Michael Ulsh

List of Publications by Year
in descending order

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33	731	567281 15	713466 21
papers	citations	h-index	g-index

35	35	35	525
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Toward Optimizing Electrospun Nanofiber Fuel Cell Catalyst Layers: Microstructure and Pt Accessibility. ACS Applied Energy Materials, 2021, 4, 3341-3351.	5.1	21
2	Visualization, understanding, and mitigation of process-induced-membrane irregularities in gas diffusion electrode-based polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2021, 46, 14699-14712.	7.1	20
3	A review of functions, attributes, properties and measurements for the quality control of proton exchange membrane fuel cell components. Journal of Power Sources, 2021, 491, 229540.	7.8	42
4	Toward Optimizing Electrospun Nanofiber Fuel Cell Catalyst Layers: Polymerâ€“Particle Interactions and Spinnability. ACS Applied Polymer Materials, 2021, 3, 2374-2384.	4.4	16
5	Microstructure Characterization of Iridium Oxide Catalyst for Polymer Electrolyte Membrane Water Electrolyzer Using X-Ray Scattering. ECS Meeting Abstracts, 2021, MA2021-01, 1967-1967.	0.0	0
6	Solvent absorption rate of perfluorosulphonic acid membranes towards understanding direct coating processes. International Journal of Hydrogen Energy, 2021, 46, 30239-30245.	7.1	3
7	Comparison of Anode-Catalyst-Layer Coating Methods for Low-Temperature Electrolysis. ECS Meeting Abstracts, 2021, MA2021-02, 1256-1256.	0.0	0
8	Impact of Polymeric Additives on Cathode Catalyst Layer Crack Mitigation. ECS Meeting Abstracts, 2021, MA2021-02, 1091-1091.	0.0	0
9	(Invited) Linking Ionomer/Electrocatalyst Interactions to Membrane Electrode Assembly Performance and Durability in Proton Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2021, MA2021-02, 1047-1047.	0.0	0
10	(Invited) Towards Addressing Fundamental Scale-up Questions for Low-Temperature Electrolysis Electrodes. ECS Meeting Abstracts, 2021, MA2021-02, 1364-1364.	0.0	0
11	Microstructure and Rheology of Ionomer Dispersions and Catalyst Inks for Low-Temperature Polymer Electrolyte Membrane Water Electrolyzers: Effect of Ionomer Equivalent Weight and Dispersion Media Composition. ECS Meeting Abstracts, 2021, MA2021-02, 1086-1086.	0.0	0
12	Investigation of Spray and Roll to Roll Coated Gas Diffusion Electrode Surface & Bulk Properties Using Microscopy and Spectroscopy. ECS Meeting Abstracts, 2021, MA2021-02, 1032-1032.	0.0	0
13	Effects of Processing Time, Mixing Speed, and Mixer on Agglomerates in Fuel Cell Cathode Inks. ECS Meeting Abstracts, 2021, MA2021-02, 1085-1085.	0.0	0
14	(Invited) A Functional Analysis of MEA Attributes and Properties for the Quality Control of Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2021, MA2021-02, 1064-1064.	0.0	0
15	Roll-to-roll production of catalyst coated membranes for low-temperature electrolyzers. Journal of Power Sources, 2020, 479, 228819.	7.8	32
16	Effect of Dispersion Medium Composition and Ionomer Concentration on the Microstructure and Rheology of Feâ€“Nâ€“C Platinum Group Metal-free Catalyst Inks for Polymer Electrolyte Membrane Fuel Cells. Langmuir, 2020, 36, 12247-12260.	3.5	27
17	Fabrication of high-performance gas-diffusion-electrode based membrane-electrode assemblies. Journal of Power Sources, 2020, 450, 227581.	7.8	33
18	Impact of electrode thick spot irregularities on polymer electrolyte membrane fuel cell initial performance. Journal of Power Sources, 2020, 466, 228344.	7.8	12

#	Article	IF	Citations
19	(Invited) Towards Addressing Fundamental Manufacturing Questions for Polymer Electrolyte Fuel Cell Electrodes. ECS Meeting Abstracts, 2020, MA2020-01, 2736-2736.	0.0	0
20	Impact of Catalyst Ink Dispersing Methodology on Fuel Cell Performance Using in-Situ X-ray Scattering. ACS Applied Energy Materials, 2019, 2, 6417-6427.	5.1	104
21	Impact of Microporous Layer Roughness on Gas-Diffusion-Electrode-Based Polymer Electrolyte Membrane Fuel Cell Performance. ACS Applied Energy Materials, 2019, 2, 7757-7761.	5.1	46
22	Investigation of the Microstructure and Rheology of Iridium Oxide Catalyst Inks for Low-Temperature Polymer Electrolyte Membrane Water Electrolyzers. ACS Applied Materials & Interfaces, 2019, 11, 45068-45079.	8.0	34
23	â€œThe development of a through-plane reactive excitation technique for detection of pinholes in membrane-containing MEA sub-assembliesâ€• International Journal of Hydrogen Energy, 2019, 44, 8533-8547.	7.1	13
24	Effective Electrode Edge Protection for Proton Exchange Membrane Fuel Cell Drive Cycle Operation. ECS Transactions, 2019, 92, 351-359.	0.5	9
25	Dictating Pt-Based Electrocatalyst Performance in Polymer Electrolyte Fuel Cells, from Formulation to Application. ACS Applied Materials & Interfaces, 2019, 11, 46953-46964.	8.0	80
26	Impacts of electrode coating irregularities on polymer electrolyte membrane fuel cell lifetime using quasi in-situ infrared thermography and accelerated stress testing. International Journal of Hydrogen Energy, 2018, 43, 6390-6399.	7.1	26
27	Rheological Investigation on the Microstructure of Fuel Cell Catalyst Inks. ACS Applied Materials & Interfaces, 2018, 10, 43610-43622.	8.0	96
28	Gravure Coating for Roll-to-Roll Manufacturing of Proton-Exchange-Membrane Fuel Cell Catalyst Layers. Journal of the Electrochemical Society, 2018, 165, F1012-F1018.	2.9	48
29	Reactive impinging-flow technique for polymer-electrolyte-fuel-cell electrode-defect detection. Journal of Power Sources, 2016, 332, 372-382.	7.8	13
30	High Throughput and High Resolution In-Line Monitoring of PEMFC Materials by Means of Visible Light Diffuse Reflectance Imaging and Computer Vision. , 2015, , .		1
31	Detecting and localizing failure points in proton exchange membrane fuel cells using IR thermography. Journal of Power Sources, 2014, 253, 224-229.	7.8	28
32	Rapid detection of defects in fuel-cell electrodes using infrared reactive-flow-through technique. Journal of Power Sources, 2014, 261, 401-411.	7.8	27
33	Process model for multilayer slide coating of polymer electrolyte membrane fuel cells. Journal of Coatings Technology Research, 0, , 1.	2.5	0