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	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
2	A high-performance 75ÂW direct ammonia fuel cell stack. Cell Reports Physical Science, 2022, 3, 100829.	2.8	6
3	Standard Operating Protocol for Ion-Exchange Capacity of Anion Exchange Membranes. Frontiers in Energy Research, 2022, 10, .	1.2	3
4	Understanding the Ebalance for water management in hydroxide exchange membrane fuel cells. Journal of Power Sources, 2022, 536, 231514.	4.0	6
5	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
6	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
7	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
8	Demonstration of Electrochemically-Driven CO₂ Separation Using Hydroxide Exchange Membranes. Journal of the Electrochemical Society, 2021, 168, 014501.	1.3	10
9	A High-Performance Gas-Fed Direct Ammonia Hydroxide Exchange Membrane Fuel Cell. ACS Energy Letters, 2021, 6, 1996-2002.	8.8	22
10	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
11	(Invited) Electrochemical Separation of Carbon Dioxide Using Anion Exchange Membranes. ECS Meeting Abstracts, 2021, MA2021-02, 750-750.	0.0	0
12	Enhancing Electrochemically Driven CO2 Separator Using Hydroxide Exchange Membranes. ECS Meeting Abstracts, 2021, MA2021-02, 753-753.	0.0	0
13	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
14	Low-temperature direct ammonia fuel cells: Recent developments and remaining challenges. Current Opinion in Electrochemistry, 2020, 21, 335-344.	2.5	47
15	A Direct Ammonia Fuel Cell with a KOH-Free Anode Feed Generating 180 mW cm^{â^'2} at 120 Â°C. Journal of the Electrochemical Society, 2020, 167, 134518.	1.3	19
16	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
17	(Invited) Direct Ammonia Polymer Electrolyte Fuel Cell. ECS Meeting Abstracts, 2020, MA2020-01, 1817-1817.	0.0	1
18	(Invited) Uncovering the Role of Alkaline Pretreatment for Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2374-2374.	0.0	0

#	Article	IF	Citations
19	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
20	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
21	An Efficient Direct Ammonia Fuel Cell for Affordable Carbon-Neutral Transportation. Joule, 2019, 3, 2472-2484.	11.7	227
22	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
23	Poly(aryl piperidinium) membranes and ionomers for hydroxide exchange membrane fuel cells. Nature Energy, 2019, 4, 392-398.	19.8	570
24	A Roadmap to Lowâ€Cost Hydrogen with Hydroxide Exchange Membrane Electrolyzers. Advanced Materials, 2019, 31, e1805876.	11.1	184
25	Analysis and Optimization of Transport Losses in Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
26	(Invited) Updated Catalyst Activity Targets for Performance Parity in Hydroxide Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
27	Electrochemical Pumping for Carbon Dioxide Removal in Automotive Hydroxide Exchange Membrane Fuel Cell Systems. ECS Meeting Abstracts, 2019, , .	0.0	0
28	(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
29	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
30	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
31	A General, Analytical Model for Flow Battery Costing and Design. Journal of the Electrochemical Society, 2018, 165, A2209-A2216.	1.3	7
32	Activity targets for nanostructured platinum-group-metal-free catalysts in hydroxide exchange membrane fuel cells. Nature Nanotechnology, 2016, 11, 1020-1025.	15.6	282
33	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
34	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
35	Elucidating the oxide growth mechanism on platinum at the cathode in PEM fuel cells. Physical Chemistry Chemical Physics, 2014, 16, 5301.	1.3	58
36	In-Situ Monitoring of Particle Growth at PEMFC Cathode under Accelerated Cycling Conditions. Electrochemical and Solid-State Letters, 2012, 15, B72.	2.2	28

#	Article	IF	Citations
37	Surface Energy effects on Catalyst Degradation in Low-Temperature PEMFCs. ECS Transactions, 2011, 41, 751-759.	0.3	1
38	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