

Boris Bensmann

List of Publications by Year in descending order

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604
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| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Hydrogen Crossover in PEM and Alkaline Water Electrolysis: Mechanisms, Direct Comparison and Mitigation Strategies. <i>Journal of the Electrochemical Society</i> , 2018, 165, F502-F513. | 1.3 | 144 |
| 2 | Conceptual Design of Operation Strategies for Hybrid Electric Aircraft. <i>Energies</i> , 2018, 11, 217. | 1.6 | 118 |
| 3 | Modelling and Designing Cryogenic Hydrogen Tanks for Future Aircraft Applications. <i>Energies</i> , 2018, 11, 105. | 1.6 | 90 |
| 4 | 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 |
| 5 | Membrane Interlayer with Pt Recombination Particles for Reduction of the Anodic Hydrogen Content in PEM Water Electrolysis. <i>Journal of the Electrochemical Society</i> , 2018, 165, F1271-F1277. | 1.3 | 51 |
| 6 | 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 |
| 7 | Local Current Density and Electrochemical Impedance Measurements within 50 cm Single-Channel PEM Electrolysis Cell. <i>Journal of the Electrochemical Society</i> , 2018, 165, F1292-F1299. | 1.3 | 39 |
| 8 | Three-dimensional microstructure analysis of a polymer electrolyte membrane water electrolyzer anode. <i>Journal of Power Sources</i> , 2018, 393, 62-66. | 4.0 | 38 |
| 9 | Nonlinear Frequency Response of Electrochemical Methanol Oxidation Kinetics: A Theoretical Analysis. <i>Journal of the Electrochemical Society</i> , 2010, 157, B1279. | 1.3 | 35 |
| 10 | 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 |
| 11 | 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 |
| 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 | 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 |
| 14 | 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 |
| 15 | 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 |
| 16 | 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 |
| 17 | Communicationâ€”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 |
| 18 | Ortsaufgelöste Stromdichtemessung in PEM-Elektrolyse-Zellen. <i>Chemie-Ingenieur-Technik</i> , 2019, 91, 907-918. | 0.4 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | 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 |
| 20 | On the Correlation between the Oxygen in Hydrogen Content and the Catalytic Activity of Cathode Catalysts in PEM Water Electrolysis. <i>Journal of the Electrochemical Society</i> , 0, , . | 1.3 | 2 |
| 21 | Model Simulation and Analysis of Proton Incorporation into the Positive Active Mass of a Lead/Acid Battery. <i>Journal of the Electrochemical Society</i> , 2010, 157, A243. | 1.3 | 1 |
| 22 | Model-Based Analysis of Low Stoichiometry Operation in Proton Exchange Membrane Water Electrolysis. <i>Membranes</i> , 2021, 11, 696. | 1.4 | 1 |
| 23 | 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 |
| 24 | 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 |
| 25 | (Invited) Hydrogen Generation and Compression. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1107-1107. | 0.0 | 0 |
| 26 | 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 |
| 27 | 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 |