

Iryna V Zenyuk

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3167322/publications.pdf>

Version: 2024-02-01

133
papers

3,967
citations

117571

34
h-index

133188

59
g-index

135
all docs

135
docs citations

135
times ranked

3051
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of cathode catalyst layer interfaces evolution during accelerated stress tests for polymer electrolyte fuel cells. <i>Applied Catalysis B: Environmental</i> , 2022, 301, 120810.	10.8	24
2	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. <i>Materials Today</i> , 2022, 53, 58-70.	8.3	23
3	Gas Diffusion Layers: Experimental and Modeling Approach for Morphological and Transport Properties. <i>Accounts of Materials Research</i> , 2022, 3, 416-425.	5.9	6
4	Elucidating effects of catalyst loadings and porous transport layer morphologies on operation of proton exchange membrane water electrolyzers. <i>Applied Catalysis B: Environmental</i> , 2022, 308, 121213.	10.8	48
5	NGenE 2021: Electrochemistry Is Everywhere. <i>ACS Energy Letters</i> , 2022, 7, 368-374.	8.8	6
6	Coupled continuum and network model framework to study catalyst layers of polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 17749-17761.	3.8	2
7	Continuum Modeling of Porous Electrodes for Electrochemical Synthesis. <i>Chemical Reviews</i> , 2022, 122, 11022-11084.	23.0	46
8	Correlating the morphological changes to electrochemical performance during carbon corrosion in polymer electrolyte fuel cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 12551-12562.	5.2	10
9	Highly Durable and Selective Fe- and Mo-Based Atomically Dispersed Electrocatalysts for Nitrate Reduction to Ammonia via Distinct and Synergized NO ₂ ⁺ Pathways. <i>ACS Catalysis</i> , 2022, 12, 6651-6662.	5.5	58
10	Understanding Platinum Ionomer Interface Properties of Polymer Electrolyte Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2022, 169, 064512.	1.3	5
11	(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. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 633-633.	0.0	0
12	Electrochemical Trends of Atomically Dispersed Metal-Nitrogen-Carbon Materials As Oxygen Reduction Reaction Catalysts and Active Supports. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1472-1472.	0.0	0
13	(Invited) Understanding Oxygen Distribution in the Porous Transport Layer of Proton Exchange Membrane Water Electrolyzer (PEMWE) Using x-Ray Computed Tomography. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1758-1758.	0.0	0
14	The Role of Atomically Dispersed Transition Metal Centers for the Electrochemical Nitrate Reduction Reaction Towards Ammonia Synthesis. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1806-1806.	0.0	0
15	Identification of durable and non-durable Fe _{Nx} sites in Fe-N-C materials for proton exchange membrane fuel cells. <i>Nature Catalysis</i> , 2021, 4, 10-19.	16.1	368
16	Confinement effects for nano-electrocatalysts for oxygen reduction reaction. <i>Current Opinion in Electrochemistry</i> , 2021, 25, 100634.	2.5	14
17	Water management strategies for PGM-free catalyst layers for polymer electrolyte fuel cells. <i>Current Opinion in Electrochemistry</i> , 2021, 25, 100622.	2.5	10
18	A Numerical Study on the Impact of Cathode Catalyst Layer Loading on the Open Circuit Voltage in a Proton Exchange Membrane Fuel Cell. <i>Journal of the Electrochemical Society</i> , 2021, 168, 044519.	1.3	13

#	ARTICLE	IF	CITATIONS
19	Measurement of Contact Angles at Carbon Fiber-Water-Air Triple-Phase Boundaries Inside Gas Diffusion Layers Using X-ray Computed Tomography. ACS Applied Materials & Interfaces, 2021, 13, 20002-20013.	4.0	25
20	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
21	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
22	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
23	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
24	(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
25	(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
26	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
27	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
28	The bridge from bio-inspired molecular catalysts to fuel cell electrocatalysts. Chem Catalysis, 2021, 1, 12-13.	2.9	2
29	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
30	Probing Heterogeneous Degradation of Catalyst in PEM Fuel Cells under Realistic Automotive Conditions with Multi-Modal Techniques. Advanced Energy Materials, 2021, 11, 2101794.	10.2	25
31	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
32	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
33	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
34	Linking Perfluorosulfonic Acid Ionomer Chemistry and High-Current Density Performance in Fuel-Cell Electrodes. ACS Applied Materials & Interfaces, 2021, 13, 42579-42589.	4.0	19
35	Insights into Interfacial and Bulk Transport Phenomena Affecting Proton Exchange Membrane Water Electrolyzer Performance at Ultra-Low Iridium Loadings. Advanced Science, 2021, 8, e2102950.	5.6	41
36	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

#	ARTICLE	IF	CITATIONS
37	(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
38	Advanced Rechargeable Zinc-Air Batteries with Precious Metal Free Catalysts. ECS Meeting Abstracts, 2021, MA2021-02, 20-20.	0.0	0
39	Electrochemical Flow Reactor for Cement Clinker Production. ECS Meeting Abstracts, 2021, MA2021-02, 840-840.	0.0	4
40	Microscopy Studies of the Novel Fluorinated Ionomers for Proton Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2021, MA2021-02, 1037-1037.	0.0	0
41	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
42	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
43	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
44	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
45	High O ₂ Permeability Ionomers for Improved Fuel Cell Performance. ECS Meeting Abstracts, 2021, MA2021-02, 1187-1187.	0.0	0
46	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
47	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
48	Hydrogen's Big Shot. Electrochemical Society Interface, 2021, 30, 40-41.	0.3	1
49	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
50	Interfacial analysis of a PEM electrolyzer using X-ray computed tomography. Sustainable Energy and Fuels, 2020, 4, 921-931.	2.5	44
51	Bridging Scales to Model Reactive Diffusive Transport in Porous Media. Journal of the Electrochemical Society, 2020, 167, 013524.	1.3	9
52	Using operando techniques to understand and design high performance and stable alkaline membrane fuel cells. Nature Communications, 2020, 11, 3561.	5.8	113
53	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
54	Observation of Preferential Pathways for Oxygen Removal through Porous Transport Layers of Polymer Electrolyte Water Electrolyzers. IScience, 2020, 23, 101783.	1.9	39

#	ARTICLE	IF	CITATIONS
55	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
56	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
57	Mapping of Heterogeneous Catalyst Degradation in Polymer Electrolyte Fuel Cells. Advanced Energy Materials, 2020, 10, 2000623.	10.2	24
58	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Pt-based Electro-catalysts – Part I: High-loading Pt/C and Pt Extended Surface. ChemPhysChem, 2020, 21, 468-468.	1.0	2
59	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Pt-based Electro-catalysts – Part I: High-loading Pt/C and Pt Extended Surface. ChemPhysChem, 2020, 21, 469-475.	1.0	19
60	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Pt-based Electro-catalysts – Part II: Effect of Platinum Dispersion. ChemPhysChem, 2020, 21, 1331-1339.	1.0	4
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	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
63	Understanding Pyrolysis: Operando and in Situ characterization of Morphology and Composition Changes during Synthesis of M-N-C Electro-catalysts. ECS Meeting Abstracts, 2020, MA2020-02, 2156-2156.	0.0	1
64	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
65	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
66	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
67	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
68	Ionic Liquid Modified Pt/C Electro-catalysts for the Oxygen Reduction Reaction in Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2155-2155.	0.0	2
69	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
70	(Invited) High Efficiency PEM Water Electrolysis Enabled By Advanced Catalysts, Membranes and Processes. ECS Meeting Abstracts, 2020, MA2020-02, 2447-2447.	0.0	1
71	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
72	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

#	ARTICLE	IF	CITATIONS
73	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
74	High O ₂ Permeability Ionomers for Improved Fuel Cell Performance. ECS Meeting Abstracts, 2020, MA2020-02, 2219-2219.	0.0	0
75	(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
76	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
77	Mapping of Heterogeneous Catalyst Degradation in Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2163-2163.	0.0	0
78	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
79	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
80	Evolution of Ionomer Coverage during Accelerated Stress Tests in Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2162-2162.	0.0	0
81	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
82	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
83	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
84	Hierarchical TiN Nanostructured Thin Film Electrode for Highly Stable PEM Fuel Cells. ACS Applied Energy Materials, 2019, 2, 1911-1922.	2.5	14
85	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
86	Direct Simulations of Pore-Scale Water Transport through Diffusion Media. Journal of the Electrochemical Society, 2019, 166, F3001-F3008.	1.3	37
87	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
88	Atomic Layer Deposition of Pt Nanoelectrode Array for Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F3081-F3088.	1.3	12
89	Development of a through-plane reactive excitation technique for detection of pinholes in membrane-containing MEA sub-assemblies. International Journal of Hydrogen Energy, 2019, 44, 8533-8547.	3.8	13
90	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

#	ARTICLE	IF	CITATIONS
91	Imaging ionomer in fuel cell catalyst layers with synchrotron nano transmission x-ray microscopy. <i>Solid State Ionics</i> , 2019, 335, 38-46.	1.3	23
92	Bridging X-ray computed tomography and computational modeling for electrochemical energy-conversion and "storage. <i>Current Opinion in Electrochemistry</i> , 2019, 13, 78-85.	2.5	20
93	Implications of inherent inhomogeneities in thin carbon fiber-based gas diffusion layers: A comparative modeling study. <i>Electrochimica Acta</i> , 2019, 295, 861-874.	2.6	45
94	X-ray computed tomography comparison of individual and parallel assembled commercial lithium iron phosphate batteries at end of life after high rate cycling. <i>Journal of Power Sources</i> , 2018, 381, 46-55.	4.0	36
95	The Role of Compressive Stress on Gas Diffusion Media Morphology and Fuel Cell Performance. <i>ACS Applied Energy Materials</i> , 2018, 1, 191-201.	2.5	66
96	Anode-Design Strategies for Improved Performance of Polymer-Electrolyte Fuel Cells with Ultra-Thin Electrodes. <i>Joule</i> , 2018, 2, 1297-1312.	11.7	46
97	Operando X-ray tomography and sub-second radiography for characterizing transport in polymer electrolyte membrane electrolyzer. <i>Electrochimica Acta</i> , 2018, 276, 424-433.	2.6	60
98	Nano-structured platinum group metal-free catalysts and their integration in fuel cell electrode architectures. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 1139-1147.	10.8	61
99	Proton transport in ionomer-free regions of polymer electrolyte fuel cells and implications for oxygen reduction reaction. <i>Current Opinion in Electrochemistry</i> , 2018, 12, 202-208.	2.5	31
100	The Influence of Gas Diffusion Media Morphology on Hydrogen Fuel Cell Performance. <i>Materials Science Forum</i> , 2018, 941, 2226-2231.	0.3	0
101	Combined Infrared Thermography, X-ray Radiography, and Computed Tomography for Ink Drying Studies. <i>ACS Applied Energy Materials</i> , 2018, 1, 6101-6114.	2.5	10
102	Enhanced Water Management of Polymer Electrolyte Fuel Cells with Additive-Containing Microporous Layers. <i>ACS Applied Energy Materials</i> , 2018, 1, 6006-6017.	2.5	41
103	Fundamental Understanding of Water Movement in Gas Diffusion Layer under Different Arrangements Using Combination of Direct Modeling and Experimental Visualization. <i>Journal of the Electrochemical Society</i> , 2018, 165, F1115-F1126.	1.3	41
104	Thermal Conductivity and Compaction of GDL-MPL Interfacial Composite Material. <i>Journal of the Electrochemical Society</i> , 2018, 165, F514-F525.	1.3	25
105	Direct observations of liquid water formation at nano- and micro-scale in platinum group metal-free electrodes by operando X-ray computed tomography. <i>Materials Today Energy</i> , 2018, 9, 187-197.	2.5	55
106	Analysis of representative elementary volume and through-plane regional characteristics of carbon-fiber papers: diffusivity, permeability and electrical/thermal conductivity. <i>International Journal of Heat and Mass Transfer</i> , 2018, 127, 687-703.	2.5	93
107	Nickel-copper supported on a carbon black hydrogen oxidation catalyst integrated into an anion-exchange membrane fuel cell. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2268-2275.	2.5	102
108	Unique selectivity trends of highly permeable PAP[5] water channel membranes. <i>Faraday Discussions</i> , 2018, 209, 193-204.	1.6	13

#	ARTICLE	IF	CITATIONS
109	Micro-Scale Analysis of Liquid Water Breakthrough inside Gas Diffusion Layer for PEMFC Using X-ray Computed Tomography and Lattice Boltzmann Method. <i>Journal of the Electrochemical Society</i> , 2017, 164, E3359-E3371.	1.3	55
110	On the Limitations of Volume-Averaged Descriptions of Gas Diffusion Layers in the Modeling of Polymer Electrolyte Fuel Cells. <i>ECS Transactions</i> , 2017, 80, 133-143.	0.3	17
111	Numerical Predicting of Liquid Water Transport inside Gas Diffusion Layer for PEMFC Using Lattice Boltzmann Method. <i>ECS Transactions</i> , 2017, 80, 187-195.	0.3	12
112	Investigating Phase-Change-Induced Flow in Gas Diffusion Layers in Fuel Cells with X-ray Computed Tomography. <i>Electrochimica Acta</i> , 2017, 256, 279-290.	2.6	51
113	Elucidating Performance Limitations in Alkaline-Exchange-Membrane Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2017, 164, E3583-E3591.	1.3	40
114	Platinum group metal-free NiMo hydrogen oxidation catalysts: high performance and durability in alkaline exchange membrane fuel cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 24433-24443.	5.2	161
115	Understanding Water Transport in Polymer Electrolyte Fuel Cells Using Coupled Continuum and Pore-Network Models. <i>Fuel Cells</i> , 2016, 16, 725-733.	1.5	44
116	Reactive impinging-flow technique for polymer-electrolyte-fuel-cell electrode-defect detection. <i>Journal of Power Sources</i> , 2016, 332, 372-382.	4.0	13
117	Experimental Study of Thermal Conductivity and Compression Measurements of the GDL-MPL Interfacial Composite Region. <i>ECS Transactions</i> , 2016, 75, 189-199.	0.3	17
118	Electrochemical Characterization of Free-Standing Platinum Nanoelectrode Array Using Atomic Layer Deposition for Polymer Electrolyte Fuel Cells. <i>ECS Transactions</i> , 2016, 75, 747-755.	0.3	2
119	Gas-diffusion-layer structural properties under compression via X-ray tomography. <i>Journal of Power Sources</i> , 2016, 328, 364-376.	4.0	204
120	Investigating Evaporation in Gas Diffusion Layers for Fuel Cells with X-ray Computed Tomography. <i>Journal of Physical Chemistry C</i> , 2016, 120, 28701-28711.	1.5	79
121	Silk Fibroin-Carbon Nanotube Composite Electrodes for Flexible Biocatalytic Fuel Cells. <i>Advanced Electronic Materials</i> , 2016, 2, 1600190.	2.6	19
122	Understanding Impacts of Catalyst-Layer Thickness on Fuel-Cell Performance via Mathematical Modeling. <i>Journal of the Electrochemical Society</i> , 2016, 163, F691-F703.	1.3	127
123	Water Management in an Alkaline-Exchange-Membrane Fuel Cell. <i>ECS Transactions</i> , 2015, 69, 985-994.	0.3	23
124	Understanding Liquid-Water Management in PEFCs Using X-Ray Computed Tomography and Modeling. <i>ECS Transactions</i> , 2015, 69, 1253-1265.	0.3	14
125	Probing water distribution in compressed fuel-cell gas-diffusion layers using X-ray computed tomography. <i>Electrochemistry Communications</i> , 2015, 53, 24-28.	2.3	141
126	Coupling continuum and pore-network models for polymer-electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16831-16845.	3.8	50

#	ARTICLE	IF	CITATIONS
127	A Critical Review of Modeling Transport Phenomena in Polymer-Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2014, 161, F1254-F1299.	1.3	444
128	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
129	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
130	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
131	Coupling of Deterministic Contact Mechanics Model and Two-Phase Model to Study the Effect of Catalyst Layer-Microporous Layer Interface on Polymer Electrolyte Fuel Cell Performance. ECS Transactions, 2013, 58, 1125-1135.	0.3	2
132	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
133	Modeling Ion Transport in Fuel Cell Electrodes including Water Electrolyte Interfaces and Electric Double Layers. ECS Transactions, 2011, 41, 179-188.	0.3	2