<$ sub $>2<$ /sub $><$ sup $>$ â \in " $<$ /sup $>$ Pathways. ACS Catalysis, 2022, 12, 6651-6662.	5 . 5	58
15	Micro-Scale Analysis of Liquid Water Breakthrough inside Gas Diffusion Layer for PEMFC Using X-ray Computed Tomography and Lattice Boltzmann Method. Journal of the Electrochemical Society, 2017, 164, E3359-E3371.	1.3	55
16	Direct observations of liquid water formation at nano- and micro-scale in platinum group metal-free electrodes by operando X-ray computed tomography. Materials Today Energy, 2018, 9, 187-197.	2.5	55
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	Investigating Phaseâ€Changeâ€Induced Flow in Gas Diffusion Layers in Fuel Cells with Xâ€ray Computed Tomography. Electrochimica Acta, 2017, 256, 279-290.	2.6	51

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19	Coupling continuum and pore-network models for polymer-electrolyte fuel cells. International Journal of Hydrogen Energy, 2015, 40, 16831-16845.	3.8	50
20	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
21	Anode-Design Strategies for Improved Performance of Polymer-Electrolyte Fuel Cells with Ultra-Thin Electrodes. Joule, 2018, 2, 1297-1312.	11.7	46
22	Continuum Modeling of Porous Electrodes for Electrochemical Synthesis. Chemical Reviews, 2022, 122, 11022-11084.	23.0	46
23	Implications of inherent inhomogeneities in thin carbon fiber-based gas diffusion layers: A comparative modeling study. Electrochimica Acta, 2019, 295, 861-874.	2.6	45
24	Understanding Water Transport in Polymer Electrolyte Fuel Cells Using Coupled Continuum and Poreâ€Network Models. Fuel Cells, 2016, 16, 725-733.	1.5	44
25	Interfacial analysis of a PEM electrolyzer using X-ray computed tomography. Sustainable Energy and Fuels, 2020, 4, 921-931.	2.5	44
26	Enhanced Water Management of Polymer Electrolyte Fuel Cells with Additive-Containing Microporous Layers. ACS Applied Energy Materials, 2018, 1, 6006-6017.	2.5	41
27	Fundamental Understanding of Water Movement in Gas Diffusion Layer under Different Arrangements Using Combination of Direct Modeling and Experimental Visualization. Journal of the Electrochemical Society, 2018, 165, F1115-F1126.	1.3	41
28	Designing the 3D Architecture of PGM-Free Cathodes for H ₂ /Air Proton Exchange Membrane Fuel Cells. ACS Applied Energy Materials, 2019, 2, 7211-7222.	2.5	41
29	Insights into Interfacial and Bulk Transport Phenomena Affecting Proton Exchange Membrane Water Electrolyzer Performance at Ultra‣ow Iridium Loadings. Advanced Science, 2021, 8, e2102950.	5.6	41
30	Elucidating Performance Limitations in Alkaline-Exchange- Membrane Fuel Cells. Journal of the Electrochemical Society, 2017, 164, E3583-E3591.	1.3	40
31	Observation of Preferential Pathways for Oxygen Removal through Porous Transport Layers of Polymer Electrolyte Water Electrolyzers. IScience, 2020, 23, 101783.	1.9	39
32	Modeling ion conduction and electrochemical reactions in water films on thin-film metal electrodes with application to low temperature fuel cells. Electrochimica Acta, 2014, 146, 194-206.	2.6	37
33	Direct Simulations of Pore-Scale Water Transport through Diffusion Media. Journal of the Electrochemical Society, 2019, 166, F3001-F3008.	1.3	37
34	Metal Oxide Clusters on Nitrogen-Doped Carbon are Highly Selective for CO ₂ Electroreduction to CO. ACS Catalysis, 2021, 11, 10028-10042.	5.5	37
35	X-ray computed tomography comparison of individual and parallel assembled commercial lithium iron phosphate batteries at end of life after high rate cycling. Journal of Power Sources, 2018, 381, 46-55.	4.0	36
36	Spatially Resolved Modeling of Electric Double Layers and Surface Chemistry for the Hydrogen Oxidation Reaction in Water-Filled Platinum–Carbon Electrodes. Journal of Physical Chemistry C, 2012, 116, 9862-9875.	1.5	35

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37	Computational and Experimental Analysis of Water Transport at Component Interfaces in Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2014, 161, F3091-F3103.	1.3	34
38	Proton transport in ionomer-free regions of polymer electrolyte fuel cells and implications for oxygen reduction reaction. Current Opinion in Electrochemistry, 2018, 12, 202-208.	2.5	31
39	Understanding the Role of Interfaces for Water Management in Platinum Group Metal-Free Electrodes in Polymer Electrolyte Fuel Cells. ACS Applied Energy Materials, 2019, 2, 3542-3553.	2.5	31
40	Catalysts by pyrolysis: Direct observation of chemical and morphological transformations leading to transition metal-nitrogen-carbon materials. Materials Today, 2021, 47, 53-68.	8.3	30
41	Thermal Conductivity and Compaction of GDL-MPL Interfacial Composite Material. Journal of the Electrochemical Society, 2018, 165, F514-F525.	1.3	25
42	Measurement of Contact Angles at Carbon Fiberâ€"Waterâ€"Air Triple-Phase Boundaries Inside Gas Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Diffusion Layers Using X-r	4.0	25
43	Probing Heterogeneous Degradation of Catalyst in PEM Fuel Cells under Realistic Automotive Conditions with Multiâ€Modal Techniques. Advanced Energy Materials, 2021, 11, 2101794.	10.2	25
44	Impact of Corrosion Conditions on Carbon Paper Electrode Morphology and the Performance of a Vanadium Redox Flow Battery. Journal of the Electrochemical Society, 2019, 166, A353-A363.	1.3	24
45	Investigating Liquid Water Transport in Different Pore Structure of Gas Diffusion Layers for PEMFC Using Lattice Boltzmann Method. Journal of the Electrochemical Society, 2020, 167, 104516.	1.3	24
46	Mapping of Heterogeneous Catalyst Degradation in Polymer Electrolyte Fuel Cells. Advanced Energy Materials, 2020, 10, 2000623.	10.2	24
47	Investigation of cathode catalyst layer interfaces evolution during accelerated stress tests for polymer electrolyte fuel cells. Applied Catalysis B: Environmental, 2022, 301, 120810.	10.8	24
48	Water Management in an Alkaline-Exchange-Membrane Fuel Cell. ECS Transactions, 2015, 69, 985-994.	0.3	23
49	Imaging ionomer in fuel cell catalyst layers with synchrotron nano transmission x-ray microscopy. Solid State Ionics, 2019, 335, 38-46.	1.3	23
50	Catalysts by pyrolysis: Direct observation of transformations during re-pyrolysis of transition metal-nitrogen-carbon materials leading to state-of-the-art platinum group metal-free electrocatalyst. Materials Today, 2022, 53, 58-70.	8.3	23
51	The Impact of Reaction on the Effective Properties of Multiscale Catalytic Porous Media: A Case of Polymer Electrolyte Fuel Cells. Transport in Porous Media, 2019, 128, 363-384.	1.2	22
52	Determining Proton Transport in Pseudo Catalyst Layers Using Hydrogen Pump DC and AC Techniques. Journal of the Electrochemical Society, 2020, 167, 084521.	1.3	22
53	Bridging X-ray computed tomography and computational modeling for electrochemical energy-conversion and –storage. Current Opinion in Electrochemistry, 2019, 13, 78-85.	2,5	20
54	Silk Fibroinâ€Carbon Nanotube Composite Electrodes for Flexible Biocatalytic Fuel Cells. Advanced Electronic Materials, 2016, 2, 1600190.	2.6	19

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55	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Ptâ€based Electrocatalysts – Part I: Highâ€loading Pt/C and Pt Extended Surface. ChemPhysChem, 2020, 21, 469-475.	1.0	19
56	Linking Perfluorosulfonic Acid Ionomer Chemistry and High-Current Density Performance in Fuel-Cell Electrodes. ACS Applied Materials & Samp; Interfaces, 2021, 13, 42579-42589.	4.0	19
57	Electrochemical top-down synthesis of C-supported Pt nano-particles with controllable shape and size: Mechanistic insights and application. Nano Research, 2021, 14, 2762-2769.	5.8	18
58	Experimental Study of Thermal Conductivity and Compression Measurements of the GDL-MPL Interfacial Composite Region. ECS Transactions, 2016, 75, 189-199.	0.3	17
59	On the Limitations of Volume-Averaged Descriptions of Gas Diffusion Layers in the Modeling of Polymer Electrolyte Fuel Cells. ECS Transactions, 2017, 80, 133-143.	0.3	17
60	Numerical Study of Electrochemical Kinetics and Mass Transport inside Nano-Structural Catalyst Layer of PEMFC Using Lattice Boltzmann Agglomeration Method. Journal of the Electrochemical Society, 2020, 167, 013516.	1.3	17
61	Development of low temperature fuel cell holders for Operando x-ray micro and nano computed tomography to visualize water distribution. JPhys Energy, 2020, 2, 044005.	2.3	15
62	Understanding Liquid-Water Management in PEFCs Using X-Ray Computed Tomography and Modeling. ECS Transactions, 2015, 69, 1253-1265.	0.3	14
63	Electrokinetic Streaming-Current Methods to Probe the Electrode–Electrolyte Interface under Applied Potentials. Journal of Physical Chemistry C, 2019, 123, 19493-19505.	1.5	14
64	Hierarchical TiN Nanostructured Thin Film Electrode for Highly Stable PEM Fuel Cells. ACS Applied Energy Materials, 2019, 2, 1911-1922.	2.5	14
65	"Confinement effects for nano-electrocatalysts for oxygen reduction reaction― Current Opinion in Electrochemistry, 2021, 25, 100634.	2.5	14
66	The Impact of Micro Porous Layer on Liquid Water Evolution inside PEMFC using Lattice Boltzmann Method. Journal of the Electrochemical Society, 2021, 168, 074507.	1.3	14
67	Reactive impinging-flow technique for polymer-electrolyte-fuel-cell electrode-defect detection. Journal of Power Sources, 2016, 332, 372-382.	4.0	13
68	Unique selectivity trends of highly permeable PAP[5] water channel membranes. Faraday Discussions, 2018, 209, 193-204.	1.6	13
69	"The development of a through-plane reactive excitation technique for detection of pinholes in membrane-containing MEA sub-assembliesâ€₁ International Journal of Hydrogen Energy, 2019, 44, 8533-8547.	3.8	13
70	A Numerical Study on the Impact of Cathode Catalyst Layer Loading on the Open Circuit Voltage in a Proton Exchange Membrane Fuel Cell. Journal of the Electrochemical Society, 2021, 168, 044519.	1.3	13
71	Numerical Predicting of Liquid Water Transport inside Gas Diffusion Layer for PEMFC Using Lattice Boltzmann Method. ECS Transactions, 2017, 80, 187-195.	0.3	12
72	Atomic Layer Deposition of Pt Nanoelectrode Array for Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F3081-F3088.	1.3	12

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73	Interpreting Ionic Conductivity for Polymer Electrolyte Fuel Cell Catalyst Layers with Electrochemical Impedance Spectroscopy and Transmission Line Modeling. Journal of the Electrochemical Society, 2021, 168, 054502.	1.3	12
74	Combined Infrared Thermography, X-ray Radiography, and Computed Tomography for Ink Drying Studies. ACS Applied Energy Materials, 2018, 1, 6101-6114.	2.5	10
75	Water management strategies for PGM-free catalyst layers for polymer electrolyte fuel cells. Current Opinion in Electrochemistry, 2021, 25, 100622.	2.5	10
76	Hybrid Lattice Boltzmann Agglomeration Method for Modeling Transport Phenomena in Polymer Electrolyte Membrane Fuel Cells. Journal of the Electrochemical Society, 2021, 168, 044508.	1.3	10
77	Correlating the morphological changes to electrochemical performance during carbon corrosion in polymer electrolyte fuel cells. Journal of Materials Chemistry A, 2022, 10, 12551-12562.	5.2	10
78	Bridging Scales to Model Reactive Diffusive Transport in Porous Media. Journal of the Electrochemical Society, 2020, 167, 013524.	1.3	9
79	Electrokinetic Streaming Current Method to Probe Polycrystalline Gold Electrode-Electrolyte Interface Under Applied Potentials. Journal of the Electrochemical Society, 2021, 168, 046511.	1.3	9
80	Spatially-Resolved Modeling of Electric Double Layers for the Oxygen Reduction Reaction in Water-Filled Platinum Electrodes. ECS Transactions, 2013, 58, 27-35.	0.3	7
81	Gas Diffusion Layers: Experimental and Modeling Approach for Morphological and Transport Properties. Accounts of Materials Research, 2022, 3, 416-425.	5.9	6
82	NGenE 2021: Electrochemistry Is Everywhere. ACS Energy Letters, 2022, 7, 368-374.	8.8	6
83	Electric Double Layer at the Polycrystalline Platinum–Electrolyte Interface Probed by the Electrokinetic Streaming Current Method. Journal of Physical Chemistry C, 2021, 125, 19706-19715.	1.5	5
84	Understanding Platinum Ionomer Interface Properties of Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2022, 169, 064512.	1.3	5
85	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Ptâ€based Electrocatalysts – Part II: Effect of Platinum Dispersion. ChemPhysChem, 2020, 21, 1331-1339.	1.0	4
86	Modeling Gas Diffusion Layers in Polymer Electrolyte Fuel Cells Using a Continuum-Based Pore-Network Formulation. ECS Transactions, 2020, 97, 615-626.	0.3	4
87	Electrochemical Flow Reactor for Cement Clinker Production. ECS Meeting Abstracts, 2021, MA2021-02, 840-840.	0.0	4
88	Numerical Study of Mass Transport and Electrochemical Kinetics inside Porous Structure Layers of PEMFC Using Direct Simulation Approach. ECS Transactions, 2019, 92, 39-46.	0.3	3
89	Modeling Ion Transport in Fuel Cell Electrodes including Water Electrolyte Interfaces and Electric Double Layers. ECS Transactions, 2011, 41, 179-188.	0.3	2
90	Coupling of Deterministic Contact Mechanics Model and Two-Phase Model to Study the Effect of Catalyst LayerÂMicroporous Layer Interface on Polymer Electrolyte Fuel Cell Performance. ECS Transactions, 2013, 58, 1125-1135.	0.3	2

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91	Electrochemical Characterization of Free-Standing Platinum Nanoelectrode Array Using Atomic Layer Deposition for Polymer Electrolyte Fuel Cells. ECS Transactions, 2016, 75, 747-755.	0.3	2
92	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Ptâ€based Electrocatalysts – Part I: Highâ€bading Pt/C and Pt Extended Surface. ChemPhysChem, 2020, 21, 468-468.	1.0	2
93	Pyrolysis of Metal Organic Frameworks (MOF): Transformations Leading to Formation of Transition Metal-Nitrogen-Carbon Catalysts. ECS Meeting Abstracts, 2021, MA2021-01, 476-476.	0.0	2
94	The bridge from bio-inspired molecular catalysts to fuel cell electrocatalysts. Chem Catalysis, 2021, 1, 12-13.	2.9	2
95	Ionic Liquid Modified Pt/C Electrocatalysts for the Oxygen Reduction Reaction in Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2155-2155.	0.0	2
96	Coupled continuum and network model framework to study catalyst layers of polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2022, 47, 17749-17761.	3.8	2
97	Measurement of Contact Angles at Carbon Fiber-Water-Air Triple Phase Boundaries inside Gas Diffusion Media of Polymer Electrolyte Membrane Fuel Cells from Xray Computed Tomography. ECS Meeting Abstracts, 2021, MA2021-01, 968-968.	0.0	1
98	Understanding Pyrolysis: Operandoand in Situcharacterization of Morphology and Composition Changes during Synthesis of M-N-C Electrocatalysts. ECS Meeting Abstracts, 2020, MA2020-02, 2156-2156.	0.0	1
99	Segmenting Water Observed with X-Ray Computed Tomography in Gas Diffusion Layers of Polymer Electrolyte Fuel Cells Using Convolutional Neural Networks. ECS Meeting Abstracts, 2020, MA2020-01, 1612-1612.	0.0	1
100	(Invited) High Efficiency PEM Water Electrolysis Enabled By Advanced Catalysts, Membranes and Processes. ECS Meeting Abstracts, 2020, MA2020-02, 2447-2447.	0.0	1
101	Applying the Lattice Boltzmann Method to Simulate Bubble Growth in Porous Media for PEM Water Electrolysis. ECS Meeting Abstracts, 2020, MA2020-02, 2472-2472.	0.0	1
102	Hydrogen's Big Shot. Electrochemical Society Interface, 2021, 30, 40-41.	0.3	1
103	The Influence of Gas Diffusion Media Morphology on Hydrogen Fuel Cell Performance. Materials Science Forum, 2018, 941, 2226-2231.	0.3	0
104	Correlating Effects of Catalyst Loading and Porous Transport Layer Morphologies on Operation of Polymer Electrolyte Water Electrolyzers. ECS Meeting Abstracts, 2021, MA2021-01, 1182-1182.	0.0	0
105	(Invited) Investigating Preferential Pathways for Oxygen Removal through Porous Transport Layers of Polymer Electrolyte Water Electrolyzer Using Operando X-Ray CT. ECS Meeting Abstracts, 2021, MA2021-01, 1186-1186.	0.0	0
106	(Energy Technology Division Supramaniam Srinivasan Young Investigator Award) Rethinking Catalyst Layer Design: Interplay between Activity and Durability for Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2021, MA2021-01, 1195-1195.	0.0	0
107	Modeling Gas Diffusion Layers in Polymer Electrolyte Fuel Cells Using a Continuum-based Pore-network Formulation. ECS Meeting Abstracts, 2020, MA2020-01, 1606-1606.	0.0	0
108	A Numerical Study on the Impact of Cathode Catalyst Layer Loading on the Open Circuit Voltage. ECS Meeting Abstracts, 2020, MA2020-01, 1677-1677.	0.0	0

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109	(Invited) In Situ Pyrolysis: Direct Observations of Transformations during Synthesis of M-N-C Electrocatalysts. ECS Meeting Abstracts, 2021, MA2021-02, 1137-1137.	0.0	0
110	Advanced Rechargeable Zinc-Air Batteries with Precious Metal Free Catalysts. ECS Meeting Abstracts, 2021, MA2021-02, 20-20.	0.0	0
111	Microscopy Studies of the Novel Fluorinated Ionomers for Proton Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2021, MA2021-02, 1037-1037.	0.0	0
112	Effect of Commercial Gas Diffusion Layers on Catalyst Durability of Polymer Electrolyte Fuel Cells in Varied Cathode Gas Environment. ECS Meeting Abstracts, 2021, MA2021-02, 1193-1193.	0.0	0
113	Coupling Lattice-Boltzmann and Finite Volume CFD Methods for Efficient Co-Simulation of Two-Phase Flow in the Porous Transport Layers of PEM Water Electrolyzers. ECS Meeting Abstracts, 2021, MA2021-02, 1228-1228.	0.0	0
114	Use of Pulsed RF Glow Discharge Optical Emission Spectroscopy for the Study of Elemental Distribution of Li-NMC Cathode at Various State of Charge in Li-Ion Batteries. ECS Meeting Abstracts, 2021, MA2021-02, 300-300.	0.0	0
115	Measurement and Dynamic Modeling of Hydrogen Separation from Hydrogen Enriched Natural Gas Using Phosphoric Acid Doped Polybenzimidazole Hydrogen Pump. ECS Meeting Abstracts, 2021, MA2021-02, 755-755.	0.0	0
116	Hybrid Lattice Boltzmann Agglomeration Method for Modeling Transport Phenomena in Catalyst Layer of Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2100-2100.	0.0	0
117	Combined Electrokinetic-Electrochemical Probe to Understand Electric Double Layer at Metal-Electrolyte Interface: Application to Polycrystalline Gold and Platinum. ECS Meeting Abstracts, 2020, MA2020-02, 2857-2857.	0.0	0
118	Interpreting Ionic Conductivity for Polymer Electrolyte Fuel Cell Catalyst Layers with Electrochemical Impedance Spectroscopy and Transmission Line Modeling. ECS Meeting Abstracts, 2020, MA2020-02, 3743-3743.	0.0	0
119	Investigating Liquid Water Transport in Different Pore Structure of Gas Diffusion Layers for PEMFC Using Lattice Boltzmann Method. ECS Meeting Abstracts, 2020, MA2020-02, 2105-2105.	0.0	0
120	Investigation of Liquid Water Formation in PEMFC By Direct Simulation and Operando X-Ray Computed Tomography. ECS Meeting Abstracts, 2020, MA2020-02, 2123-2123.	0.0	0
121	High O ₂ Permeability Ionomers for Improved Fuel Cell Performance. ECS Meeting Abstracts, 2020, MA2020-02, 2219-2219.	0.0	0
122	(Invited) Kinetic Isotope Effect As a Tool to Investigate the Oxygen Reduction Reaction on Pt-Based Electrocatalysts. ECS Meeting Abstracts, 2020, MA2020-02, 884-884.	0.0	0
123	Modeling Single and Two-Phase Transport in Thin Porous Layers Using a Composite Continuum-Pore Network Formulation. ECS Meeting Abstracts, 2020, MA2020-02, 3843-3843.	0.0	0
124	Mapping of Heterogeneous Catalyst Degradation in Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2163-2163.	0.0	0
125	Catalyst Degradation in Polymer Electrolyte Fuel Cells with Multi-Modal Techniques: Understanding Phenomena Under Varied Gas and Relative Humidity. ECS Meeting Abstracts, 2020, MA2020-02, 2325-2325.	0.0	0
126	High O2 Permeability Ionomers for Improved Fuel Cell Performance. ECS Meeting Abstracts, 2021, MA2021-02, 1187-1187.	0.0	0

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127	High Surface Area Pt/C Electrocatalyst Modification with Ionic Liquids for Improved Ionic Conductivity in Polymer Electrolyte Fuel Cell Catalyst Layer. ECS Meeting Abstracts, 2021, MA2021-02, 1019-1019.	0.0	0
128	Carbon Corrosion in Polymer Electrolyte Fuel Cells: A Complex Interplay between Morphological Changes and Electrochemical Performance. ECS Meeting Abstracts, 2021, MA2021-02, 1957-1957.	0.0	0
129	Evolution of Ionomer Coverage during Accelerated Stress Tests in Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2162-2162.	0.0	O
130	(Invited) Impact of Pore Morphology and Surface Hydrophobicity of the Carbon Matrix on the Macrokinetics of the Oxygen Reduction Reaction Performance for Atomically Dispersed Fe-N-C Catalysts. ECS Meeting Abstracts, 2022, MA2022-01, 633-633.	0.0	0
131	Electrochemical Trends of Atomically Dispersed Metal-Nitrogen-Carbon Materials As Oxygen Reduction Reaction Catalysts and Active Supports. ECS Meeting Abstracts, 2022, MA2022-01, 1472-1472.	0.0	0
132	(Invited) Understanding Oxygen Distribution in the Porous Transport Layer of Proton Exchange Membrane Water Electrolyzer (PEMWE) Using x-Ray Computed Tomogrpahy. ECS Meeting Abstracts, 2022, MA2022-01, 1758-1758.	0.0	0
133	The Role of Atomically Dispersed Transition Metal Centers for the Electrochemical Nitrate Reduction Reaction Towards Ammonia Synthesis. ECS Meeting Abstracts, 2022, MA2022-01, 1806-1806.	0.0	0