

Boris Bensmann

List of Publications by Year in descending order

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papers

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#	ARTICLE	IF	CITATIONS
1	The Effect of Cell Compression and Cathode Pressure on Hydrogen Crossover in PEM Water Electrolysis. <i>Journal of the Electrochemical Society</i> , 2022, 169, 014502.	1.3	19
2	An engineering perspective on the future role of modelling in proton exchange membrane water electrolysis development. <i>Current Opinion in Chemical Engineering</i> , 2022, 36, 100829.	3.8	3
3	Reference Electrodes in PEM Water Electrolysis – a Review and Experimental Investigation of Oxygen and Hydrogen Evolution Reaction Kinetics. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1372-1372.	0.0	0
4	Energetic Evaluation and Optimization of Hydrogen Generation and Compression Pathways Considering PEM Water Electrolyzers and Electrochemical Hydrogen Compressors. <i>Journal of the Electrochemical Society</i> , 2021, 168, 014504.	1.3	8
5	Communication – Proving the Importance of Pt-Interlayer Position in PEMWE Membranes for the Effective Reduction of the Anodic Hydrogen Content. <i>Journal of the Electrochemical Society</i> , 2021, 168, 094509.	1.3	6
6	Model-Based Analysis of Low Stoichiometry Operation in Proton Exchange Membrane Water Electrolysis. <i>Membranes</i> , 2021, 11, 696.	1.4	1
7	Evaluation of the Efficiency of an Elevated Temperature Proton Exchange Membrane Water Electrolysis System. <i>Journal of the Electrochemical Society</i> , 2021, 168, 094504.	1.3	15
8	On the Correlation between the Oxygen in Hydrogen Content and the Catalytic Activity of Cathode Catalysts in PEM Water Electrolysis. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1248-1248.	0.0	0
9	Ideal Positioning of a Pt-Interlayer for H ₂ -O ₂ -Recombination in Polymer Electrolyte Membrane Water Electrolysis. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1250-1250.	0.0	0
10	(Invited) Hydrogen Generation and Compression. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1107-1107.	0.0	0
11	Evaluation of the Efficiency of a High Temperature Proton Exchange Membrane Water Electrolysis System. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1105-1105.	0.0	0
12	Femtosecond laser-induced surface structuring of the porous transport layers in proton exchange membrane water electrolysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4898-4910.	5.2	24
13	Modeling Overpotentials Related to Mass Transport Through Porous Transport Layers of PEM Water Electrolysis Cells. <i>Journal of the Electrochemical Society</i> , 2020, 167, 114511.	1.3	31
14	Ortsaufgelöste Stromdichtemessung in PEM-Elektrolyse-Zellen. <i>Chemie-Ingenieur-Technik</i> , 2019, 91, 907-918.	0.4	4
15	Degradation of Proton Exchange Membrane (PEM) Water Electrolysis Cells: Looking Beyond the Cell Voltage Increase. <i>Journal of the Electrochemical Society</i> , 2019, 166, F645-F652.	1.3	50
16	Elucidating the Effect of Mass Transport Resistances on Hydrogen Crossover and Cell Performance in PEM Water Electrolyzers by Varying the Cathode Ionomer Content. <i>Journal of the Electrochemical Society</i> , 2019, 166, F465-F471.	1.3	54
17	Understanding Electrical Under- and Overshoots in Proton Exchange Membrane Water Electrolysis Cells. <i>Journal of the Electrochemical Society</i> , 2019, 166, F1200-F1208.	1.3	9
18	Effect of the MEA design on the performance of PEMWE single cells with different sizes. <i>Journal of Applied Electrochemistry</i> , 2018, 48, 701-711.	1.5	29

#	ARTICLE	IF	CITATIONS
19	Local Current Density and Electrochemical Impedance Measurements within 50 cm Single-Channel PEM Electrolysis Cell. Journal of the Electrochemical Society, 2018, 165, F1292-F1299.	1.3	39
20	Membrane Interlayer with Pt Recombination Particles for Reduction of the Anodic Hydrogen Content in PEM Water Electrolysis. Journal of the Electrochemical Society, 2018, 165, F1271-F1277.	1.3	51
21	Hydrogen Crossover in PEM and Alkaline Water Electrolysis: Mechanisms, Direct Comparison and Mitigation Strategies. Journal of the Electrochemical Society, 2018, 165, F502-F513.	1.3	144
22	Three-dimensional microstructure analysis of a polymer electrolyte membrane water electrolyzer anode. Journal of Power Sources, 2018, 393, 62-66.	4.0	38
23	Modelling and Designing Cryogenic Hydrogen Tanks for Future Aircraft Applications. Energies, 2018, 11, 105.	1.6	90
24	Conceptual Design of Operation Strategies for Hybrid Electric Aircraft. Energies, 2018, 11, 217.	1.6	118
25	Nonlinear Frequency Response of Electrochemical Methanol Oxidation Kinetics: A Theoretical Analysis. Journal of the Electrochemical Society, 2010, 157, B1279.	1.3	35
26	Model Simulation and Analysis of Proton Incorporation into the Positive Active Mass of a Lead/Acid Battery. Journal of the Electrochemical Society, 2010, 157, A243.	1.3	1
27	On the Correlation between the Oxygen in Hydrogen Content and the Catalytic Activity of Cathode Catalysts in PEM Water Electrolysis. Journal of the Electrochemical Society, 0, , .	1.3	2