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A review of polymer electrolyte membrane fuel cells:  
Technology, applications, and needs on fundamental research

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1543	An experimental study on the hydrogen crossover in polymer electrolyte membrane fuel cells for various current densities. <i>Applied Energy</i> , <b>2016</b> , 175, 212-217	10.7	28
1542	Proton exchange membrane from tetrazole-based poly (phthalazinone ether sulfone ketone) for high-temperature fuel cells. <b>2016</b> , 41, 12337-12346		35
1541	A pseudo-3D model to investigate heat and water transport in large area PEM fuel cells [Part 1: Model development and validation. <b>2016</b> , 41, 15545-15561		12
1540	Highly active platinum electrocatalyst towards oxygen reduction reaction in renewable energy generations of proton exchange membrane fuel cells. <i>Applied Energy</i> , <b>2016</b> , 173, 59-66	10.7	31
1539	Precipitation recovery of boron from aqueous solution by chemical oxo-precipitation at room temperature. <i>Applied Energy</i> , <b>2016</b> , 164, 1052-1058	10.7	18
1538	Extended Kalman Filter for prognostic of Proton Exchange Membrane Fuel Cell. <i>Applied Energy</i> , <b>2016</b> , 164, 220-227	10.7	143
1537	Modeling and simulation of parallel DC/DC converters for online AC impedance estimation of PEM fuel cell stack. <b>2016</b> , 41, 3004-3014		33
1536	Origin of Electrochemical, Structural, and Transport Properties in Nonaqueous Zinc Electrolytes. <b>2016</b> , 8, 3021-31		131
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1533	Comparison of iridium and ruthenium based, Pt surface enriched, nanosize catalysts for the oxygen reduction reaction. <b>2016</b> , 306, 219-225		19

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1531	Lattice Boltzmann methods for multiphase flow and phase-change heat transfer. <b>2016</b> , 52, 62-105		476
1530	Dynamic simulation of a fuel cell hybrid vehicle during the federal test procedure-75 driving cycle. <i>Applied Energy</i> , <b>2016</b> , 161, 181-196	10.7	29
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1527	Enhancement of water retention in UV-exposed fuel-cell proton exchange membranes studied using terahertz spectroscopy. <b>2016</b> ,		1
1526	Interplay between Electrical Relaxation and Structural Properties in Hybrid Membrane Based on PVDF/HFP and Functionalized Silica Network. <b>2016</b> , 120, 6963-6970		3
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1522	Addition of sulfonated silicon dioxide on an anode catalyst layer to improve the performance of a self-humidifying proton exchange membrane fuel cell. <b>2016</b> , 09, 1650025		3
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1520	Thermal analysis of Al <sub>2</sub> O <sub>3</sub> /water ethylene glycol mixture nanofluid for single PEM fuel cell cooling plate: An experimental study. <b>2016</b> , 41, 5096-5112		63
1519	Modeling and operation optimization of a proton exchange membrane fuel cell system for maximum efficiency. <b>2016</b> , 113, 52-65		51
1518	Treatment of Biogas for Feeding High Temperature Fuel Cells. <b>2016</b> ,		13
1517	Thermal analysis of cylindrical natural-gas steam reformer for 5 kW PEMFC. <b>2016</b> , 52, 2459-2469		6
1516	Analysis of the system efficiency of an intermediate temperature proton exchange membrane fuel cell at elevated temperature and relative humidity conditions. <i>Applied Energy</i> , <b>2016</b> , 166, 165-173	10.7	30
1515	Nernst Planck approach based on non-steady state flux for transport in a Donnan dialysis process. <b>2016</b> , 507, 119-125		8

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1513	Mechanism for Forming B,C,N,O Rings from NH <sub>3</sub> BH <sub>3</sub> and CO <sub>2</sub> via Reaction Discovery Computations. <b>2016</b> , 120, 1135-44	14
1512	Graphitic carbon nitride nanosheets/sulfonated poly(ether ether ketone) nanocomposite membrane for direct methanol fuel cell application. <b>2016</b> , 507, 1-11	75
1511	Powerpath controller for fuel cell & battery hybridisation. <b>2016</b> , 41, 4229-4238	9
1510	Synergistic effect of boron/nitrogen co-doping into graphene and intercalation of carbon black for Pt-BCN-Gr/CB hybrid catalyst on cell performance of polymer electrolyte membrane fuel cell. <b>2016</b> , 96, 314-324	30
1509	Graphene-based materials with tailored nanostructures for energy conversion and storage. <b>2016</b> , 102, 1-72	189
1508	A signal-based method for fast PEMFC diagnosis. <i>Applied Energy</i> , <b>2016</b> , 165, 748-758	10.7 50
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1498	In-Plane Effective Diffusivity in PEMFC Gas Diffusion Layers. <b>2016</b> , 115, 411-433	22
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1496	Effects of flow field design on water management and reactant distribution in PEMFC: a review. <b>2016</b> , 22, 301-316	63
1495	Alkaline anion exchange membranes based on KOH-treated multilayer graphene oxide. <b>2016</b> , 508, 51-61	53
1494	Anode partial flooding modelling of proton exchange membrane fuel cells: Optimisation of electrode properties and channel geometries. <b>2016</b> , 146, 88-103	40
1493	Effect of strengthened road vibration on performance degradation of PEM fuel cell stack. <b>2016</b> , 41, 5123-5134	34
1492	Ion-conductive and transparent PVdF-HFP/silane-functionalized ZrO <sub>2</sub> nanocomposite electrolyte for electrochromic applications. <b>2016</b> , 196, 236-244	23
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1489	PEM fuel cell electrocatalysts based on transition metal macrocyclic compounds. <b>2016</b> , 315, 153-177	87
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1485	A review of recent development: Transport and performance modeling of PEM fuel cells. <i>Applied Energy</i> , <b>2016</b> , 165, 81-106	10.7 244
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1483	Self-Assembled N/S Codoped Flexible Graphene Paper for High Performance Energy Storage and Oxygen Reduction Reaction. <b>2016</b> , 8, 2078-87	101
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1469	Carbon supported Pd-based bimetallic and trimetallic catalyst for formic acid electrochemical oxidation. <b>2016</b> , 180, 758-765		120
1468	Structural parameters of supported fuel cell catalysts: The effect of particle size, inter-particle distance and metal loading on catalytic activity and fuel cell performance. <b>2016</b> , 181, 298-313		127
1467	Optimal proton exchange membrane fuel cell modelling based on hybrid Teaching Learning Based Optimization Differential Evolution algorithm. <b>2016</b> , 7, 347-360		63
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1448	Recent advances and challenges of fuel cell based power system architectures and control $\bar{\Delta}$ review. <b>2017</b> , 73, 10-18	254
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1443	Electrospun nanofiber enhanced sulfonated poly(arylene ether nitriles)-based proton conducting membrane. <b>2017</b> ,	

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1434	High efficiency platinum nanoparticles based on carbon quantum dot and its application for oxygen reduction reaction. <b>2017</b> , 42, 11605-11613	17
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1422	An Overview of Chemical and Mechanical Stabilities of Polymer Electrolytes Membrane. <b>2017</b> , 327-340	1
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1419	Nanoscale Aggregation in Acid- and Ion-Containing Polymers. <b>2017</b> , 8, 499-523	34
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1417	Efficient direct formic acid fuel cell (DFAFC) anode of nano-sized palladium complex: High durability and activity origin. <b>2017</b> , 213, 118-126	24
1416	Magnetic CoPt nanoparticle-decorated ultrathin Co(OH) <sub>2</sub> nanosheets: an efficient bi-functional water splitting catalyst. <b>2017</b> , 7, 2486-2497	46
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1407	Research Advancements in Low-temperature Fuel Cells. <b>2017</b> , 35-74	1

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1397	Adjoint Method for the Optimization of the Catalyst Distribution in Proton Exchange Membrane Fuel Cells. <b>2017</b> , 164, E3232-E3242		2
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1392	Spray-Casting ABPBI Membranes for High Temperature PEM Fuel Cells. <b>2017</b> , 164, F866-F872		10
1391	Thermal Stability of Platinum-Cobalt Bimetallic Nanoparticles: Chemically Disordered Alloys, Ordered Intermetallics, and Core-Shell Structures. <b>2017</b> , 9, 12486-12493		17
1390	Oxygen Reduction Reaction in Ionic Liquids: Fundamentals and Applications in Energy and Sensors. <b>2017</b> , 5, 3698-3715		49
1389	TaNx coatings deposited by HPPMS on SS316L bipolar plates for polymer electrolyte membrane fuel cells: Correlation between corrosion current, contact resistance and barrier oxide film formation. <b>2017</b> , 42, 3259-3270		16

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1384	SGO/SPEN-based highly selective polymer electrolyte membranes for direct methanol fuel cells. <b>2017</b> , 23, 2143-2152		27
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1378	Brain-inspired computational paradigm dedicated to fault diagnosis of PEM fuel cell stack. <b>2017</b> , 42, 5410-5425		24
1377	Influence of morphology on physical properties of poly(2,5-benzimidazole) membranes. <b>2017</b> , 533, 342-350		11
1376	Effect of polyaniline (PANI) on Poly(vinylidene fluoride-co-hexafluoro propylene) (PVDF-co-HFP) polymer electrolyte membrane prepared by breath figure method. <b>2017</b> , 60, 124-131		37
1375	Enhanced electrooxidation of glucose at nano-chitosan-NiOOH modified GC electrode: fuel blends and hydrocarbon impurities. <b>2017</b> , 19, 2537-2548		5
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1371	Design of an integrated biomass gasification and proton exchange membrane fuel cell system under self-sustainable conditions: Process modification and heat-exchanger network synthesis. <b>2017</b> , 42, 448-458		2

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1183	Anion exchange composite membrane based on octa quaternary ammonium Polyhedral Oligomeric Silsesquioxane for alkaline fuel cells. <b>2018</b> , 375, 412-420	31
1182	A fuzzy logic based PROMETHEE method for material selection problems. <b>2018</b> , 7, 68-79	55
1181	Perylene-based sulfonated aliphatic polyimides for fuel cell applications: Performance enhancement by stacking of polymer chains. <b>2018</b> , 547, 43-50	28
1180	Diels-Alder polymerization: a versatile synthetic method toward functional polyphenylenes, ladder polymers and graphene nanoribbons. <b>2018</b> , 50, 3-20	35
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1178	Hyperbranched poly(amido amine) as an effective demulsifier for oil-in-water emulsions of microdroplets. <b>2018</b> , 211, 197-205	40
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1176	A review of nitrogen-doped graphene catalysts for proton exchange membrane fuel cells-synthesis, characterization, and improvement. <b>2018</b> , 15, 140-152	28
1175	Optimization of pulsed laser welding process parameters in order to attain minimum underfill and undercut defects in thin 316L stainless steel foils. <b>2018</b> , 99, 30-38	14
1174	Investigation of the effect of micro-porous layer on PEM fuel cell cold start operation. <b>2018</b> , 117, 125-134	48
1173	Hydrophilic domain structure in polymer exchange membranes: Simulations of NMR spin diffusion experiments to address ability for model discrimination. <b>2018</b> , 56, 62-78	10

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1171	Numerical simulation of two-phase cross flow in the gas diffusion layer microstructure of proton exchange membrane fuel cells. <b>2018</b> , 42, 802-816	39
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1169	Hydrogen evolution at Ir-Ni bimetallic deposits prepared by galvanic replacement. <b>2018</b> , 808, 21-27	19
1168	Platinum-Copper Rhombic Dodecahedral Nanoframes with Tunable Channels as Efficient Bifunctional Electrocatalysts for Fuel-Cell Reactions. <b>2018</b> , 10, 931-935	9
1167	Pt and PtRh nanowires supported on carbon and SnO <sub>2</sub> :Sb nanoparticles for ethanol electrochemical oxidation in acidic media. <b>2018</b> , 43, 178-188	25
1166	Highly-wrinkled reduced graphene oxide-conductive polymer fibers for flexible fiber-shaped and interdigital-designed supercapacitors. <b>2018</b> , 376, 117-124	56
1165	Print-Light-Synthesis of Platinum Nanostructured Indium-Tin-Oxide Electrodes for Energy Research. <b>2018</b> , 3, 1700201	11
1164	Mesoscale Interactions of Transport Phenomena in Polymer Electrolyte Fuel Cells. <b>2018</b> , 65-92	
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1161	Mathematical Modelling and Numerical Simulation. <b>2018</b> , 77-100	
1160	Modeling Transport Phenomena in Porous Media with Applications. <b>2018</b> ,	11
1159	Proton Exchange Membrane Fuel Cells. <b>2018</b> ,	7
1158	CFD Simulation of Flow Through the Reconstructed Microstructure of Fibrous Gas Diffusion Layer in a Polymer Electrolyte Membrane Fuel Cell. <b>2018</b> , 13,	2
1157	Hybrid PEM Fuel-Cell-Diesel-Solar Power System Design with Fuzzy Battery Management System and Weather Forecasting for Electric Boats. <b>2018</b> ,	1
1156	Reconstructing Speech Stimuli From Human Auditory Cortex Activity Using a WaveNet Approach. <b>2018</b> ,	1
1155	Development and Evaluation of a Portable Fuel Cell Hybrid System. <b>2018</b> ,	0

1154	Numerical analysis on the dynamic response of a plate-and-frame membrane humidifier for PEMFC vehicles under various operating conditions. <b>2018</b> , 16, 641-650	6
1153	Palladium nanoparticles loaded on nitrogen and boron dual-doped single-wall carbon nanohorns with high electrocatalytic activity in the oxygen reduction reaction.. <b>2018</b> , 8, 33688-33694	7
1152	Sulfonated aromatic polymers containing hexafluoroisopropylidene groups: a simple but effective structure for fuel cell membranes. <b>2018</b> , 6, 24625-24632	22
1151	Defect Engineering in Reduced Graphene Oxide toward Advanced Energy Conversion. <b>2018</b> ,	
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1149	Analysis of Proton Exchange Membrane Fuel Cell reactant gas dynamic response and distribution quality. <b>2018</b> , 152, 667-672	6
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1147	First-principles computational approach for innovative design of highly functional electrocatalysts in fuel cells. <b>2018</b> , 12, 225-232	1
1146	Fabrication and Characterization of Pt-Co/C Catalyst for Fuel Cell Electrode. <b>2018</b> , 1095, 012007	1
1145	Fe-Doped Metal-Organic Frameworks-Derived Electrocatalysts for Oxygen Reduction Reaction in Alkaline Media. <b>2018</b> , 165, F1278-F1285	10
1144	Hydroxide Transport in Anion-Exchange Membranes for Alkaline Fuel Cells. <b>2018</b> ,	3
1143	Emerging Membrane Technologies for Water and Energy Sustainability: Future Prospects, Constrains and Challenges. <b>2018</b> , 11, 2997	52
1142	Antifouling Properties of PES Membranes by Blending with ZnO Nanoparticles and NMP?Acetone Mixture as Solvent. <b>2018</b> , 8,	9
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1139	Synthesis and Characterization by Ellipsometry of Cationic Membranes for Fuel Cells. <b>2018</b> , 930, 625-630	2
1138	Structurally Well-Defined Anion-Exchange Membranes Containing Perfluoroalkyl and Ammonium-Functionalized Fluorenyl Groups. <b>2018</b> , 3, 16143-16149	11
1137	Enhanced Conductivity of Composite Membranes Based on Sulfonated Poly(Ether Ether Ketone) (SPEEK) with Zeolitic Imidazolate Frameworks (ZIFs). <b>2018</b> , 8,	22



1136	Chalcogenide Electrocatalysts for Energy Conversion Fuel Cell. <b>2018</b> , 419-445		3
1135	Phosphoric Acid Doped Polybenzimidazole (PBI)/Zeolitic Imidazolate Framework Composite Membranes with Significantly Enhanced Proton Conductivity under Low Humidity Conditions. <b>2018</b> , 8,		65
1134	Impedance spectroscopy assessment of catalyst coated Nafion assemblies for proton exchange membrane fuel cells. <b>2018</b> , 292, 292-298		8
1133	Nafion/sulfonated poly(indene) polyelectrolyte membranes for fuel cell application. <b>2018</b> , 28, 293-301		4
1132	Hydrophilic microporous layer coatings for polymer electrolyte membrane fuel cells operating without anode humidification. <b>2018</b> , 402, 468-482		30
1131	Investigation of the Thermo-elastic Response of Adhesively Bonded Two-Dimensional Functionally Graded Circular Plates Based on Theory of Elasticity. <b>2018</b> , 42, 415-433		7
1130	Review Ammonia Oxidation Electrocatalysis for Hydrogen Generation and Fuel Cells. <b>2018</b> , 165, J3130-J3147		87
1129	Electrical resistance and microstructure of typical gas diffusion layers for proton exchange membrane fuel cell under compression. <i>Applied Energy</i> , <b>2018</b> , 231, 127-137	10.7	46
1128	Facile synthesis of PtAg octahedral and tetrahedral nanocrystals with enhanced activity and durability toward methanol oxidation. <b>2018</b> , 33, 3891-3897		1
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1122	Application of Novel Carbonaceous Materials as Support for Fuel Cell Electrocatalysts. <b>2018</b> , 175-213		1
1121	Non-precious nanostructured materials by electrospinning and their applications for oxygen reduction in polymer electrolyte membrane fuel cells. <b>2018</b> , 408, 17-27		32
1120	Electrochemical Hydrogenation of Acetone to Produce Isopropanol Using a Polymer Electrolyte Membrane Reactor. <b>2018</b> , 11, 2691		6
1119	Effect of cluster interface structure on the spontaneous escape behavior of silver in ion plating coatings and its inhibition mechanism. <b>2018</b> , 664, 6-11		2

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1117	Improvement of electrochemical properties of modified unitized regenerative fuel cells through a fluorination technique. <b>2018</b> , 10, 044302		3
1116	Development and experimental investigation of an oil-free twin-screw air compressor for fuel cell systems. <b>2018</b> , 145, 755-762		19
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1114	Reverse relationships of water uptake and alkaline durability with hydrophilicity of imidazolium-based grafted anion-exchange membranes. <b>2018</b> , 14, 9118-9131		10
1113	A potential polymer formulation of a durable carbon-black catalyst with a significant fuel cell performance over a wide operating temperature range. <b>2018</b> , 10, 161-168		13
1112	Investigating the In-/Through-Plane Effective Diffusivities of Dry and Partially-Saturated Gas Diffusion Layers. <b>2018</b> , 165, F986-F993		13
1111	A COMPARISON OF USER-END STRATEGIES IN 3D VIDEO TRANSMISSION. <b>2018</b> ,		
1110	Synthesis, characterization and comparison of polythiophene-carbon nanocomposite materials as Pt electrocatalyst supports for fuel cell applications. <b>2018</b> , 41, 1		7
1109	The recovery mechanism of proton exchange membrane fuel cell in micro-current operation. <i>Applied Energy</i> , <b>2018</b> , 226, 1-9	10.7	20
1108	Thin pore-filling membrane with highly packed-acid structure for high temperature and low humidity operating polymer electrolyte fuel cells. <b>2018</b> , 394, 67-73		17
1107	Relationship between Proton Transport and Morphology of Perfluorosulfonic Acid Membranes: A Reactive Molecular Dynamics Approach. <b>2018</b> , 122, 5922-5932		30
1106	Enhanced Corrosion Resistance and Interfacial Conductivity of TiC /a-C Nanolayered Coatings via Synergy of Substrate Bias Voltage for Bipolar Plates Applications in PEMFCs. <b>2018</b> , 10, 19087-19096		31
1105	Static structure of sodium polystyrene sulfonate solutions obtained through a coarse-grained model. <b>2018</b> , 116, 2244-2253		1
1104	Experimental Observations of Microstructure Changes in the Catalyst Layers of Proton Exchange Membrane Fuel Cells under Wet-Dry Cycles. <b>2018</b> , 165, F3337-F3345		29
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1101	The Effect of Electrochemical and Gas Phase Activation of High Surface Area Carbon Black Ketjen Black EC 600 DJ on Its Surface Composition, Electrochemical Capacitance, and Stability. <b>2018</b> , 54, 426-432		4

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1099	Two-Phase Flow Dynamics in the Gas Diffusion Layer of Proton Exchange Membrane Fuel Cells: Volume of Fluid Modeling and Comparison with Experiment. <b>2018</b> , 165, F613-F620		39
1098	High-Resolution Imaging of Polymer Electrolyte Membrane Fuel Cell Cathode Layers by Soft X-ray Spectro-Ptychography. <b>2018</b> , 122, 11709-11719		25
1097	Fuel Cell: Fundamental, Classification, Application, and Environmental Impact. <b>2018</b> , 363-385		0
1096	Optimized power management based on adaptive-PMP algorithm for a stationary PEM fuel cell/battery hybrid system. <b>2018</b> , 43, 15433-15444		44
1095	Optimizing crystallinity and porosity of hierarchical Ni(OH) <sub>2</sub> through conformal transformation of metal-organic framework template for supercapacitor applications. <b>2018</b> , 20, 4313-4320		21
1094	Low Carbon Energy Supply. <b>2018</b> ,		3
1093	Synthesis of Nanomaterials for Fuel Cell Applications. <b>2018</b> , 205-226		3
1092	Bipolar plate development with additive manufacturing and protective coating for durable and high-efficiency hydrogen production. <b>2018</b> , 396, 590-598		42
1091	Applications of Organized Films at Solid-Liquid and Liquid-Gas Interfaces. <b>2018</b> , 21, 405-425		
1090	Social implications. <b>2018</b> , 413-461		1
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1088	Developing titanium micro/nano porous layers on planar thin/tunable LGDLs for high-efficiency hydrogen production. <b>2018</b> , 43, 14618-14628		30
1087	Fuel cells. <b>2018</b> , 107-220		7
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1084	Charge Transfer in Molecular Materials. <b>2018</b> , 1-31		3
1083	Preparation of MEA. <b>2018</b> , 117-138		2

1082	Degradation Mechanisms and Their Lifetime. <b>2018</b> , 139-154	5
1081	Analysis of representative elementary volume and through-plane regional characteristics of carbon-fiber papers: diffusivity, permeability and electrical/thermal conductivity. <b>2018</b> , 127, 687-703	58
1080	Copper-Induced Formation of Structurally Ordered Pt <sub>1-x</sub> Be <sub>x</sub> Cu Ternary Intermetallic Electrocatalysts with Tunable Phase Structure and Improved Stability. <b>2018</b> , 30, 5987-5995	68
1079	Chitosan-ABS membrane for DMFC: Effect of sulfonation time and mass ratio of chitosan and ABS. <b>2018</b> ,	
1078	Effects of Thermal and Auxiliary Dynamics on a Fuel Cell Based Range Extender. <b>2018</b> ,	1
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1076	Carbon-Rich Nanomaterials: Fascinating Hydrogen and Oxygen Electrocatalysts. <b>2018</b> , 30, e1800528	102
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1071	Poly(arylene alkylene)s with pendant N-spirocyclic quaternary ammonium cations for anion exchange membranes. <b>2018</b> , 6, 16537-16547	83
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1069	Application of the X-in-the-Loop Testing Method in the FCV Hybrid Degree Test. <b>2018</b> , 11, 433	10
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1058	Impact of PTFE distribution across the GDL on the water droplet removal from a PEM fuel cell electrode containing binder. <b>2018</b> , 43, 15481-15491	38
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1056	Nonlinear Impedance Spectra Analysis of CO Poisoning on PEM Fuel Cell Performance. <b>2018</b> , 85, 67-76	
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1053	Effect of Acetonitrile Contamination on Long-Term Degradation of Proton Exchange Membrane Fuel Cells. <b>2018</b> , 165, F3191-F3199	8
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1049	Thermal and Electrical Parameter Identification of a Proton Exchange Membrane Fuel Cell Using Genetic Algorithm. <b>2018</b> , 11, 2099	18
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1047	Homogenization of current density of PEM fuel cells by in-plane graded distributions of platinum loading and GDL porosity. <b>2018</b> , 192, 699-713	37

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1035	Fundamentals of Electrochemistry with Application to Direct Alcohol Fuel Cell Modeling. <b>2018</b> ,	1
1034	Preparation, characterization, and electrochemical properties investigation of recycled proton exchange membrane for fuel cell applications. <b>2018</b> , 161, 699-709	16
1033	Fuel Cell Catalyst Layers and Membrane-Electrode Assemblies Containing Multiblock Poly(arylene ether sulfones) Bearing Perfluorosulfonic Acid Side Chains. <b>2018</b> , 165, F891-F897	7
1032	Numerical study on thermal performance of non-uniform flow channel designs for cooling plates of PEM fuel cells. <b>2018</b> , 74, 917-930	15
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1023	Interactions between a polymer electrolyte membrane fuel cell and boost converter utilizing a multiscale model. <b>2018</b> , 395, 237-250		13
1022	Improved oxidation of hydrogen off-gas by hydrophobic surface modification: A multiscale density functional theory study. <b>2019</b> , 44, 28-35		2
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1020	Rapid humidity regulation by mixing of dry and humid gases with feedback control for PEM fuel cells. <b>2019</b> , 44, 389-407		11
1019	Polymer Fuel Cell Based on Polybenzimidazole Membrane: A Review. <b>2019</b> , 58, 465-497		11
1018	Review of fundamentals and applications of polyester nanocomposites filled with carbonaceous nanofillers. <b>2019</b> , 35, 22-44		24
1017	Effect of plating bath composition on chemical composition and oxygen reduction reaction activity of electrodeposited Pt <sub>10</sub> catalysts. <b>2019</b> , 38, 95-106		18
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1013	Fabricating ceramics with embedded microchannels using an integrated additive manufacturing and laser machining method. <b>2019</b> , 102, 1071-1082		13
1012	Comparative analysis of liquid versus vapor-feed passive direct methanol fuel cells. <b>2019</b> , 131, 563-584		41
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1003	Electronic properties and oxygen reduction reaction catalytic activity of h-BeN and MgN by first-principles calculations. <b>2019</b> , 30, 465202		4
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1001	In Situ and Operando Characterization of Proton Exchange Membrane Fuel Cells. <b>2019</b> , 31, e1901900		60
1000	Theoretical analysis of oxygen reduction reaction activity on single metal (Ni, Pd, Pt, Cu, Ag, Au) atom supported on defective two-dimensional boron nitride materials. <b>2019</b> , 21, 18589-18594		22
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