Brian P Setzler

List of Publications by Year
in descending order

38 papers	2,051 citations	567144 15 h-index	501076 28 g-index
38 all docs	38 docs citations	38 times ranked	2105 citing authors

#	Article	IF	Citations
1	Poly(aryl piperidinium) membranes and ionomers for hydroxide exchange membrane fuel cells. Nature Energy, 2019, 4, 392-398.	19.8	570
2	Activity targets for nanostructured platinum-group-metal-free catalysts in hydroxide exchange membrane fuel cells. Nature Nanotechnology, 2016, 11, 1020-1025.	15.6	282
3	An Efficient Direct Ammonia Fuel Cell for Affordable Carbon-Neutral Transportation. Joule, 2019, 3, 2472-2484.	11.7	227
4	A Roadmap to Lowâ€Cost Hydrogen with Hydroxide Exchange Membrane Electrolyzers. Advanced Materials, 2019, 31, e1805876.	11.1	184
5	Examination of Near-Electrode Concentration Gradients and Kinetic Impacts on the Electrochemical Reduction of CO₂ using Surface-Enhanced Infrared Spectroscopy. ACS Catalysis, 2018, 8, 3999-4008.	5.5	156
6	A highly-active, stable and low-cost platinum-free anode catalyst based on RuNi for hydroxide exchange membrane fuel cells. Nature Communications, 2020, 11, 5651.	5.8	142
7	Water-Fed Hydroxide Exchange Membrane Electrolyzer Enabled by a Fluoride-Incorporated Nickelâ€"Iron Oxyhydroxide Oxygen Evolution Electrode. ACS Catalysis, 2021, 11, 264-270.	5.5	101
8	A Physics-Based Impedance Model of Proton Exchange Membrane Fuel Cells Exhibiting Low-Frequency Inductive Loops. Journal of the Electrochemical Society, 2015, 162, F519-F530.	1.3	82
9	Elucidating the oxide growth mechanism on platinum at the cathode in PEM fuel cells. Physical Chemistry Chemical Physics, 2014, 16, 5301.	1.3	58
10	High-Performance Hydroxide Exchange Membrane Fuel Cells through Optimization of Relative Humidity, Backpressure and Catalyst Selection. Journal of the Electrochemical Society, 2019, 166, F3305-F3310.	1.3	49
11	Low-temperature direct ammonia fuel cells: Recent developments and remaining challenges. Current Opinion in Electrochemistry, 2020, 21, 335-344.	2.5	47
12	In-Situ Monitoring of Particle Growth at PEMFC Cathode under Accelerated Cycling Conditions. Electrochemical and Solid-State Letters, 2012, 15, B72.	2.2	28
13	A shorted membrane electrochemical cell powered by hydrogen to remove CO2 from the air feed of hydroxide exchange membrane fuel cells. Nature Energy, 2022, 7, 238-247.	19.8	24
14	A High-Performance Gas-Fed Direct Ammonia Hydroxide Exchange Membrane Fuel Cell. ACS Energy Letters, 2021, 6, 1996-2002.	8.8	22
15	A Direct Ammonia Fuel Cell with a KOH-Free Anode Feed Generating 180 mW cm^{âˆ'2} at 120 Â°C. Journal of the Electrochemical Society, 2020, 167, 134518.	1.3	19
16	Demonstration of Electrochemically-Driven CO₂ Separation Using Hydroxide Exchange Membranes. Journal of the Electrochemical Society, 2021, 168, 014501.	1.3	10
17	Improving Performance and Durability of Low Temperature Direct Ammonia Fuel Cells: Effect of Backpressure and Oxygen Reduction Catalysts. Journal of the Electrochemical Society, 2021, 168, 014507.	1.3	9
18	A General, Analytical Model for Flow Battery Costing and Design. Journal of the Electrochemical Society, 2018, 165, A2209-A2216.	1.3	7

#	Article	IF	Citations
19	A high-performance 75ÂW direct ammonia fuel cell stack. Cell Reports Physical Science, 2022, 3, 100829.	2.8	6
20	Understanding the Ebalance for water management in hydroxide exchange membrane fuel cells. Journal of Power Sources, 2022, 536, 231514.	4.0	6
21	Investigating the Solid Electrolyte Interphase Formed by Additive Reduction Using Physics-Based Modeling. Journal of the Electrochemical Society, 2016, 163, A2185-A2196.	1.3	5
22	Editorsâ€™ Choiceâ€"Uncovering the Role of Alkaline Pretreatment for Hydroxide Exchange Membrane Fuel Cells. Journal of the Electrochemical Society, 2020, 167, 144506.	1.3	5
23	Standard Operating Protocol for Ion-Exchange Capacity of Anion Exchange Membranes. Frontiers in Energy Research, 2022, 10, .	1.2	3
24	Investigating Changes in the Morphological Structure of High-Temperature, Calendar-Aged Li-Ion Cells. Journal of the Electrochemical Society, 2018, 165, A3125-A3135.	1.3	2
25	(Invited)ÂModeling of Carbon Dioxide Exposure and Mitigation in Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2019, MA2019-01, 1824-1824.	0.0	2
26	Study of Cathode Gas Diffusion Architecture for Improved Oxygen Transport in Hydroxide Exchange Membrane Fuel Cells. Journal of the Electrochemical Society, 0, , .	1.3	2
27	Surface Energy effects on Catalyst Degradation in Low-Temperature PEMFCs. ECS Transactions, 2011, 41, 751-759.	0.3	1
28	(Invited) Direct Ammonia Polymer Electrolyte Fuel Cell. ECS Meeting Abstracts, 2020, MA2020-01, 1817-1817.	0.0	1
29	Hydrogen-powered Electrochemically-driven CO₂ Removal from Air Containing 400 to 5000 ppm CO₂. Journal of the Electrochemical Society, 2022, 169, 073503.	1.3	1
30	Analysis and Optimization of Transport Losses in Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
31	(Invited) Updated Catalyst Activity Targets for Performance Parity in Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
32	Electrochemical Pumping for Carbon Dioxide Removal in Automotive Hydroxide Exchange Membrane Fuel Cell Systems. ECS Meeting Abstracts, 2019, , .	0.0	0
33	Investigation of Gas Diffusion Layer and Microporous Layer Effect on Water and Thermal Management in Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2021, MA2021-02, 1208-1208.	0.0	0
34	(Invited) Uncovering the Role of Alkaline Pretreatment for Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2374-2374.	0.0	0
35	Determination of Oxygen Transport Resistance through Limiting Current Analysis in Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2379-2379.	0.0	0
36	Development of Electrochemically-Driven CO2 Separator for Hydroxide Exchange Membrane Fuel Cells in Transportation Applications. ECS Meeting Abstracts, 2020, MA2020-02, 2227-2227.	0.0	0

#	Article	IF	Citations
37	(Invited) Electrochemical Separation of Carbon Dioxide Using Anion Exchange Membranes. ECS Meeting Abstracts, 2021, MA2021-02, 750-750.	0.0	0
38	Enhancing Electrochemically Driven CO2 Separator Using Hydroxide Exchange Membranes. ECS Meeting Abstracts, 2021, MA2021-02, 753-753.	0.0	0