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1527	Doping Nafion [®] matrix by p-aramid flakes for a proton transport less reliant on moisture. 2011 , 21, 12414		9
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1524	Temperature dependence of the water distribution inside a Nafion membrane in an operating polymer electrolyte fuel cell. A micro-Raman study. 2011 , 58, 449-455		31
1523	Oxygen reduction at a water-1,2-dichlorobenzene interface catalyzed by cobalt tetraphenyl porphyrine: A fuel cell approach. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 10033-10043	6.7	34
1522	Self-humidifying nanocomposite membranes based on sulfonated poly(ether ether ketone) and heteropolyacid supported Pt catalyst for fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 10940-10957	6.7	33
1521	Synthesis and characterization of a new anion exchange membrane by a green and facile route. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 11955-11960	6.7	20
1520	Influence of silica morphology in composite Nafion membranes properties. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 14725-14733	6.7	24
1519	Effects of porous and dense electrode structures of membrane electrode assembly on durability of direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 15313-15322	6.7	17
1518	Synthesis and characterization of new sulfonated polytriazole proton exchange membrane by click reaction for direct methanol fuel cells (DMFCs). <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 15333-15343	6.7	55
1517	Development of an internal reforming alcohol fuel cell: Concept, challenges and opportunities. 2011 , 176-177, 95-101		33
1516	Optimization and synthesis of plasma polymerized proton exchange membranes for direct methanol fuel cells. 2011 , 372, 303-313		20
1515	Swelling and permeability of Nafion [®] 117 in water-methanol solutions: An experimental and modelling investigation. 2011 , 377, 54-64		23
1514	Polyelectrolyte complex membranes for pervaporation, nanofiltration and fuel cell applications. 2011 , 379, 19-45		178
1513	Effect of the Pt precursor on the morphology and catalytic performance of Pt-impregnated on Pd/C for the oxygen reduction reaction in polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 9115-9122	6.7	33

1512	Preparation and characterization of a modified montmorillonite/sulfonated polyphenylether sulfone/PTFE composite membrane. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 2177-2183	6.7	36
1511	Wormholelike mesoporous carbons as the support for Pt ₂ Sn ₁ towards ethanol electrooxidation: Effect of pore diameter. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 2250-2257	6.7	13
1510	Preparation and properties of proton exchange membranes based-on Nafion [®] and phosphonic acid-functionalized hollow silica spheres. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 3123-3130	6.7	27
1509	Investigation on sulfuric acid sulfonation of in-situ sol-gel derived Nafion/SiO ₂ composite membrane. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 3606-3613	6.7	75
1508	Implementation and optimization of the HySyLab DMFC single cell test station. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 8082-8087	6.7	7
1507	Functionalized titania nanotube composite membranes for high temperature proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 6073-6081	6.7	68
1506	Synthesis and characterization of proton exchange membranes based on sulfonated poly(flourenyl ether nitrile oxynaphthalate) for direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 8492-8498	6.7	25
1505	Polymer membranes for high temperature proton exchange membrane fuel cell: Recent advances and challenges. 2011 , 36, 813-843		669
1504	Polymeric materials as anion-exchange membranes for alkaline fuel cells. 2011 , 36, 1521-1557		528
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1501	Durability Analysis of Nafion/Hydrophilic Pretreated PTFE Membranes for PEMFCs. 2012 , 159, F864-F870		15
1500	Hybrid polymers based on sulfonated polynorbornene with enhanced proton conductivity for direct methanol fuel cells. 2012 , 24, 756-764		1
1499	Stack Operation Using Composite Membrane-Electrodes Assemblies at 120 [°] ± 1 [°] °C. 2012 , 9,		6
1498	Polymer fuel cells based on polybenzimidazole/H ₃ PO ₄ . 2012 , 5, 6436		136
1497	Preparation and characterization of PVDF-PFSA flat sheet ultrafiltration membranes. 2012 , 6, 301-310		7
1496	Composite membranes based on sulfonated poly(ether ether ketone) and SDBS-adsorbed graphene oxide for direct methanol fuel cells. 2012 , 22, 24862		165
1495	Correlation between the properties of hybrid ion-exchange membranes and the nature and dimensions of dopant particles. 2012 , 7, 437-451		52

1494	Current Advances in Polymer Electrolyte Fuel Cells Based on the Promotional Role of Under-rib Convection. 2012 , 12, 908-938		20
1493	Conductivity and methanol permeability of sulfonated polystyrene membrane with dispersed montmorillonite nanoclay. 2012 , 33, 2105-2113		4
1492	The oxygen reduction reaction on Pt/TiO _x N _y -based electrocatalyst for PEM fuel cell applications. 2012 , 42, 857-866		21
1491	Electrical Behavior of CeP2O7 Electrolyte for the Application in Low-Temperature Proton-Conducting Ceramic Electrolyte Fuel Cells. 2012 , 159, F819-F825		22
1490	Hydrogen production from ethanol over PdRh/CeO ₂ with a metallic membrane reactor. 2012 , 193, 145-150		40
1489	Proton exchange membranes based on aryl epoxy resin for fuel cells operated at elevated temperatures. 2012 ,		
1488	Membrane electrode assemblies for polymer electrolyte membrane fuel cells. 2012 , 279-311		2
1487	Polyimide nonwoven fabric-reinforced, flexible phosphosilicate glass composite membranes for high-temperature/low-humidity proton exchange membrane fuel cells. 2012 , 22, 18550		24
1486	A proton conductive silicate-nanoencapsulated polyimide nonwoven as a novel porous substrate for a reinforced sulfonated poly(arylene ether sulfone) composite membrane. 2012 , 22, 1634-1642		26
1485	Sulfonated poly(ether sulfone ether ketone ketone)/sulfonated poly(ether sulfone) blend membranes with reduced methanol permeability. 2012 , 24, 153-160		5
1484	Effect of Zirconium Phosphate on Structural, Thermal, and Electrical Properties of Polyether Sulfone (PES) Membrane. 2012 , 61, 655-668		9
1483	Highly conductive proton exchange membranes based on sulfonated poly(phthalazinone ether sulfone) and cerium sulfophenyl phosphate. 2012 , 72, 549-555		19
1482	Layer-by-layer self-assembly in the development of electrochemical energy conversion and storage devices from fuel cells to supercapacitors. 2012 , 41, 7291-321		201
1481	Composite proton conducting membranes based on Nafion and sulfonated SiO ₂ nanoparticles. 2012 , 415-416, 696-701		42
1480	Block sulfonated poly(arylene ether ketone) containing flexible side-chain groups for direct methanol fuel cells usage. 2012 , 417-418, 61-68		7
1479	CO tolerance of nano-architected PtMo anode electrocatalysts for PEM fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 11268-11275	6.7	39
1478	Silicon modified ultrafiltration-based proton-conductive membranes with improved performance for H ₂ /Cl ₂ fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 11425-11430	6.7	7
1477	Synthesis and optimization of proton exchange membranes by a pulsed plasma enhanced chemical vapor deposition technique. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 11276-11289	6.7	14

1476	Improved dehydrogenation properties of lithium alanate (LiAlH ₄) doped by low energy grinding. 2012 , 525, 73-77		12
1475	Microporous separators for Fe/V redox flow batteries. 2012 , 218, 39-45		52
1474	Gasfluss-Sputtern von Katalysatorschichten f ⁺ Polymer-Elektrolytmembran-Brennstoffzellen. 2012 , 84, 2204-2209		
1473	Neutrons for fuel cell membranes: Structure, sorption and transport properties. 2012 , 213, 195-211		13
1472	Polymer Electrolyte Membrane Fuel Cells. 2012 , 601-670		7
1471	Technical Advancement of Fuel-Cell Research and Development. 2012 , 1-42		2
1470	Catalysts for hydrogen production in a multifuel processor by methanol, dimethyl ether and bioethanol steam reforming for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 16388-16396	6.7	35
1469	Improvement of PEMFC performance with Nafion/inorganic nanocomposite membrane electrode assembly prepared by ultrasonic coating technique. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 16748-16758	6.7	66
1468	Highly performed non-humidification membrane electrode assembly prepared with binary RuO ₂ /BiO ₂ oxide supported Pt catalysts as anode. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 13103-13109	6.7	16
1467	Self-humidifying membrane electrode assembly prepared by adding PVA as hygroscopic agent in anode catalyst layer. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 12860-12867	6.7	22
1466	Comparative study on the dehydrogenation properties of TiCl ₄ -doped LiAlH ₄ using different doping techniques. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 13387-13392	6.7	13
1465	Sulfonated PEEK-based polymers in PEMFC and DMFC applications: A review. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 15241-15255	6.7	173
1464	Micro-Raman study on water distribution inside a Nafion membrane during operation of polymer electrolyte fuel cell. 2012 , 82, 277-283		23
1463	Layered tetratitanate intercalating sulfanilic acid for organic/inorganic proton conductors. 2012 , 227, 73-79		6
1462	Highly hydrated Nafion/activated carbon hybrids. 2012 , 53, 4927-4930		10
1461	Synthesis and characterization of PWA based inorganic ion-exchange membrane. 2012 , 98, 193-198		6
1460	Proton exchange membrane developed from novel blends of polybenzimidazole and poly(vinyl-1,2,4-triazole). 2012 , 4, 5256-65		78
1459	Perfluorinated Sulfonic Acids as Proton Conductor Membranes. 2012 , 295-329		3

1458	Synthesis and Characterization of 5-(4-(3-Trimethoxysilyl)Propoxy)Phenyl)-1H-Tetrazole. 2012 ,		
1457	Analytics of Physical Properties of Low-Temperature Fuel Cells. 2012 , 521-541		
1456	Rare Earth metal-mediated group transfer polymerization of vinylphosphonates. 2012 , 33, 1327-45		32
1455	Operating Temperature Dependency on Performance Degradation of Direct Methanol Fuel Cells. 2012 , 12, 426-438		20
1454	Polymer-copper-modified MWNTs by radiation-induced graft polymerization and their efficient adsorption of odorous gases. 2012 , 126, E64-E69		4
1453	Preparation of poly(vinylidene fluoride) nanocomposite membranes based on graft polymerization and sol-gel process for polymer electrolyte membrane fuel cells. 2012 , 16, 1405-1414		7
1452	Effects of mixed conductivity of nanocomposite membranes MF-4SC/PANI. 2012 , 16, 1983-1991		3
1451	Effects of casting solvent on microstructure and ionic conductivity of anhydrous sulfonated poly(ether ether ketone)-inorganic liquid composite membranes. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 748-754	6.7	28
1450	Analysis of the characterization of water produced from proton exchange membrane fuel cell (PEMFC) under different operating thermal conditions. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3890-3896	6.7	13
1449	Evaluation of smectite clays as nanofillers for the synthesis of nanocomposite polymer electrolytes for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6236-6245	6.7	40
1448	SiO ₂ ceramic nanoporous substrate-reinforced sulfonated poly(arylene ether sulfone) composite membranes for proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6189-6198	6.7	29
1447	The effect of relative humidity on the gas permeability and swelling in PFSI membranes. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6308-6316	6.7	68
1446	Multilayer-structured, SiO ₂ /sulfonated poly(phenylsulfone) composite membranes for proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6182-6188	6.7	18
1445	Inorganic-organic membranes based on Nafion, [(ZrO ₂) ₂ (HfO ₂) _{0.25}] and [(SiO ₂) ₂ (HfO ₂) _{0.28}]. Part I: Synthesis, thermal stability and performance in a single PEMFC. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6199-6214	6.7	48
1444	New results on the visco-elastic behaviour of ionomer membranes and relations between TBH plots and proton conductivity decay of Nafion [®] 117 in the range 50-140 °C. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6302-6307	6.7	19
1443	Inorganic-organic membranes based on Nafion, [(ZrO ₂) ₂ (HfO ₂) _{0.25}] and [(SiO ₂) ₂ (HfO ₂) _{0.28}] nanoparticles. Part II: Relaxations and conductivity mechanism. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6215-6227	6.7	45
1442	Design and implementation of interleaved boost converter for fuel cell systems. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3897-3903	6.7	22
1441	Solid acids as electrolyte materials for proton exchange membrane (PEM) electrolysis: Review. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3358-3372	6.7	123

1440	Roles of Pb and MnOx in PtPb/MnOx-CNTs catalyst for methanol electro-oxidation. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 1263-1271	6.7	33
1439	Sulfonated bisphenol-A-polysulfone based composite PEMs containing tungstophosphoric acid and modified by electron beam irradiation. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6228-6235	6.7	14
1438	Crosslinked sulfonated poly(arylene ether sulfone) membranes for fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 2603-2613	6.7	48
1437	Nanostructured electrolyte membranes based on zeotypes, protic ionic liquids and porous PBI membranes: Preparation, characterization and MEA testing. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 7221-7234	6.7	38
1436	Imidazolium-functionalized polysulfone hydroxide exchange membranes for potential applications in alkaline membrane direct alcohol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 5216-5224	6.7	93
1435	Sulfonated poly(ether ether ketone)/ethylene glycol/polyhedral oligosilsesquioxane hybrid membranes for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 5979-5991	6.7	20
1434	Water recovery and air humidification by condensing the moisture in the outlet gas of a proton exchange membrane fuel cell stack. 2012 , 42, 173-178		45
1433	Water and charge transport models in proton exchange membranes: An overview. 2012 , 287, 238-246		23
1432	High performance sulfonated aromatic ionomers by solvothermal macromolecular synthesis. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 8672-8680	6.7	36
1431	The Ni/ZrO ₂ catalyst and the methanation of CO and CO ₂ . <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 8923-8928	6.7	146
1430	Sulfonated SBA-15 mesoporous silica-incorporated sulfonated poly(phenylsulfone) composite membranes for low-humidity proton exchange membrane fuel cells: Anomalous behavior of humidity-dependent proton conductivity. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 9202-9211	6.7	35
1429	Self-crosslinked alkaline electrolyte membranes based on quaternary ammonium poly(ether sulfone) for high-performance alkaline fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 9873-9881	6.7	29
1428	Impact of gas stoichiometry on water management and fuel cell performance of a sulfonated Poly(Ether Ether Ketone) membrane. 2012 , 206, 161-170		8
1427	Materials selection for bipolar plates for polymer electrolyte membrane fuel cells using the Ashby approach. 2012 , 206, 3-13		59
1426	Synthesis and characterization of sulfonated polytriazole-clay proton exchange membrane by in situ polymerization and click reaction for direct methanol fuel cells. 2012 , 208, 144-152		39
1425	Preparation, characterization and cell performance of durable nafion/SiO ₂ hybrid membrane for high-temperature polymeric fuel cells. 2012 , 210, 350-357		44
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1422	Nafion/titanium silicon oxide nanocomposite membranes for PEM fuel cells. 2013 , 37, 435-442		37
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1420	Sulfonated poly(ether ether ketone) membranes with sulfonated graphene oxide fillers for direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 5875-5884	6.7	157
1419	4,4'-Oxydianiline (ODA) containing sulfonated polyimide/protic ionic liquid composite membranes for anhydrous proton conduction. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11321-11330	6.7	30
1418	The development of mixture, alloy, and core-shell nanocatalysts with nanomaterial supports for energy conversion in low-temperature fuel cells. 2013 , 2, 636-676		227
1417	Outstanding electro-catalytic activity of Pt _x (Ru _y TeO ₂) _{1-x-y} /C composites towards ethanol oxidation in acid media. 2013 , 43, 953-965		4
1416	Optimization of gas diffusion electrode for polybenzimidazole-based high temperature proton exchange membrane fuel cell: Evaluation of polymer binders in catalyst layer. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11370-11378	6.7	61
1415	Novel branched sulfonated poly(ether ether ketone)s membranes for direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12051-12059	6.7	35
1414	Conductometric and computational study of cationic polymer membranes in H ⁺ and Na ⁺ -forms at various hydration levels. 2013 , 444, 127-138		22
1413	A novel environment-friendly route to prepare proton exchange membranes for direct methanol fuel cells. 2013 , 54, 1243-1250		13
1412	Proton conducting electrolyte membranes derived from novel branched sulfonated poly(ether ether ketone)s with benzimidazole sulfonic acid pendants via thiol-ene click chemistry. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 16276-16285	6.7	9
1411	Graphene Oxide-Impregnated PVA/STA Composite Polymer Electrolyte Membrane Separator for Power Generation in a Single-Chambered Microbial Fuel Cell. 2013 , 52, 11597-11606		83
1410	New azaheterocyclic aromatic diphosphonates for hybrid materials for fuel cell applications. 2013 , 37, 3084		8
1409	Polybenzimidazole/zwitterion-coated polyamidoamine dendrimer composite membranes for direct methanol fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 16410-16417	6.7	31
1408	Stack performance of phosphotungstic acid functionalized mesoporous silica (HPW-meso-silica) nanocomposite high temperature proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12830-12837	6.7	11
1407	A review: Feasibility of hydrogen generation from the reaction between aluminum and water for fuel cell applications. 2013 , 229, 133-140		108
1406	Novel polyolefin/silicon dioxide/H ₃ PO ₄ composite membranes with spatially heterogeneous structure for phosphoric acid fuel cell. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 4132-4143	6.7	17
1405	Properties of Sulfonated Poly(Arylene Ether Sulfone)/Functionalized Carbon Nanotube Composite Membrane for High Temperature PEMFCs. 2013 , 13, n/a-n/a		2

1404	Catalytic reforming of hydrocarbon feedstocks into fuel for power generation units. 2013 , 5, 312-317	9
1403	Biohydrogen. 2013 , 345-381	5
1402	Poly(phthalazinone ether ketone ketone) anion exchange membranes with pyridinium as ion exchange groups for vanadium redox flow battery applications. 2013 , 1, 12246	67
1401	Ionic liquid doped polybenzimidazole membranes for high temperature Proton Exchange Membrane fuel cell applications. 2013 , 222, 202-209	112
1400	Synthesis of sulfonated (ether ether ketone) based membranes containing poly(4-styrenesulfonic acid) and its excellent performance for direct methanol fuel cells. 2013 , 224, 132-138	12
1399	Transport properties of sulfonated poly (styrene-isobutylene-styrene) membranes with counter-ion substitution. 2013 , 129, 2294-2304	21
1398	Silane-cross-linked polybenzimidazole with improved conductivity for high temperature proton exchange membrane fuel cells. 2013 , 1, 621-629	77
1397	Characteristics of high-water-uptake activated carbon/Nafion hybrid membranes for proton exchange membrane fuel cells. 2013 , 226, 87-93	36
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1394	Oxygen reduction reaction over nitrogen-doped graphene oxide cathodes in acid and alkaline fuel cells at intermediate temperatures. 2013 , 112, 82-89	35
1393	Membrane modification by liquid phase deposition using small amount of TiO ₂ for high-temperature operation of polymer electrolyte fuel cells. 2013 , 233, 148-156	21
1392	Proton conducting membranes based on sulfonated PEEK-WC polymer for PEMFCs. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 16642-16648	6.7 8
1391	Study on sulphonated polysulphone/polyurethane blend membranes for fuel cell applications. 2013 , 579, 100-104	10
1390	Protonenleitung in Metall-organischen Ger^äten und verwandten modularen por^en Festk^örpern. 2013 , 125, 2752-2764	102
1389	High temperature (HT) polymer electrolyte membrane fuel cells (PEMFC) DA review. 2013 , 231, 264-278	600
1388	Proton conduction in metal-organic frameworks and related modularly built porous solids. 2013 , 52, 2688-700	608
1387	Composite membranes with poly(ether ether ketone) as support and polyaniline like structure, with potential applications in fuel cells. 2013 , 11, 438-445	5

1386	Alkyl chain modified sulfonated poly(ether sulfone) for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 2889-2899	6.7	6
1385	Influence of hydrogen bonding effects on methanol and water diffusivities in acid-base polymer blend membranes of sulfonated poly(ether ether ketone) and base tethered polysulfone. 2013 , 117, 5315-29		15
1384	Imaging individual proton-conducting spots on sulfonated multiblock-copolymer membrane under controlled hydrogen atmosphere by current-sensing atomic force microscopy. 2013 , 117, 3892-9		12
1383	Naphthalene dianhydride based semifluorinated sulfonated copoly(ether imide)s: Synthesis, characterization and proton exchange properties. 2013 , 441, 168-177		55
1382	Enhanced performance of polybenzimidazole-based high temperature proton exchange membrane fuel cell with gas diffusion electrodes prepared by automatic catalyst spraying under irradiation technique. 2013 , 242, 510-519		30
1381	Enhancing the phase segregation and connectivity of hydrophilic channels by blending highly sulfonated graft copolymers with fluorinated homopolymers. 2013 , 1, 8118		15
1380	Facile synthesis of triangular shaped palladium nanoparticles decorated nitrogen doped graphene and their catalytic study for renewable energy applications. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 2240-2250	6.7	95
1379	Highly flexible, proton-conductive silicate glass electrolytes for medium-temperature/low-humidity proton exchange membrane fuel cells. 2013 , 5, 5034-43		34
1378	Properties and morphology of Nafion/polytetrafluoroethylene composite membrane fabricated by a solution-spray process. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8400-8408	6.7	11
1377	Carbon nanostructure grown using bi-metal oxide as electrocatalyst support for proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 6460-6468	6.7	10
1376	A critical investigation of the effect of hygrothermal cycling on hydration and in-plane/through-plane proton conductivity of Nafion 117 at medium temperature (70±30 °C). 2013 , 235, 129-134		19
1375	A convenient, efficient and green route for preparing anion exchange membranes for potential application in alkaline fuel cells. 2013 , 425-426, 190-199		25
1374	Synthesis and Characterization of Novel Sulfonated Aromatic Polyamides for Proton Exchange Membranes. 2013 , 821-822, 971-976		
1373	Synthesis and Characterization of Sulfonated Polybenzimidazole (SPBI) Copolymer for Polymer Exchange Membrane Fuel Cell. 2013 , 860-863, 803-806		2
1372	Alternative Energies. 2013 ,		2
1371	Effective transport properties for polymer electrolyte membrane fuel cells [With a focus on the gas diffusion layer. 2013 , 39, 111-146		131
1370	Fabrication of multi-walled carbon nanotubes hydrogen sensor on plastic. 2013 ,		1
1369	Viscoelastic phase diagram of fluorinated and grafted polymer films and proton-exchange membranes for fuel cell applications. 2013 , 51, 1139-1148		2

1368	In-Situ Dynamic Characterization of Energy Storage and Conversion Systems. 2013,		2
1367	Stabilized Sulfonated Aromatic Polymers by in situ Solvothermal Cross-Linking. 2014, 2,		5
1366	. 2014,		17
1365	Enhancement of proton conductivity of sulfonated polystyrene membrane prepared by plasma polymerization process. 2014, 37, 1613-1624		3
1364	Phosphosilicate gel-polybenzimidazole nanocomposite novel membrane for fuel cell application. 2014, 18, 403-408		6
1363	Preparation and characterization of crosslinked sulfonated poly(ether ether ketone) membranes using 4-vinylbenzyl chloride via electron beam irradiation and subsequent Friedel-Craft reaction. 2014, 22, 1090-1095		5
1362	Effect of membrane electrode assembly fabrication method on the single cell performances of polybenzimidazole-based high temperature polymer electrolyte membrane fuel cells. 2014, 22, 1214-1220		11
1361	Sulfonated aromatic copoly(etheramide) membranes: preparation and characterization for possible application in polymer electrolyte membrane fuel cells. 2014, 26, 997-1006		5
1360	Prospects of poly (vinyl alcohol)/Chitosan/poly (styrene sulfonic acid) and montmorillonite Cloisite' 30B clay composite membrane for direct methanol fuel cells. 2014, 6, 053135		4
1359	Hybrid membranes containing inorganic nanoparticles. 2014, 24, 319-326		49
1358	Radiation-grafted membranes for polymer electrolyte fuel cells: current trends and future directions. 2014, 114, 12278-329		129
1357	Aromatic Hyperbranched Polymers: Synthesis and Application. 2014, 27-124		7
1356	Fluid dynamics and kinetic simulation for steam reforming of ethanol using a microchannel reactor. 2014,		0
1355	10. Solid polymer proton conducting electrolytes for fuel cells. 2014, 207-240		1
1354	Modification of a Nafion membrane by n-dodecyltrimethylammonium cation inclusion for potential application in DMFC. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 4023-4029	6.7	18
1353	Mesoporous carbon as Pt support for PEM fuel cell. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 8821-8826	6.7	41
1352	H3PO4 imbibed polyacrylamide-graft-chitosan frameworks for high-temperature proton exchange membranes. 2014, 249, 277-284		18
1351	Recent progress in fluoropolymers for membranes. 2014, 39, 164-198		313

1350	Enhanced performance of direct methanol fuel cells: a study on the combined effect of various supporting electrolytes, flow channel designs and operating temperatures. 2014 , 38, 41-50	47
1349	Preparation and characterization of polybenzimidazole/diethylamine hydrogen sulphate for medium temperature proton exchange membrane fuel cells. 2014 , 245, 915-926	44
1348	Partial sulfonation of PVdF-co-HFP: A preliminary study and characterization for application in direct methanol fuel cell. 2014 , 113, 169-177	99
1347	Parameter optimization of PEMFC model with improved multi-strategy adaptive differential evolution. 2014 , 27, 28-40	47
1346	A convenient crosslinking method for sulfonated poly(ether ether ketone) membranes via Friedel-Crafts reaction using 1,6-dibromohexane and aluminum trichloride. 2014 , 131, n/a-n/a	6
1345	Membrane prepared by incorporation of crosslinked sulfonated polystyrene in the blend of PVdF-co-HFP/Nafion: A preliminary evaluation for application in DMFC. 2014 , 123, 66-74	64
1344	Polymer electrolyte membrane with high selectivity ratio for direct methanol fuel cells: A preliminary study based on blends of partially sulfonated polymers polyaniline and PVdF-co-HFP. 2014 , 118, 183-191	79
1343	PVDF supported silica immobilized phosphotungstic acid membrane for DMFC application. 2014 , 262, 811-814	19
1342	Viscoelastic deformation of sulfonated polymeric cation-exchange membranes exposed to a pressure gradient. 2014 , 146, 65-72	2
1341	The effect of functionalised multi-walled carbon nanotubes in the hydrogen electrooxidation reaction in reactive currents impurified with CO. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 5063-5073 ^{6,7} ¹²	6,7
1340	Harnessing power from sea water using nano material as photocatalyst and solar energy as light source: the role of hydrocarbon as dual agent. 2014 , 38, 249-253	7
1339	Co-laminar flow cells for electrochemical energy conversion. 2014 , 260, 186-196	86
1338	Two-in-one: inherent anhydrous and water-assisted high proton conduction in a 3D metal-organic framework. 2014 , 53, 2638-42	313
1337	Effect of crosslinking on the durability and electrochemical performance of sulfonated aromatic polymer membranes at elevated temperatures. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 4459-4467 ^{6,7} ²⁰	6,7
1336	Preparation and performance of different amino acids functionalized titania-embedded sulfonated poly (ether ether ketone) hybrid membranes for direct methanol fuel cells. 2014 , 463, 134-144	38
1335	Enhancement of proton conductivity of polymer electrolyte membrane enabled by sulfonated nanotubes. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 974-986	6,7
1334	Synthesis of silica immobilized phosphotungstic acid (Si-PWA)-poly(vinyl alcohol) (PVA) composite ion-exchange membrane for direct methanol fuel cell. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9473-9481	6,7
1333	Synthesis and characterization of polysulfone/layered double hydroxides nanocomposite membranes for fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 4016-4022	6,7

1332	Intermolecular ionic cross-linked proton conducting electrolyte membranes derived from branched sulfonated poly(ether ether ketone)s with benzoxazole pendants. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7060-7068	6.7	11
1331	Performance comparison between high temperature and traditional proton exchange membrane fuel cell stacks using electrochemical impedance spectroscopy. 2014 , 256, 250-257		20
1330	Functionalized mesoporous structured inorganic materials as high temperature proton exchange membranes for fuel cells. 2014 , 2, 7637-7655		76
1329	Plasma techniques for the fabrication of polymer electrolyte membranes for fuel cells. 2014 , 456, 85-106		44
1328	Study on Air-cooled Self-humidifying PEMFC Control Method Based on Segmented Predict Negative Feedback Control. 2014 , 132, 389-396		20
1327	Energy storage systems for renewable energy power sector integration and mitigation of intermittency. 2014 , 35, 499-514		291
1326	New Transparent Laser-Drilled Fluorine-doped Tin Oxide covered Quartz Electrodes for Photo-Electrochemical Water Splitting. 2014 , 131, 184-194		34
1325	Methanol steam reforming for hydrogen generation via conventional and membrane reactors: A review. 2014 , 29, 355-368		289
1324	Renewable hydrogen economy in Asia Opportunities and challenges: An overview. 2014 , 30, 743-757		153
1323	Polysulfonation of PBI-based membranes for HT-PEMFCs: a possible way to maintain high proton transport at a low H3PO4 doping level. 2014 , 2, 663-671		45
1322	A highly conductive proton exchange membrane for high temperature fuel cells based on poly(5-vinyl tetrazole) and sulfonated polystyrene. 2014 , 255, 128-134		19
1321	Structural Insights into Proton Conduction in Gallic Acid-Boniazid Cocrystals. 2014 , 14, 423-426		35
1320	Nanocomposite proton exchange membranes based on Nafion containing Fe2TiO5 nanoparticles in water and alcohol environments for PEMFC. 2014 , 454, 74-81		72
1319	Utilization of Conducting Polymers in Fabricating Polymer Electrolyte Membranes for Application in Direct Methanol Fuel Cells. 2014 , 54, 1-32		64
1318	Two-in-One: Inherent Anhydrous and Water-Assisted High Proton Conduction in a 3D Metal-Organic Framework. 2014 , 126, 2676-2680		56
1317	Preparation of graphene oxide nano-composite ion-exchange membranes for desalination application. 2014 , 4, 24662-24670		75
1316	Evaluation of proton conductivity of sulfonated polyimide/dihydroxy naphthalene charge-transfer complex hybrid membranes. 2014 , 52, 2991-2997		12
1315	Challenges and opportunities of affordable Fuel Cell for distributed generation. 2014 ,		0

1314	Crosslinked tri-side-chain-type sulfonated poly(arylene ether ketones) with enhanced proton conductivity by a Friedel-Crafts acylation reaction. 2014 , 4, 51916-51925		6
1313	CO ₂ -promoted hydrolysis of KBH ₄ for efficient hydrogen co-generation. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 19603-19608	6.7	10
1312	Platinum-decorated chemically modified reduced graphene oxide/multiwalled carbon nanotube sandwich composite as cathode catalyst for a proton exchange membrane fuel cell. 2014 , 4, 26140		28
1311	Highly conductive anion exchange membrane for high power density fuel-cell performance. 2014 , 6, 13330-3		73
1310	Performance of the Electrochemical Bunsen Reaction Using Two Different Proton Exchange Membranes in the Sulfur/Iodine Cycle. 2014 , 53, 4966-4974		11
1309	New approach of blending polymeric ionic liquid with polybenzimidazole (PBI) for enhancing physical and electrochemical properties. 2014 , 2, 14449		40
1308	Review of Advanced Materials for Proton Exchange Membrane Fuel Cells. 2014 , 28, 7303-7330		437
1307	Synthesis and characterization of Nafion/SiO ₂ /MO _x (M= Ti, Zr, W) nanocomposite membranes by sol-gel reaction for fuel cells. 2014 , 60, 012033		2
1306	Transport properties of SPEEK nanocomposite proton conducting membranes: Optimization of additives content by response surface methodology. 2014 , 45, 2265-2279		20
1305	A portable hybrid hydrogen fuel cell-battery power unit for wireless sensor network. 2014 ,		1
1304	Kinetic modeling of anhydrous proton conduction in side chain liquid crystal polyacrylates. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 17391-17397	6.7	4
1303	High proton conductivity and low fuel crossover polymer electrolyte membranes derived from branched sulfonated poly(ether ether ketone)s and silica sulfonic acid nanoparticles. 2014 , 26, 770-778		6
1302	Proton dynamics in sulfonated ionic salt composites: Alternative membrane materials for proton exchange membrane fuel cells. 2014 , 268, 853-860		11
1301	Improving the Performances of Poly(vinylphosphonic acid) by Compositing or Copolymerization with Poly(4-(methyl)vinyl-1H-1,2,3-triazole). 2014 , 138, 256-263		10
1300	Enhancement of proton conductivity of chitosan membrane enabled by sulfonated graphene oxide under both hydrated and anhydrous conditions. 2014 , 269, 898-911		129
1299	Progress in the use of ionic liquids as electrolyte membranes in fuel cells. 2014 , 469, 379-396		202
1298	A facile synthesis of proton-conducting organic/inorganic membranes. 2014 , 470, 189-196		8
1297	Cross-linked sulfonated poly(ether imide)/silica organic/inorganic hybrid materials: proton exchange membrane properties. 2014 , 4, 22398-22410		32

1296	Humidity based proton conductivity of calcium-l-tartrate tetrahydrate: An environmentally benign coordination polymer as a solid electrolyte. 2014 , 196, 76-82		8
1295	Nonfluorinated Polymers for Proton Exchange Membranes. 2014 , 102-240		1
1294	A review of unitized regenerative fuel cell stack: Material, design and research achievements. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 17765-17778	6.7	63
1293	Effects of microstructural functional polyaniline layers on SPEEK/HPW proton exchange membranes. 2014 , 131,		36
1292	Promising aquivion composite membranes based on fluoroalkyl zirconium phosphate for fuel cell applications. 2014 , 7, 2176-84		17
1291	Effect of filler surface functionalization on the performance of Nafion/Titanium oxide composite membranes. 2014 , 147, 418-425		35
1290	An investigation of proton conductivity of PVDF based 5-aminotetrazole functional polymer electrolyte membranes (PEMs) prepared via direct surface-initiated AGET ATRP of glycidyl methacrylate (GMA). 2014 , 21, 1		14
1289	High-Performance and Durable Membrane Electrode Assemblies for High-Temperature Polymer Electrolyte Membrane Fuel Cells. 2014 , 5, 361-371		10
1288	Composite proton-conducting membranes based on poly(ethylene glycol vinyl glycidyl ether). 2014 , 56, 229-237		1
1287	Synergetic proton conducting effect in acid/base composite of phosphonic acid functionalized polystyrene and triazolyl functionalized polystyrene. 2014 , 4, 33702-33712		12
1286	Triphenyl amine containing sulfonated aromatic polyimide proton exchange membranes. 2014 , 60, 235-246		26
1285	Microbial fuel cells: transformation of wastes into clean energy. 2014 , 266-300		1
1284	Molecular dynamics simulation of electrokinetic flow of an aqueous electrolyte solution in nanochannels. 2014 , 140, 214701		41
1283	A performance study of methanol steam reforming in an A-type microchannel reactor. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 17690-17701	6.7	18
1282	Dynamic wet-E TEM observation of Pt/C electrode catalysts in a moisturized cathode atmosphere. 2014 , 25, 425702		13
1281	Biohydrogen for a New Generation of H ₂ /O ₂ Biofuel Cells: A Sustainable Energy Perspective. 2014 , 1, 1724-1750		54
1280	Voltage charging enhances ionic conductivity in gold nanotube membranes. 2014 , 8, 8266-72		30
1279	High proton conductivity and spectroscopic investigations of metal-organic framework materials impregnated by strong acids. 2014 , 6, 5161-7		73

1278	Mechanism of Low-Temperature Protonic Conductivity in Bulk, High-Density, Nanometric Titanium Oxide. 2014 , 24, 5137-5146		20
1277	Progress of international program on hydrogen production with the copper-chlorine cycle. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 2431-2445	6.7	21
1276	A pulse electrochemical deposition method to prepare membrane electrode assemblies with ultra-low anode Pt loadings through in situ construction of active core-shell nanoparticles on an electrode. 2014 , 260, 27-33		21
1275	A preliminary investigation on reinforced double layer Nafion membranes for high temperature PEFCs application. 2014 , 591, 149-155		8
1274	Enhanced activity of Pt nanoparticle catalysts supported on manganese oxide-carbon nanotubes for ethanol oxidation. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 798-807	6.7	36
1273	Conductivity of Nafion [®] 117 membrane used in polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 8656-8660	6.7	23
1272	Water-mediated proton conduction in a robust triazolyl phosphonate metal-organic framework with hydrophilic nanochannels. 2014 , 20, 8862-6		28
1271	Effects of Incorporation of SiO ₂ Nanoparticles into Sulfonated Polyimide Electrolyte Membranes on Fuel Cell Performance under Low Humidity Conditions. 2014 , 137, 213-218		24
1270	Synthesis and characterisation of a new sulphonated hydrocarbon polymer for application as a solid proton-conducting electrolyte. 2014 , 263, 62-70		6
1269	Sustainability index approach as a selection criteria for energy storage system of an intermittent renewable energy source. 2014 , 136, 909-920		56
1268	MWCNT-supported phthalocyanine cobalt as air-breathing cathodic catalyst in glucose/O ₂ fuel cells. 2014 , 255, 24-28		31
1267	Contact resistance between bipolar plate and gas diffusion layer in high temperature polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 987-995	6.7	28
1266	Intermediate temperature proton-conducting membrane electrolytes for fuel cells. 2014 , 3, 24-41		56
1265	Fuel Cells with Nanomaterials for Ecologically Pure Transport. 2014 , 469-482		
1264	ETEM observation of Pt/C electrode catalysts in a moisturized cathode atmosphere. 2014 , 522, 012007		
1263	An Overview of Biomass-fuelled Proton Exchange Membrane Fuel Cell (PEMFC) Systems. 2015 , 75, 2003-2008		1
1262	Hybrid/Composite Membranes. 2015 , 365-448		1
1261	Aromatic Linear Polysulfones with Pendant Functional Groups. 2015 , 18-51		

1260	Overview of Electrochemical Polymer Electrolyte Membranes. 2015 , 1-60		
1259	The Art of Making Polymeric Membranes. 2015 , 33-66		2
1258	Process intensification of hydrogen production from Ethanol using microreactor. 2015 ,		
1257	Effects of SiO ₂ Nanoparticles Incorporated into Poly(Arylene Ether Sulfone Ketone) Multiblock Copolymer Electrolyte Membranes on Fuel Cell Performance at Low Humidity. 2015 , 83, 150-154		6
1256	Exohedral M-C ₆₀ and M ₂ -C ₆₀ (M = Pt, Pd) systems as tunable-gap building blocks for nanoarchitecture and nanocatalysis. 2015 , 143, 114308		5
1255	Ex Situ Characterization Method for Flooding in Gas Diffusion Layers and Membrane Electrode Assemblies With a Hydrophilic Gas Diffusion Layer. 2015 , 12,		2
1254	Recent Developments on Alternative Proton Exchange Membranes: Strategies for Systematic Performance Improvement. 2015 , 3, 675-691		65
1253	Nafion-115/aromatic poly(etherimide) with isopropylidene groups/imidazole membranes for polymer fuel cells. 2015 , 132, n/a-n/a		3
1252	Synthesis and characterization of sulfonated fluorinated block copolymer membranes with different esterified initiators for DMFC applications. 2015 , 132, n/a-n/a		4
1251	. 2015 ,		3
1250	Alternative Energy of the Future: A Technical Note of PEM Fuel Cell Water Management. 2015 , 05,		1
1249	Development and Characterization of Non-Conventional Micro-Porous Layers for PEM Fuel Cells. 2015 , 8, 7070-7083		13
1248	Model of Water Sorption and Swelling in Polymer Electrolyte Membranes: Diagnostic Applications. 2015 , 119, 8165-75		11
1247	Effect of benzimidazole configuration in polybenzimidazole chain on interaction with phosphoric acid: a DFT study. 2015 , 119, 592-603		13
1246	Mechanical Properties of Composite SPEEK Polymer Membranes Modified with Ionic Liquids. 2015 , 77, 012043		5
1245	A mini-review on anion exchange membranes for fuel cell applications: Stability issue and addressing strategies. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 7348-7360	6.7	207
1244	Double-layer gas diffusion media for improved water management in polymer electrolyte membrane fuel cells. 2015 , 292, 39-48		20
1243	Fluorinated Polyimides: Synthesis, Properties, and Applications. 2015 , 97-185		8

1242	Parameter extraction of different fuel cell models with transferred adaptive differential evolution. 2015 , 86, 139-151		45
1241	Organic-Inorganic Polymer Hybrids: Synthetic Strategies and Applications. 2015 , 11-63		10
1240	One-dimensional water cages with repeat units of (H ₂ O) ₂₄ resembling pagodane trapped in a 3D coordination polymer: proton conduction and tunable luminescence emission by adsorption of anionic dyes. 2015 , 17, 4439-4443		29
1239	Development of an optimal gas diffusion medium for polymer electrolyte membrane fuel cells and assessment of its degradation mechanisms. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 14596-14608	6.7	10
1238	KOH-doped polybenzimidazole for alkaline direct glycerol fuel cells. 2015 , 486, 239-247		27
1237	Porous Carbons In Hyperbranched Polymers In Polymer Solvation. 2015 ,		2
1236	Anhydrous proton exchange membranes at elevated temperatures: effect of protic ionic liquids and crosslinker on proton conductivity. 2015 , 5, 17683-17689		24
1235	Sulfonated poly(phenylsulfone)/fluorinated polybenzoxazole nanofiber composite membranes for proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 14421-14427	6.7	16
1234	Investigation of proton conductivity of PVDF based anhydrous proton exchange membranes (PEMs) obtained via a facile grafting through strategy. 2015 , 22, 1		8
1233	High proton conductivity of sulfonated methoxyphenyl-containing poly(arylene ether ketone) for proton exchange membranes. 2015 , 5, 107982-107991		9
1232	Double filler reinforced ionomers: a new approach to the design of composite membranes for fuel cell applications. 2015 , 3, 23530-23538		17
1231	Structure-property correlation of semifluorinated 6-membered co-SPIs for proton exchange membrane. 2015 , 73, 466-479		14
1230	ReaxFF Reactive Molecular Dynamics Simulation of Functionalized Poly(phenylene oxide) Anion Exchange Membrane. 2015 , 119, 27727-27736		47
1229	Investigation of titanium felt transport parameters for energy storage and hydrogen/oxygen production. 2015 ,		8
1228	Hydrogen production by steam reforming of dimethoxymethane over bifunctional CuO-ZnO/Al ₂ O ₃ catalyst. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 14052-14057	6.7	16
1227	Characteristics of a single chamber microbial fuel cell equipped with a low cost membrane. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 17380-17387	6.7	28
1226	A comparative study of the electro-osmotic behavior of cation and anion exchange membranes in alcohol-water media. 2015 , 154, 166-176		16
1225	3D-Branched Rigid-Flexible Hybrid Sulfonated Polyamide for Proton Exchange Membranes (PEMs) in Fuel Cell Applications. 2015 , 3, 155-161		13

1224	Morphology of Supported Polymer Electrolyte Ultrathin Films: A Numerical Study. 2015 , 119, 1201-1216	42
1223	Brine recovery using reverse electrodialysis in membrane-based desalination processes. 2015 , 362, 1-10	49
1222	Novel sulfonated poly (ether ether ketone)/silica coated carbon nanotubes high-performance composite membranes for direct methanol fuel cell. 2015 , 26, 457-464	35
1221	Comparative analysis between mass and volume of catalysts as a criterion to determine the optimal quantity of Nafion ionomer in catalyst layers. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 2840-2849	7
1220	High proton mobility, solvent induced single crystal to single crystal structural transformation, and related studies on a family of compounds formed from Mn ₃ oxo-clusters. 2015 , 54, 1254-71	33
1219	Power-to-What? Environmental assessment of energy storage systems. 2015 , 8, 389-400	294
1218	Cross-linked poly(arylene ether ketone) proton exchange membranes sulfonated on polymer backbone, pendant, and cross-linked sites for enhanced proton conductivity. 2015 , 270, 66-72	17
1217	A study, analysis and power management schemes for fuel cells. 2015 , 43, 1301-1319	32
1216	Synthesis of New Azole Phosphonate Precursors for Fuel Cells Proton Exchange Membranes. 2015 , 26, 236-248	5
1215	Structures of FePt clusters and their interactions with the O ₂ molecule. 2015 , 622, 34-41	14
1214	Direct ethanol fuel cells for transport and stationary applications [A comprehensive review. 2015 , 145, 80-103	317
1213	High proton conductivity membrane with coconut shell activated carbon. 2015 , 21, 1665-1674	5
1212	The effect of sulfonated poly (ether ether ketone) as the electrode ionomer for self-humidifying nanocomposite proton exchange membrane fuel cells. 2015 , 82, 746-757	42
1211	Dual electro-spray-assisted forced blending of thermodynamically immiscible polyelectrolyte mixtures. 2015 , 481, 28-35	9
1210	Enhanced proton conductivities of nanofibrous composite membranes enabled by acid-base pairs under hydrated and anhydrous conditions. 2015 , 482, 1-12	52
1209	Benzylmethyl-containing poly(arylene ether nitrile) as anion exchange membranes for alkaline fuel cells. 2015 , 481, 9-18	53
1208	Superprotonic Conductivity of a UiO-66 Framework Functionalized with Sulfonic Acid Groups by Facile Postsynthetic Oxidation. 2015 , 127, 5231-5235	63
1207	Platinum decorated on partially exfoliated multiwalled carbon nanotubes as high performance cathode catalyst for PEMFC. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 9435-9443	6.7 17

1206	Zirconium phosphate based proton conducting membrane for DMFC application. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 9410-9421	6.7	30
1205	Properties and fuel cell applications of polybenzimidazole and ethyl phosphoric acid grafted polybenzimidazole blend membranes. 2015 , 491, 10-21		36
1204	A review of the gas diffusion layer in proton exchange membrane fuel cells: Durability and degradation. 2015 , 155, 866-880		182
1203	Experimental study on the voltage uniformity for dynamic loading of a PEM fuel cell stack. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 7361-7369	6.7	37
1202	Experimental thermal analysis on air cooling for closed-cathode Polymer Electrolyte Membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 10605-10626	6.7	16
1201	Synthesis, Preparation, and Performance of Blends and Composites of Conjugated Polymers and their Copolymers in DMFCs. 2015 , 55, 630-677		32
1200	Dark fermentation biorefinery in the present and future (bio)chemical industry. 2015 , 14, 473-498		98
1199	Separators used in microbial electrochemical technologies: Current status and future prospects. 2015 , 195, 170-9		102
1198	A Thermodynamic Approach to Model Proton Conductivity of Nafion-117 Membranes: Temperature and Water Content Effects. 2015 , 162, F1096-F1100		8
1197	The Use of Per-Fluorinated Sulfonic Acid (PFSA) Membrane as Electrolyte in Fuel Cells. 2015 , 325-374		2
1196	Reduction of 4-nitrophenol to 4-aminophenol using a novel Pd@Ni ₃ BBiO ₂ /RGO nanocomposite: enhanced hydrogen spillover and high catalytic performance. 2015 , 5, 60658-60666		17
1195	Transport properties of sulfonated poly(ether ether ketone) membranes with counter-ion substitution. 2015 , 493, 414-427		13
1194	Parametric analysis of an irreversible proton exchange membrane fuel cell/absorption refrigerator hybrid system. 2015 , 85, 458-467		50
1193	Performance improvement of the open-cathode proton exchange membrane fuel cell by optimizing membrane electrode assemblies. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 7159-7167	6.7	22
1192	Electrochemical and structural characterization of sulfonated polysulfone. 2015 , 45, 185-193		22
1191	New Method for Super Hydrophobic Treatment of Gas Diffusion Layers for Proton Exchange Membrane Fuel Cells Using Electrochemical Reduction of Diazonium Salts. 2015 , 7, 15068-77		31
1190	Preparation and characterization of ammonium-functionalized polysulfone/Al ₂ O ₃ composite membranes. 2015 , 50, 5893-5903		11
1189	Microbial fuel cell as new technology for bioelectricity generation: A review. 2015 , 54, 745-756		435

1188	Synthesis and characterization of new membranes deriving from sulfonated polyethersulfone for PEMFC applications. 2015 , 56, 2637-2645		4
1187	Effect of acid/basic solutions contact on ion transport numbers and conductivity for an anion-exchange membrane. 2015 , 56, 3530-3534		2
1186	Constructing proton-conductive highways within an ionomer membrane by embedding sulfonated polymer brush modified graphene oxide. 2015 , 286, 445-457		117
1185	Studies of bibenzimidazole and imidazole influence on electrochemical properties of polymer fuel cells. 2015 , 164, 143-153		7
1184	Optimum design of bipolar plates for separate air flow cooling system of PEM fuel cells stacks. 2015 , 51, 1691-1703		2
1183	32.Sulfonic acid functionalization of 2-aminoterephthalate metalorganic framework and silica nanoparticles by surface initiated radical polymerization: as proton-conducting solid electrolytes. 2015 , 22, 1		14
1182	Theoretical methodology for calculating water uptake and ionic exchange capacity parameters of ionic exchange membranes with applications in fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 17316-17322	6.7	9
1181	Structure and ion-exchange properties of crystalline tungstoantimonic acid. 2015 , 51, 167-171		2
1180	Thin bonding layer using sulfonated poly(arylene ether sulfone)/PVdF blends for hydrocarbon-based membrane electrode assemblies. 2015 , 173, 268-275		14
1179	Fundamentals of Gas Permeation Through Membranes. 2015 , 11-35		6
1178	Air supply using an ionic wind generator in a proton exchange membrane fuel cell. 2015 , 284, 504-510		6
1177	Water gas shift membrane reactors. 2015 , 3-29		7
1176	Gas Separation Membranes. 2015 ,		97
1175	Ion Dynamics and Mechanical Properties of Sulfonated Polybenzimidazole Membranes for High-Temperature Proton Exchange Membrane Fuel Cells. 2015 , 119, 9745-9753		23
1174	Synthesis and characterization of new membranes based on sulfonated polysulfone/Zn,Al-heptamolibdate LDH. 2015 , 152, 125-127		8
1173	Superprotonic conductivity of a UiO-66 framework functionalized with sulfonic acid groups by facile postsynthetic oxidation. 2015 , 54, 5142-6		343
1172	Influence of conditions of polyaniline synthesis in perfluorinated membrane on electrotransport properties and surface morphology of composites. 2015 , 19, 2623-2631		22
1171	Electrochemically Stable Titanium Oxy-Nitride Support for Platinum Electro-Catalyst for PEM Fuel Cell Applications. 2015 , 167, 237-245		21

1170	Phenolphthalein-based Poly(arylene ether sulfone nitrile)s Multiblock Copolymers As Anion Exchange Membranes for Alkaline Fuel Cells. 2015 , 7, 8284-92		98
1169	Preparation, ex situ and in situ Characterization of Gas Diffusion Media Containing and Non-Containing Carboxymethylcellulose for PEM Fuel Cells. 2015 , 15, 463-471		5
1168	Nanostructured Ionomeric Membranes for Direct Methanol Fuel Cell. 2015 , 57, 103-114		1
1167	Radiation-Grafted Polymer Electrolyte Membranes for Water Electrolysis Cells: Evaluation of Key Membrane Properties. 2015 , 7, 22203-12		41
1166	Sediment microbial fuel cells as a new source of renewable and sustainable energy: present status and future prospects. 2015 , 5, 94171-94183		55
1165	Direct measurement of methanol crossover fluxes under land and channel in direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 10969-10978	6.7	8
1164	Fault-tolerant control for PEMFC and its DC/DC converter. 2015 ,		
1163	Maleimide: a potential building block for the design of proton exchange membranes studied by ab initio molecular dynamics simulations. 2015 , 5, 80220-80227		4
1162	Performance assessment of an integrated PEFC and an hydrogen storage device based on innovative material. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 17388-17393	6.7	2
1161	The effect of binder content on the performance of a high temperature polymer electrolyte membrane fuel cell produced with reactive spray deposition technology. 2015 , 177, 190-200		24
1160	Microstructure and properties of novel SPEEK/PVDF-g-PSSA blends for proton exchange membrane with improved compatibility. 2015 , 5, 69621-69628		20
1159	Performance of a low-cost direct glucose fuel cell with an anion-exchange membrane. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 10979-10984	6.7	49
1158	Characterization and Chemical Stability of Anion Exchange Membranes Cross-Linked with Polar Electron-Donating Linkers. 2015 , 162, F1047-F1055		46
1157	Effect of carbon dioxide on the contamination of low temperature and high temperature PEM (polymer electrolyte membrane) fuel cells. Influence of temperature, relative humidity and analysis of regeneration processes. 2015 , 90, 299-309		22
1156	Polybenzimidazole-multiwall carbon nanotubes composite membranes for polymer electrolyte membrane fuel cells. 2015 , 300, 229-237		26
1155	Gas Permeation through Nafion. Part 1: Measurements. 2015 , 119, 25145-25155		105
1154	Sustainable Energy Application. 2015 , 233-296		4
1153	Novel sulfonated Nafion [®] -based composite membranes with pillararene as selective artificial proton channels for application in direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 13071-13079	6.7	25

1152	Approaches to polymer electrolyte membrane fuel cells (PEMFCs) and their cost. 2015 , 52, 897-906		129
1151	Preparation and characterization of zeolite polymer composite proton exchange membrane. 2015 , 1-9		1
1150	Electrochemical investigation of stainless steel corrosion in a proton exchange membrane electrolyzer cell. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 12506-12511	6.7	39
1149	Electrochemical and physicochemical properties of titanium Oxy-nitride electrocatalyst prepared by sol-gel methods for the oxygen reduction reaction purposes. 2015 , 19, 3097-3109		3
1148	Novel concept of polymer electrolyte membranes for high-temperature fuel cells based on ETFE grafted with neutral acrylic monomers. 2015 , 495, 20-28		11
1147	Behavior of ionic species in sulfonated PEI using DFT simulations: A study to determine ionic conductivity. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 17332-17337	6.7	3
1146	Phosphoric acid-doped ionic liquid-functionalized graphene oxide/sulfonated polyimide composites as proton exchange membrane. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 13964-13978	6.7	81
1145	Conductivity Modulation in Polymer Electrolytes and their Composites due to Ion-Beam Irradiation. 2015 , 239, 110-148		2
1144	New semi-IPN PEMFC membranes composed of crosslinked fluorinated copolymer bearing triazole groups and sPEEK for operation at low relative humidity. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 16797-16813	6.7	15
1143	Modification for Uniform Surface of Nafion Ultrathin Film Deposited by Inkjet Printing. 2015 , 31, 10137-44		12
1142	Liquid water transport characteristics of porous diffusion media in polymer electrolyte membrane fuel cells: A review. 2015 , 299, 85-96		53
1141	Proton exchange membranes based on sulfonated poly(arylene ether ketone) containing triazole group for enhanced proton conductivity. 2015 , 496, 13-20		34
1140	Composite sPEEK-TPyP membranes development for portable applications. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 17394-17401	6.7	11
1139	Biomass-fuelled PEMFC systems: Evaluation of two conversion paths relevant for different raw materials. 2015 , 106, 1183-1191		7
1138	Nanomaterials in Proton Exchange Fuel Cells. 2015 , 88, 1554-1568		5
1137	Dispersing Pt and Pd atoms on Au nanoparticles deposited on n-GaN substrates for formic acid oxidation. 2015 , 5, 92757-92761		5
1136	Simultaneous biohydrogen production and purification in a double-membrane bioreactor system. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 1690-1697	6.7	55
1135	Performance of bifunctional $\text{BiOx}/\text{Al}_2\text{O}_3$ catalyst in dimethoxymethane steam reforming to hydrogen-rich gas for fuel cell feeding. 2015 , 166-167, 535-543		29

1134	Fabrication of low-methanol-permeability sulfonated poly(phenylene oxide) membranes with hollow glass microspheres for direct methanol fuel cells. 2015 , 276, 309-319		34
1133	Orthogonal design study on factors affecting the diameter of perfluorinated sulfonic acid nanofibers during electrospinning. 2015 , 132, n/a-n/a		14
1132	Investigation of the interactions between proton exchange membrane fuel cell and interleaved DC/DC boost converter in case of power switch faults. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 519-537	6.7	44
1131	Hydrogen production from methanol steam reforming using porous copper fiber sintered felt with gradient porosity. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 244-255	6.7	50
1130	Effect of Pt-Cs ₂ H _{0.5} PW ₁₂ O ₄₀ catalyst addition on durability of self-humidifying nanocomposite membranes based on sulfonated poly (ether ether ketone) for proton exchange membrane fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 549-560	6.7	29
1129	Solution blown sulfonated poly(ether ether ketone) nanofiber/Nafion composite membranes for proton exchange membrane fuel cells. 2015 , 5, 4934-4940		60
1128	Electrochemical properties of PEM fuel cells based on Nafion/polybenzimidazole/imidazole hybrid membranes. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 833-840	6.7	23
1127	Low methanol permeable crosslinked sulfonated poly(phenylene oxide) membranes with hollow glass microspheres for direct methanol fuel cells. 2015 , 56, 178-188		10
1126	A review of polymer/nanocomposite electrolyte membranes for fuel cell application. 2015 , 21, 36-52		318
1125	Effect of sulfonated poly(arylene ether sulfone) binder on the performance of polymer electrolyte membrane fuel cells. 2015 , 23, 316-320		12
1124	New anhydrous proton exchange membranes for high-temperature fuel cells based on PVDF/BVP blended polymers. 2015 , 3, 148-155		78
1123	Novel sulfonated poly(arylene ether sulfone) containing hydroxyl groups for enhanced proton exchange membrane properties. 2015 , 6, 233-239		21
1122	Synthesis and characterization of sulfonated poly(aromatic imide-co-aliphatic imide) (S-coPI) membrane for direct methanol fuel cells. 2015 , 72, 281-294		2
1121	Enhancement of counter-ion transport through ion-exchange membranes in electro-dialytic processes. 2015 , 56, 2631-2636		1
1120	Novel Polyamide Proton Exchange Membranes with Bi-Functional Sulfonimide Bridges for Fuel Cell Applications. 2015 , 151, 168-176		15
1119	Functionalization of polymeric materials as a high performance membrane for direct methanol fuel cell: A review. 2015 , 86, 248-258		93
1118	Reversible tuning of chemical structure of Nafion cast film by heat and acid treatment. 2015 , 119, 2395-403		6
1117	Partially sulfonated polyaniline induced high ion-exchange capacity and selectivity of Nafion membrane for application in direct methanol fuel cells. 2015 , 473, 94-101		75

1116	One-pot to fabrication of calcium oxide/carbon foam composites for the adsorption of trace SO ₂ . 2015 , 259, 894-899	13
1115	Synthesis of Highly Sulfonated Poly(arylene ether) Containing Multiphenyl for Proton Exchange Membrane Materials. 2016 , 2016, 1-8	2
1114	Fumed Silica Nanoparticles Incorporated in Quaternized Poly(Vinyl Alcohol) Nanocomposite Membrane for Enhanced Power Densities in Direct Alcohol Alkaline Fuel Cells. 2016 , 9, 15	23
1113	A Review on Chitosan Utilization in Membrane Synthesis. 2016 , 3, 134-158	33
1112	Sulfonated poly(meta-phenylene isophthalamide)s as proton exchange membranes. 2016 , 54, 2582-2592	6
1111	Modification of sulfonated poly(ether ether ketone) membranes by impregnation with the ionic liquid 1-butyl-3-methylimidazolium tetrafluoroborate for proton exchange membrane fuel cell applications. 2016 , 56, 1037-1044	15
1110	Development of Charge-Transfer Complex Hybrid Films as Polymer Electrolyte Membrane for High Temperature PEFC Operation. 2016 , 217, 654-663	5
1109	Electrocatalytic Performance of Palladium Dendrites Deposited on Titania Nanotubes for Formic Acid Oxidation. 2016 , 16, 656-661	18
1108	Polymerized Paired Ions as Polymeric Ionic Liquid-Proton Conductivity. 2016 , 37, 1218-25	13
1107	The Enhancement on Proton Conductivity of Stable Polyoxometalate-Based Coordination Polymers by the Synergistic Effect of MultiProton Units. 2016 , 22, 9299-304	35
1106	Effect of clay modification on the structure and properties of sulfonated poly(ether ether ketone)/clay nanocomposites. 2016 , 37, 2632-2638	22
1105	Nanoscale Distribution of Sulfonic Acid Groups Determines Structure and Binding of Water in Nafion Membranes. 2016 , 128, 4079-4083	4
1104	Microbial fuel cells in bioelectricity production. 2016 , 9, 252-266	65
1103	Effect of pore-directing agents and silanol groups in mesoporous silica nanoparticles as Nafion fillers on the performance of DMFCs. 2016 , 6, 111666-111680	5
1102	Deposition kinetics and characterization of stable ionomers from hexamethyldisiloxane and methacrylic acid by plasma enhanced chemical vapor deposition. 2016 , 119, 135307	7
1101	In Situ Growth and Characterization of Metal Oxide Nanoparticles within Polyelectrolyte Membranes. 2016 , 128, 11694-11699	1
1100	Effect of modification of the MF-4SC membranes in the potassium form with acid salts of heteropolyacids on membrane properties and characteristics of dp sensors based on them. 2016 , 61, 1512-1517	4
1099	Synthesis and Characterization of Sulfonated Graphene Oxide Nanofiller for Polymer Electrolyte Membrane. 2016 , 160, 012035	6

1098	Nitrogen and sulfur co-doped mesoporous carbon as cathode catalyst for H ₂ /O ₂ alkaline membrane fuel cell Effect of catalyst/bonding layer loading. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 9159-9166	6.7	13
1097	Ether cleavage-triggered degradation of benzyl alkylammonium cations for polyethersulfone anion exchange membranes. 2016 , 18, 12009-23		71
1096	Ultrafast proton transport in sub-1-nm diameter carbon nanotube porins. 2016 , 11, 639-44		137
1095	Modification of SPPEsk proton exchange membranes through layer-by-layer self-assembly. 2016 , 133, n/a-n/a		3
1094	Surface modification of mordenite in Nafion composite membrane for direct ethanol fuel cell and its characterizations: Effect of types of silane coupling agent. 2016 , 4, 2637-2646		10
1093	Low-temperature fuel cells: Outlook for application in energy storage systems and materials for their development. 2016 , 63, 385-398		21
1092	An inorganic mesoporous membrane in situ-doped with Cs _{2.5} H _{0.5} PW ₁₂ O ₄₀ for high temperature proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 15783-15789	6.7	7
1091	A review on synthesis and characterization of solid acid materials for fuel cell applications. 2016 , 322, 77-92		30
1090	Radiation-grafted materials for energy conversion and energy storage applications. 2016 , 63, 1-41		47
1089	New cation-exchange membranes based on cross-linked sulfonated polystyrene and polyethylene for power generation systems. 2016 , 515, 196-203		57
1088	Effect of sulfonated graphene oxide on the performance enhancement of acid-base composite membranes for direct methanol fuel cells. 2016 , 6, 51599-51608		43
1087	Molecular dynamics simulations of modified PEEK polymeric membrane for fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 7641-7648	6.7	33
1086	New approaches towards novel composite and multilayer membranes for intermediate temperature-polymer electrolyte fuel cells and direct methanol fuel cells. 2016 , 316, 139-159		93
1085	Improving the mechanical stability of proton conducting SPEEK membranes by in situ precipitation of zirconium phosphate phenylphosphonates. 2016 , 6, 36606-36614		8
1084	Multi-block copolymers with fluorene-containing hydrophilic segments densely functionalized by side-chain quaternary ammonium groups as anion exchange membranes. 2016 , 6, 41453-41464		11
1083	Engineering the proton conductivity of metal-organic hybrid materials by varying the coordination mode of the ligand. 2016 , 18, 3300-3305		11
1082	Imidazolium-Functionalized Poly(arylene ether sulfone) Anion-Exchange Membranes Densely Grafted with Flexible Side Chains for Fuel Cells. 2016 , 8, 25279-88		114
1081	The influence of water channel geometry and proton mobility on the conductivity of Nafion [®] . 2016 , 214, 362-369		18

1080	Anion conducting multiblock copolymer membranes with partial fluorination and long head-group tethers. 2016 , 4, 16233-16244		60
1079	Polybenzimidazole composite with acidic surfactant like molecules: A unique approach to develop PEM for fuel cell. 2016 , 84, 421-434		17
1078	Thickness Dependence of Acidity and Microstructure in Nafion Films. 2016 , 1, 2277-2283		3
1077	Characteristics of non-platinum cathode catalysts for a hydrogen-oxygen fuel cell with proton- and anion-conducting electrolytes. 2016 , 8, 265-273		3
1076	Polymer-inorganic hybrid proton conductive membranes: Effect of the interfacial transfer pathways. 2016 , 212, 426-439		37
1075	Tuning Proton Conductivity by Interstitial Guest Change in Size-Adjustable Nanopores of a Cu-MOF: A Potential Platform for Versatile Proton Carriers. 2016 , 22, 16277-16285		27
1074	Enhanced proton conductivity of Nafion nanohybrid membrane incorporated with phosphonic acid functionalized graphene oxide at elevated temperature and low humidity. 2016 , 518, 243-253		79
1073	Plasma-Polymerized Membranes with High Proton Conductivity for a Micro Semi-Passive Direct Methanol Fuel Cell. 2016 , 13, 105-115		6
1072	Pendant dual sulfonated poly(arylene ether ketone) proton exchange membranes for fuel cell application. 2016 , 328, 355-363		48
1071	A novel electrospun Microtube Array Membrane (MTAM) based low cost conceptual tubular Microbial Fuel Cell (MFC). 2016 , 83, 138-147		7
1070	A magnesium-based bifunctional MOF: Studies on proton conductivity, gas and water adsorption. 2016 , 453, 321-329		10
1069	A new strategy for designing high-performance sulfonated poly(ether ether ketone) polymer electrolyte membranes using inorganic proton conductor-functionalized carbon nanotubes. 2016 , 325, 453-464		90
1068	Sulfonated poly(ether imide)s with fluorenyl and trifluoromethyl groups: Application in microbial fuel cell (MFC). 2016 , 83, 114-128		19
1067	[Not Available]. 2016 , 120, 7225-39		18
1066	Fuel cell system degradation analysis of a Chinese plug-in hybrid fuel cell city bus. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 15295-15310	6.7	52
1065	In Situ Growth and Characterization of Metal Oxide Nanoparticles within Polyelectrolyte Membranes. 2016 , 55, 11522-7		12
1064	Membranes and separators for microbial fuel cells. 2016 , 153-178		4
1063	A review on microstructure reconstruction of PEM fuel cells porous electrodes for pore scale simulation. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 20276-20293	6.7	72

1062	Thermodynamic analysis and optimization of a waste heat recovery system for proton exchange membrane fuel cell using transcritical carbon dioxide cycle and cold energy of liquefied natural gas. 2016 , 34, 428-438		64
1061	A polybenzimidazole/graphite oxide based three layer membrane for intermediate temperature polymer electrolyte membrane fuel cells. 2016 , 6, 72224-72229		10
1060	Thermally Stable Super Ionic Conductor from Carbon Sphere Oxide. 2016 , 11, 2322-7		15
1059	Comparative Kinetic Analysis of Closed-Ended and Open-Ended Porous Sensors. 2016 , 11, 395		18
1058	Advances in the design of self-supported ion-conducting membranes [New family of columnar liquid crystalline polyamines. Part 2: Ion transport characterisation and comparison to hybrid membranes. 2016 , 105, 234-242		4
1057	Facile synthesis of platinum alloy electrocatalyst via aluminum reducing agent and the effect of post heat treatment for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 22952-22962	6.7	4
1056	Side-chain-type quaternized naphthalene-based poly(arylene ether ketone)s for anhydrous high temperature proton exchange membranes. 2016 , 6, 98854-98860		3
1055	Nafion [®] nanocomposite membranes with enhanced properties at high temperature and low humidity environments. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 22406-22414	6.7	40
1054	Effect of block composition on the morphology, hydration, and transport properties of sulfonated PS-b-PEGPEM-b-PS. 2016 , 133,		5
1053	Protic organic ionic plastic crystals based on a difunctional cation and the triflate anion: a new solid-state proton conductor. 2016 , 52, 14097-14100		16
1052	Molecular dynamics study of the effect of wettability of the carbon support on proton transport in Nafion ionomer thin films. 2016 , 11, JTST0045-JTST0045		6
1051	Modeling and experimental verification of a 25W fabricated PEM fuel cell by parametric and GMDH-type neural network. 2016 , 17, 105		38
1050	Dynamics of oxygen scattering on ionomer surface in catalyst layer of PEFC. 2016 ,		
1049	Phthalonitrile end-capped sulfonated polyarylene ether nitriles for low-swelling proton exchange membranes. 2016 , 23, 1		7
1048	Polymerelektrolytmembranen für Hoch- und Niedertemperatur-Brennstoffzellen aus strahlungsinduzierter Pfropfcopolymerisation. 2016 , 88, 607-615		2
1047	Nanoscale Distribution of Sulfonic Acid Groups Determines Structure and Binding of Water in Nafion Membranes. 2016 , 55, 4011-5		37
1046	Investigation of self-humidified and dead-ended anode proton exchange membrane fuel cell performance using electrochemical impedance spectroscopy. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 12347-12357	6.7	14
1045	Preparation and evaluation of Nafion/SnO ₂ nanocomposite for improving the chemical durability of proton exchange membranes in fuel cells. 2016 , 6, 56819-56826		21

1044	PEG based hybrid composite membranes and their properties for H ₂ /O ₂ fuel cells. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 10896-10906	6.7	4
1043	Investigation and optimization of physicochemical properties of sulfated zirconia/sulfonated poly(ether ether ketone) nanocomposite membranes for medium temperature proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 12293-12306	6.7	57
1042	Electrospun nanofibre composite polymer electrolyte fuel cell and electrolysis membranes. 2016 , 26, 729-745		94
1041	Aluminium complexes of B- and N-based hydrides: Synthesis, structures and hydrogen storage properties. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 15489-15504	6.7	24
1040	Membrane electrolysis history, current status and perspective. 2016 , 209, 737-756		169
1039	Prospects of practical application of hybrid membranes. 2016 , 56, 281-293		40
1038	Clay/Carbon Nanotubes Hybrid Materials for Nanocomposite Membranes: Advantages of Branched Structure for Proton Transport under Low Humidity Conditions in PEMFCs. 2016 , 120, 2574-2584		39
1037	Synergistic incorporation of hybrid heterobimetallic nitrogen atoms into carbon structures for superior oxygen electroreduction performance. 2016 , 6, 2085-2091		12
1036	Influence of acid pretreatment on ionic conductivity of Nafion [®] membranes. 2016 , 500, 225-235		54
1035	Electrocatalytic and transport properties of hybrid Nafion [®] membranes doped with silica and cesium acid salt of phosphotungstic acid in hydrogen fuel cells. 2016 , 305, 121-128		39
1034	Crosslinked ethyl phosphoric acid grafted polybenzimidazole and polybenzimidazole blend membranes for high-temperature proton exchange membrane fuel cells. 2016 , 23, 1		22
1033	SPPO pore-filled composite membranes with electrically aligned ion channels via a lab-scale continuous caster for fuel cells: An optimal DC electric field strength-IEC relationship. 2016 , 501, 15-23		14
1032	Membranes for direct ethanol fuel cells: An overview. 2016 , 163, 334-342		109
1031	Electrical conductivity of sulfonated poly(ether ether ketone) based composite membranes containing sulfonated polyhedral oligosilsesquioxane. 2016 , 305, 54-63		20
1030	Embedding sulfonated lithium ion-sieves into polyelectrolyte membrane to construct efficient proton conduction pathways. 2016 , 501, 109-122		19
1029	Improvement in the performance of low temperature H ₂ /O ₂ fuel cell with chitosan/phosphotungstic acid composite membranes. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 5389-5395	6.7	21
1028	Layer-by-layer modification of Nafion membranes for increased life-time and efficiency of vanadium/air redox flow batteries. 2016 , 510, 259-269		45
1027	Interplay between Electrical Relaxation and Structural Properties in Hybrid Membrane Based on PVDF/PIFP and Functionalized Silica Network. 2016 , 120, 6963-6970		3

1026	Nitrogen and sulphur co-doped crumbled graphene for the oxygen reduction reaction with improved activity and stability in acidic medium. 2016 , 4, 6014-6020		39
1025	Preparation and characterization of phosphonic acid functionalized siloxane/polyimide composite proton exchange membranes. 2016 , 287, 1-7		15
1024	Improving the comprehensive performances of phosphonic acid functionalized poly(ether sulfone) by compositing with 1H-1,2,3-triazol-4-yl functionalized poly(ether sulfone). <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 4740-4750	6.7	12
1023	Mechanism for Forming B,C,N,O Rings from NH ₃ BH ₃ and CO ₂ via Reaction Discovery Computations. 2016 , 120, 1135-44		14
1022	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. 2016 , 96, 314-324		30
1021	Enhanced power generation using a novel polymer-coated nanoparticles dispersed-carbon micro-nanofibers-based air-cathode in a membrane-less single chamber microbial fuel cell. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 1237-1247	6.7	64
1020	Intensification of hydrogen production by methanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 5250-5259	6.7	28
1019	Fuel cell systems reliability and availability enhancement by developing a fast and efficient power switch open-circuit fault detection algorithm in interleaved DC/DC boost converter topologies. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 15505-15517	6.7	23
1018	Alkaline anion exchange membranes based on KOH-treated multilayer graphene oxide. 2016 , 508, 51-61		53
1017	Interface and strain effects on the H-sorption thermodynamics of size-selected Mg nanodots. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 9841-9851	6.7	12
1016	Rectified Proton Grotthuss Conduction Across a Long Water-Wire in the Test Nanotube of the Polytheonamide B Channel. 2016 , 138, 4168-77		34
1015	Methanol oxidation on sputter-coated platinum oxide catalysts. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 265-275	6.7	15
1014	One-pot synthesis of inorganic/organic hybrid membranes from organoalkoxysilane, hydroimidazole derivative, and cyclic sulfonic acid ester. 2016 , 51, 3398-3407		6
1013	Power switch failures tolerance and remedial strategies of a 4-leg floating interleaved DC/DC boost converter for photovoltaic/fuel cell applications. 2016 , 90, 14-27		24
1012	Side-chain-type phenolphthalein-based poly(arylene ether sulfone nitrile)s anion exchange membrane for fuel cells. 2016 , 502, 94-105		31
1011	Degradations analysis and aging modeling for health assessment and prognostics of PEMFC. 2016 , 148, 78-95		125
1010	Biopolymer-based electrolyte membranes from chitosan incorporated with montmorillonite-crosslinked GPTMS for direct methanol fuel cells. 2016 , 6, 2314-2322		44
1009	Ab initio study of cationic polymeric membranes in water and methanol. 2016 , 22, 357-367		6

1008	A flexible all-inorganic fuel cell membrane with conductivity above Nafion, and durable operation at 150 °C. 2016 , 303, 142-149		18
1007	Modeling of cryo-adsorption of hydrogen on MOF-5 pellets: Effect of pellet properties on moderate pressure refueling. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 342-354	6.7	11
1006	Study of hydrogen crossover and proton conductivity of self-humidifying nanocomposite proton exchange membrane based on sulfonated poly (ether ether ketone). 2016 , 94, 292-303		37
1005	Hydrogen fuel cells for portable applications. 2016 , 111-131		8
1004	Effect of the presence of partially sulfonated polyaniline on the proton and methanol transport behavior of partially sulfonated PVdF membrane. 2016 , 48, 301-309		33
1003	Synthesis, characterization, and electrochemical properties of smectic pyridinium salts with inorganic dihydrogen phosphate ions. 2016 , 22, 85-92		6
1002	Mechanical properties of stainless steel composites with titanium carbonitride consolidated by spark plasma sintering. 2016 , 50, 1567-1572		
1001	Optimal proton exchange membrane fuel cell modelling based on hybrid Teaching Learning Based Optimization (Differential Evolution algorithm). 2016 , 7, 347-360		63
1000	Application of modified chitosan membrane for microbial fuel cell: Roles of proton carrier site and positive charge. 2017 , 142, 1274-1282		32
999	A new study on improving the physicochemical and electrochemical properties of SPEEK nanocomposite membranes for medium temperature proton exchange membrane fuel cells using different loading of zirconium oxide nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 590-602	6.7	54
998	The fabrication and characteristics of electroless nickel and immersion Au-polytetrafluoroethylene composite coating on aluminum alloy 5052 as bipolar plate. 2017 , 313, 151-157		15
997	Safe and Green Modified Ostrich Eggshell Membranes as Dual Functional Fuel Cell Membranes. 2017 , 31, 2017-2023		15
996	Computer simulation to investigate proton transport and conductivity in perfluorosulfonate ionomeric membrane. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 3981-3986	6.7	15
995	Sulfonic Group Functionalized Mixed Ligand Coordination Polymers: Synthesis, Characterization, Water Sorption, and Proton Conduction Studies. 2017 , 56, 1581-1590		51
994	Novel hybrid fuzzy-PID control scheme for air supply in PEM fuel-cell-based systems. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 10435-10447	6.7	70
993	Polarity governed selective amplification of through plane proton shuttling in proton exchange membrane fuel cells. 2017 , 19, 7751-7759		8
992	Nitrile functionalized graphene oxide for highly selective sulfonated poly(arylene ether nitrile)-based proton-conducting membranes. 2017 , 7, 2971-2978		10
991	Thermal studies on proton conductive copolymer thin films based on perfluoroacrylates synthesized by initiated Chemical Vapor Deposition. 2017 , 635, 3-8		6

990	Engineering aspects of the design, construction and performance of modular redox flow batteries for energy storage. 2017 , 11, 119-153		160
989	SPEEK/Zeolite/Ionic-Liquid Anhydrous Polymer Membranes for Fuel-Cell Applications. 2017 , 2017, 2369-2376	19	
988	Comprehensive investigation of physicochemical and electrochemical properties of sulfonated poly(ether ether ketone) membranes with different degrees of sulfonation for proton exchange membrane fuel cell applications. 2017 , 125, 614-628		86
987	Synthesis and Properties of Poly(ether sulfone)s with Clustered Sulfonic Groups for PEMFC Applications under Various Relative Humidity. 2017 , 9, 9805-9814		15
986	High power generation and COD removal in a microbial fuel cell operated by a novel sulfonated PES/PES blend proton exchange membrane. 2017 , 125, 427-438		67
985	Influence of alkaline 2D carbon nitride nanosheets as fillers for anchoring HPW and improving conductivity of SPEEK nanocomposite membranes. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 10317-10328	6.7	33
984	Studies of sulfonated poly(phenylene)-block-poly(ethersulfone) for proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 12768-12776	6.7	18
983	Effect of block composition on the morphology and transport properties of sulfonated fluoroblock copolymer blend membranes. 2017 , 57, 1262-1272		0
982	Simultaneous wastewater treatment and bioelectricity production in microbial fuel cells using cross-linked chitosan-graphene oxide mixed-matrix membranes. 2017 , 24, 13782-13796		27
981	High level of solid superacid coated poly(vinylidene fluoride) electrospun nanofiber composite polymer electrolyte membranes. 2017 , 535, 113-121		35
980	Proton Transfer in Perfluorosulfonic Acid Fuel Cell Membranes with Differing Pendant Chains and Equivalent Weights. 2017 , 121, 4544-4553		8
979	Dynamics of structural diffusion in phosphoric acid hydrogen-bond clusters. 2017 , 7, 21492-21506		5
978	Molecular Analysis of Structural Effect of Ionomer on Oxygen Permeation Properties in PEFC. 2017 , 164, F628-F637		43
977	Poly(arylene ether ketone) with pendant pyridinium groups for alkaline fuel cell membranes. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 12496-12506	6.7	28
976	Density Measurements and Partial Molar Volume Analysis of Different Membranes for Polymer Electrolyte Membrane Fuel Cells. 2017 , 242, 307-314		13
975	Progress and directions in low-cost redox-flow batteries for large-scale energy storage. 2017 , 4, 91-105		85
974	Electrochemical Promotional Role of Under-Rib Convection-Based Flow-Field in Polymer Electrolyte Membrane Fuel Cells. 2017 , 241-310		
973	Effect of sulfonated groups on the proton and methanol transport behavior of irradiated PS/PEVA membrane. 2017 , 21, 130-143		4

972	An Overview of Chemical and Mechanical Stabilities of Polymer Electrolytes Membrane. 2017 , 327-340		1
971	Proton Conducting Polymer Electrolytes for Fuel Cells via Electrospinning Technique. 2017 , 421-458		
970	Organic/TiO ₂ Nanocomposite Membranes: Recent Developments. 2017 , 25-46		
969	Preparation and characterization of proton exchange membranes with through-membrane proton conducting channels. 2017 , 23, 2359-2366		4
968	Role of hydrophilic groups in acid intercalated graphene oxide as a superionic conductor. 2017 , 7, 21901-21905	25	
967	Organic-Inorganic Composite Polymer Electrolyte Membranes. 2017 ,		5
966	Facile tailor-made enhancement in proton conductivity of sulfonated poly(ether ether ketone) by graphene oxide nanosheet for polymer electrolyte membrane fuel cell applications. 2017 , 295, 1059-1069		17
965	Enhanced performance of DMFC prepared by 10Cu/CeO ₂ catalyst and nanocomposite SPVA membranes with layer-by-layer coating of polyacrylic acid and chitosan. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 13198-13208	6.7	3
964	Proton conducting Gel Polymer Electrolytes for supercapacitor applications. 2017 , 242, 31-37		38
963	Hierarchical Porous Polybenzimidazole Microsieves: An Efficient Architecture for Anhydrous Proton Transport via Polyionic Liquids. 2017 , 9, 14844-14857		18
962	A comprehensive review on unitized regenerative fuel cells: Crucial challenges and developments. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 4415-4433	6.7	69
961	Synthesis of poly(arylene ether ketone) containing phenylsulfonic acid pendant for proton exchange membrane. 2017 , 29, 1232-1240		8
960	Spiny Rhombic Dodecahedral CuPt Nanoframes with Enhanced Catalytic Performance Synthesized from Cu Nanocube Templates. 2017 , 29, 5681-5692		68
959	Maximizing the right stuff: The trade-off between membrane permeability and selectivity. 2017 , 356,		1187
958	Synthesis and characterization of sulfonated PEEK-WC-PES copolymers for fuel cell proton exchange membrane application. 2017 , 93, 390-402		16
957	Polymer-Inorganic Nanocomposites for Polymer Electrolyte Membrane Fuel Cells. 2017 , 577-606		3
956	A Basic Overview of Fuel Cells: Thermodynamics and Cell Efficiency. 2017 , 193-217		
955	Power management in fuel cell based hybrid systems. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 14980-14989	6.7	16

954	Influence of the water state on the ionic conductivity of ion-exchange membranes based on polyethylene and sulfonated grafted polystyrene. 2017 , 197, 192-199		20
953	Electrochemical Energy Systems and Power Sources: Fuel Cells. 2017 , 291-361		
952	Fabrication Techniques for the Polymer Electrolyte Membranes for Fuel Cells. 2017 , 359-380		1
951	Fuel Cells: Construction, Design, and Materials. 2017 , 399-420		
950	Nanomaterials for lithium-ion batteries and hydrogen energy. 2017 , 89, 1185-1194		26
949	Facile fabrication of PtPd alloyed worm-like nanoparticles for electrocatalytic reduction of oxygen. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 17112-17121	6.7	20
948	Mechanisms for ion retention in molecular water clusters in a planar nanopore against the background of thermal fluctuations. 2017 , 79, 399-413		2
947	An acid-stable hexaphosphate ester based metal-organic framework and its polymer composite as proton exchange membrane. 2017 , 5, 12943-12950		72
946	NMR investigation on nanocomposite membranes based on organosilica layered materials bearing different functional groups for PEMFCs. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 27940-27949	6.7	18
945	A rotating rod electrode disk as an alternative to the rotating disk electrode for medium-temperature electrolytes, Part II: An example of the application in an investigation of the oxygen reduction reaction on a Pt/C catalyst by the thin film method in hot concentrated H ₃ PO ₄ . 2017 , 245, 597-606		2
944	Improving electro dialysis based water desalination using a sulfonated Diels-Alder poly(phenylene). 2017 , 531, 103-110		18
943	Development of a low temperature decal transfer method for the fabrication of proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 11813-11822	6.7	29
942	Proton Conductance of a Superior Water-Stable Metal-Organic Framework and Its Composite Membrane with Poly(vinylidene fluoride). 2017 , 56, 4169-4175		62
941	Shape and structural effects of R5-templated Pd nanomaterials as potent catalyst for oxygen electroreduction in alkaline media. 2017 , 52, 8016-8026		7
940	Poly(arylene ether)s bounded with disulfonaphthoxyl pendants by post functionalization for polymer electrolyte membrane application in fuel cells. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 12064-12075	6.7	10
939	Primary hydration and proton transfer of electrolyte acids: An ab initio study. 2017 , 306, 2-12		13
938	Reduced methanol crossover and enhanced proton transport in nanocomposite membranes based on clay/CNTs hybrid materials for direct methanol fuel cells. 2017 , 23, 2113-2123		21
937	Peptide A4 based AuAg alloyed nanoparticle networks for electrocatalytic reduction of oxygen. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 11295-11303	6.7	14

936	Experimental and theoretical analysis of ionomer/carbon ratio effect on PEM fuel cell cold start operation. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 12521-12530	6.7	38
935	Fluid flow and heat transfer performance in a micro-reactor with non-uniform micro-pin-fin arrays for hydrogen production at low Reynolds number. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 553-561	6.7	17
934	Efficient Pt electrocatalysts supported onto flavin mononucleotide-exfoliated pristine graphene for the methanol oxidation reaction. 2017 , 231, 386-395		19
933	Self-humidifying Pt-C/Pt-TiO ₂ dual-catalyst electrode membrane assembly for proton-exchange membrane fuel cells. 2017 , 120, 12-19		17
932	PdAu alloyed clusters supported by carbon nanosheets as efficient electrocatalysts for oxygen reduction. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 218-227	6.7	42
931	Degradation of radiation grafted hydroxide anion exchange membrane immersed in neutral pH: removal of vinylbenzyl trimethylammonium hydroxide due to oxidation. 2017 , 5, 1248-1267		46
930	Effect of pore-directing agents in SBA-15 nanoparticles on the performance of Nafion [®] /SBA-15n composite membranes for DMFC. 2017 , 526, 106-117		29
929	Thermo-mechanically stable sustainable polymer based solid electrolyte membranes for direct methanol fuel cell applications. 2017 , 526, 348-354		27
928	Effects of Graphene and Graphite on Properties of Highly Filled Polybenzoxazine Bipolar Plate for Proton Exchange Membrane Fuel Cell: A Comparative Study. 2017 , 211-259		1
927	A melamine formaldehydes resin route to in situ encapsulate Co ₂ O ₃ into carbon black for enhanced oxygen reduction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 25960-25968	6.7	8
926	Study on corrosion migrations within catalyst-coated membranes of proton exchange membrane electrolyzer cells. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 27343-27349	6.7	13
925	Design, fabrication and performance of a mixed-reactant membraneless micro direct methanol fuel cell stack. 2017 , 371, 10-17		29
924	Proton exchange membranes for fuel cell operation at low relative humidity and intermediate temperature: An updated review. 2017 , 5, 43-55		24
923	An efficient method exploiting the waste heat from a direct carbon fuel cell by means of a thermophotovoltaic cell. 2017 , 149, 424-431		21
922	Effect of height/width-tapered flow fields on the cell performance of polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 23107-23117	6.7	22
921	Novel structure design of composite proton exchange membranes with continuous and through-membrane proton-conducting channels. 2017 , 365, 92-97		14
920	Sulfonated Ti ₃ C ₂ T _x to construct proton transfer pathways in polymer electrolyte membrane for enhanced conduction. 2017 , 310, 100-111		19
919	Performance investigation on polymeric electrolyte membrane-based electrochemical air dehumidification system. 2017 , 208, 1174-1183		32

918	Facile synthesis of metal oxide nanofibers and construction of continuous proton-conducting pathways in SPEEK composite membranes. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 25388-25400	6.7	27
917	Surface modification of zirconia with acid groups. 2017 , 53, 1053-1057		7
916	Polyelectrolyte Nanocomposite Membranes with Imidazole-Functionalized Multi-Walled Carbon Nanotubes for Use in Fuel Cell Applications. 2017 , 56, 725-738		4
915	Upshot of natural graphite inclusion on the performance of porous conducting carbon fiber paper in a polymer electrolyte membrane fuel cell. 2017 , 4, 095603		5
914	First-principles investigation of adsorption and dissociation of molecular oxygen on pure Pd, Ni-doped Pd and NiPd alloy clusters. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 30310-30317	6.7	13
913	Engineering mesoporosity promoting high-performance polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 21294-21304	6.7	8
912	UV-crosslinked poly(arylene ether sulfone) [LAPONITE] nanocomposites for proton exchange membranes. 2017 , 7, 28358-28365		4
911	The 3D Nanoscale Evolution of Platinum-Niobium Oxide Fuel Cell Catalysts via Identical Location Electron Tomography. 2017 , 34, 1700051		7
910	WITHDRAWN: Nanocomposite membranes prepared from sulfonated polyether ether ketone (SPEEK) and nanocaly for enhancement of fuel cell properties. <i>International Journal of Hydrogen Energy</i> , 2017 ,	6.7	
909	A rotating rod electrode disk as an alternative to the rotating disk electrode for medium-temperature electrolytes, Part I: The effect of the absence of cylindrical insulation. 2017 , 245, 634-642		6
908	Genetic Algorithm-based Modeling of PEM Fuel Cells Suitable for Integration in DC Microgrids. 2017 , 45, 1152-1160		6
907	Asymmetric silica composite polymer electrolyte membrane for water management of fuel cells. 2017 , 542, 52-59		12
906	A conductive porous organic polymer with superprotonic conductivity of a Nafion-type electrolyte. 2017 , 5, 17492-17498		23
905	Enhanced electrocatalytic performances of Fe ₂ O ₃ pseudo-nanocubes for oxygen reduction reaction in alkaline solution with conductive coating. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 20711-20719	6.7	13
904	Reduction of methanol crossover by thin cracked metal barriers at the interface between membrane and electrode in direct methanol fuel cells. 2017 , 363, 153-160		12
903	Overview on conducting polymer in energy storage and energy conversion system. 2017 , 54, 640-653		41
902	Fuel cell performance and durability investigation of bimetallic radical scavengers in Aquivion perfluorosulfonic acid membranes. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 27987-27994	6.7	13
901	Water state and ionic conductivity of grafted ion exchange membranes based on polyethylene and sulfonated polystyrene. 2017 , 27, 380-381		11

900	Investigation of electrolyte leaching in the performance degradation of phosphoric acid-doped polybenzimidazole membrane-based high temperature fuel cells. 2017 , 363, 365-374		36
899	Polyoxometalates Assemblies and Their Electrochemical Applications. 2017 , 89-119		6
898	Proton Conduction in a Quaternary Organic Salt: Its Phase Behavior and Related Spectroscopic Studies. 2017 , 121, 18317-18325		4
897	A facile approach to fabricating organosilica layered material with sulfonic groups as an efficient filler for polymer electrolyte nanocomposites. 2017 , 41, 9489-9496		14
896	Membrane Electrolyte Assembly Health Estimation Method for Proton Exchange Membrane Fuel Cells. 2017 , 14,		3
895	Proton conducting electrospun sulfonated polyether ether ketone graphene oxide composite membranes. 2017 , 7, 53481-53491		29
894	Charge transport in graphene oxide. 2017 , 17, 38-53		20
893	A flexible phosphosilicate-based intermediate temperature composite electrolyte membrane with proton conductivity at temperatures of up to 250 °C. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 28829-28835	6.7	2
892	Preparation of a one-dimensional soluble polysilsesquioxane containing phosphonic acid side-chain groups and its thermal and proton-conduction properties. 2017 , 121, 228-233		10
891	High performance blend membranes based on densely sulfonated poly(fluorenyl ether sulfone) block copolymer and imidazolium-functionalized poly(ether sulfone). <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 20176-20186	6.7	19
890	A convenient miniature test platform for polyelectrolyte membrane fuel-cell research. 2017 , 797, 8-15		12
889	Nitrogen-Mediated Graphene Oxide Enables Highly Efficient Proton Transfer. 2017 , 7, 5213		3
888	High-Performance Semicrystalline Poly(ether ketone)-Based Proton Exchange Membrane. 2017 , 9, 24527-24537		3
887	Conductometric titration as a technique to determine variation in conductivity in perfluorosulfonic acid materials for fuel cells and electrolyzers. 2017 , 8, 123-134		1
886	Highly microporous nitrogen doped graphene-like carbon material as an efficient fuel cell catalyst. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 19903-19912	6.7	10
885	Enhanced conductivity of sodium versus lithium salts measured by impedance spectroscopy. Sodium cobaltacarboranes as electrolytes of choice. 2017 , 19, 15177-15186		25
884	The role of ion-exchange membrane in energy conversion. 2017 ,		14
883	Fabrication and characterization of a double-layer electrolyte membrane for BaCeO ₃ -based reversible solid oxide cells (RSOCs). 2017 , 308, 167-172		8

- 882 A unidomain membrane prepared from liquid-crystalline poly(pyridinium 4-styrene sulfonate) for anhydrous proton conduction. **2017**, 523, 355-360 11
- 881 Improved performance of a single chamber microbial fuel cell using nitrogen-doped polymer-metal-carbon nanocomposite-based air-cathode. *International Journal of Hydrogen Energy*, **2017**, 42, 3271-3280 6.7 45
- 880 Sulfonated poly(phenylene sulfide) grafted polysulfone proton exchange membrane with improved stability. *International Journal of Hydrogen Energy*, **2017**, 42, 2360-2369 6.7 24
- 879 Enhanced proton conductivity at low humidity of proton exchange membranes with triazole moieties in the side chains. **2017**, 523, 480-486 35
- 878 Enhancement in Performance of Sulfonated PES Cation-Exchange Membrane by Introducing Pristine and Sulfonated Graphene Oxide Nanosheets Synthesized through Hummers and Staudenmaier Methods. **2017**, 56, 543-555 10
- 877 Sulfonated poly(arylene ether sulfone) nanocomposite electrolyte membrane for fuel cell applications: A review. *International Journal of Hydrogen Energy*, **2017**, 42, 1063-1074 6.7 56
- 876 Colorimetric assay of heparin in plasma based on the inhibition of oxidase-like activity of citrate-capped platinum nanoparticles. **2017**, 92, 442-448 51
- 875 Proton conducting blend membranes: physical, morphological and electronic properties. **2017**, 74, 963-975 3
- 874 Sulfonated polyimide copolymers based on 4,4'-diaminostilbene-2,2'-disulfonic acid and 3,5,3',5'-tetramethylbenzidine with enhanced solubility. **2017**, 74, 895-909 5
- 873 Studies on microstructure of activated aluminum and its hydrogen generation properties in aluminum/water reaction. **2017**, 690, 321-329 58
- 872 Thermodynamic Evaluation and Carbon Footprint Analysis of the Application of Hydrogen-Based Energy-Storage Systems in Residential Buildings. **2017**, 5, 495-509 11
- 871 Coating of stainless steel and titanium bipolar plates for anticorrosion in PEMFC: A review. *International Journal of Hydrogen Energy*, **2017**, 42, 9135-9148 6.7 126
- 870 Performance evaluation of sodium alginate-chitosan polyion complex membranes for application in direct methanol fuel cells. **2017**, 134, 5
- 869 Proton-conducting biopolymer electrolytes based on pectin doped with NH₄X (X=Cl, Br). **2017**, 23, 2799-2808 27
- 868 Modification of Nafion membrane with biofunctional SiO₂ nanofiber for proton exchange membrane fuel cells. **2017**, 340, 201-209 99
- 867 Characterizing membrane electrode assemblies for high temperature polymer electrolyte membrane fuel cells using design of experiments. *International Journal of Hydrogen Energy*, **2017**, 42, 1189-1202 6.7 13
- 866 Enhancing Solid-State Conductivity through Acid or Base Doping of Protic Imidazolium and Imidazolium Triflate Salts. **2017**, 121, 27849-27859 10
- 865 Preparation and properties of ion exchange membranes for PEMFC with sulfonic and carboxylic acid groups based on polynorbornenes. *International Journal of Hydrogen Energy*, **2017**, 42, 29988-29994 6.7 17

864	Anion Conducting Ionomers for Fuel Cells and Electrolyzers. 2017 , 164, F1648-F1653		14
863	Steam reforming of dimethoxymethane, methanol and dimethyl ether on CuO/ZnO/Al ₂ O ₃ catalyst. 2017 , 58, 577-584		7
862	Proton Conductive Channel Optimization in Methanol Resistive Hybrid Hyperbranched Polyamide Proton Exchange Membrane. 2017 , 9,		5
861	Modelling and fuel flow control of PEMFC considering over-pressure case. 2017 ,		1
860	Self-Assembly in Fuel Cells. 2017 , 273-295		1
859	Enhancement of bioelectricity generation and algal productivity in microbial carbon-capture cell using low cost coconut shell as membrane separator. 2018 , 133, 205-213		41
858	Development of a Self-supporting Microporous Layer on a Metal Mesh for Carbon Backing-free Cathodes in Proton Exchange Membrane Fuel Cells. 2018 , 18, 57-62		6
857	Novel composite polymer electrolyte membrane using solid superacidic sulfated zirconia - Functionalized carbon nanotube modified chitosan. 2018 , 264, 251-259		40
856	A Structure and Durability Comparison of Membrane Electrode Assembly Fabrication Methods: Self-Assembled Versus Hot-Pressed. 2018 , 165, F3045-F3052		25
855	Optimizing the porosity configuration of porous copper fiber sintered felt for methanol steam reforming micro-reactor based on flow distribution. 2018 , 216, 243-261		22
854	Short Side Chain Aquivon Perfluorinated Sulfonated Proton-Conductive Membranes: Transport and Mechanical Properties. 2018 , 58, 130-136		18
853	Apparent contact angles of liquid water droplet breaking through a gas diffusion layer of polymer electrolyte membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 6318-6330	6.7	22
852	Design of Heterogeneities and Interfaces with Nanofibers in Fuel Cell Membranes. 2018 , 1-37		
851	Evaluation of Parameters Accelerating the Aging of PEMFCs Operating under Reformate Containing Carbon Monoxide. 2018 , 165, F3251-F3260		12
850	Polyoxometalate-Based Assemblies and Functional Materials. 2018 ,		6
849	Soluble Polystyrene-b-poly (ethylene/butylene)-b-polystyrene Based Ionomer for Anion Exchange Membrane Fuel Cells Operating at 70 °C. 2018 , 18, 137-147		20
848	Soldering a gas diffusion layer to a stainless steel bipolar plate using metallic tin. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 9006-9014	6.7	7
847	Novel Biohybrid Polysulfone Membranes with Physically Immobilized Gramicidin for Ion-Exchange Applications. 2018 , 57, 6483-6492		2

846	Decoding the spectroscopic features and time scales of aqueous proton defects. 2018 , 148, 222833		23
845	High performance proton-conducting composite based on vanadium-substituted Dawson-type heteropoly acid for proton exchange membranes. 2018 , 162, 1-6		25
844	Polycarboxylate-Templated Coordination Polymers: Role of Templates for Superprotonic Conductivities of up to 10 S cm. 2018 , 57, 6662-6666		104
843	Polycarboxylate-Templated Coordination Polymers: Role of Templates for Superprotonic Conductivities of up to 10 ⁴ S cm ⁻¹ . 2018 , 130, 6772-6776		17
842	Ionic silsesquioxanes: Preparation, structure control, characterization, and applications. 2018 , 144, 205-224		26
841	Porous PVDF/PANI ion-exchange membrane (IEM) modified by polyvinylpyrrolidone (PVP) and lithium chloride in the application of membrane capacitive deionisation (MCDI). 2018 , 77, 2311-2319		2
840	Revisiting the radical copolymerization of vinylidene fluoride with perfluoro-3,6-dioxo-4-methyl-7-octene sulfonyl fluoride for proton conducting membranes. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 16986-16997	6.7	6
839	Surface-patterning of polymeric membranes: fabrication and performance. 2018 , 20, 1-12		50
838	Infiltration of 40SiO ₂ /40P ₂ O ₅ /0ZrO ₂ sol-gel in sSEBS membranes for PEMFCs application. 2018 , 551, 136-144		6
837	Comparative analysis of a hybrid propulsion using LNG-LH ₂ complying with regulations on emissions. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 3809-3821	6.7	14
836	Tailored SPVdF-co-HFP/SGO nanocomposite proton exchange membranes for direct methanol fuel cells. 2018 , 140, 22-32		44
835	Cross-linked poly(aryl ether sulfone) membranes for direct methanol fuel cell applications. 2018 , 56, 558-575		5
834	The Effect of Voltage Charging on the Transport Properties of Gold Nanotube Membranes. 2018 , 14, e1703290		6
833	Catalytic materials for biofuel conversion. 2018 , 63, 241-256		8
832	Graphene oxide-anchored reactive sulfonated copolymer via simple one pot condensation polymerization: proton-conducting solid electrolytes. 2018 , 25, 1		4
831	The influence of anion chemistry on the ionic conductivity and molecular dynamics in protic organic ionic plastic crystals. 2018 , 20, 4579-4586		7
830	Self-crosslinked organic-inorganic nanocomposite membranes with good methanol barrier for direct methanol fuel cell applications. 2018 , 315, 71-76		16
829	Nanostructured composite membrane with cross-linked sulfonated poly(arylene ether ketone)/silica for high-performance polymer electrolyte membrane fuel cells under low relative humidity. 2018 , 549, 567-574		11

828	Proton exchange membrane based on chitosan and solvent-free carbon nanotube fluids for fuel cells applications. 2018 , 186, 200-207		51
827	Structural Characteristics of Hydrated Protons in Ion Conductive Channels: Synergistic Effect of the Sulfonate Group and Fluorine Studied by Molecular Dynamics Simulation. 2018 , 122, 1982-1989		9
826	Fuel Exhaling Fuel Cell. 2018 , 9, 388-392		19
825	Constructing Proton-conducting Channels within Sulfonated(Poly Arylene Ether Ketone) Using Sulfonated Graphene Oxide: A Nano-Hybrid Membrane for Proton Exchange Membrane Fuel Cells. 2018 , 39, 715-721		6
824	Study on charge transportation in the layer-structured oxide composite of SOFCs. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 12773-12781	6.7	13
823	Hydrogen production from ethanol solution by pulsed discharge with TiO ₂ catalysts. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 9503-9513	6.7	15
822	Scalable Membraneless Direct Liquid Fuel Cells Based on a Catalyst-Selective Strategy. 2018 , 1, 13-19		10
821	Comparative risk assessment with focus on hydrogen and selected fuel cells: Application to Europe. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 9470-9481	6.7	12
820	Stability of the superprotonic conduction of (1-x)CsH ₂ PO ₄ /xSiO ₂ (0 ≤ x ≤ 0.3) composites under dry and humid environments. 2018 , 15, 11-17		12
819	High durability sulfonated poly (ether ether ' ketone)-ceria nanocomposite membranes for proton exchange membrane fuel cell applications. 2018 , 556, 12-22		74
818	Effect of the Sulfated Zirconia Nanostructure Characteristics on Physicochemical and Electrochemical Properties of SPEEK Nanocomposite Membranes for PEM Fuel Cell Applications. 2018 , 303, 1700570		16
817	Pd and polyaniline nanocomposite on carbon fiber paper as an efficient direct formic acid fuel cell anode. 2018 , 5, 035518		
816	A multiscale-pore ion exchange membrane for better energy efficiency. 2018 , 6, 7714-7723		14
815	Investigation the proton transport in highly hydrated Nafion membrane doping with SiO ₂ nanoparticles by molecular dynamics simulation. 2018 , 660, 802-807		4
814	Crystallite formation effect on the physicochemical properties of SPEEK membranes for fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 5175-5183	6.7	8
813	Astonishing synergetic effect of proton conducting between phosphonic acid groups and triazolyl groups tethered simultaneously on poly(ether sulfone) backbone. 2018 , 320, 100-112		5
812	Chemically stable thioether cross-linked membranes derived from sulfonated poly(arylene ether ketone)s for direct methanol fuel cells. 2018 , 30, 129-138		2
811	Sulfonated aromatic copoly(etheramide) membranes II: Influence of chain length and sulfonic groups concentration on membrane ionic conductivity and mechanical properties. 2018 , 30, 437-445		4

810	CORROSION PROTECTION OF ELECTROLESS PLATING Ni-P INCLUDING TIN NANOPARTICLES FOR BIPOLAR PLATES OF PEMFCs. 2018 , 25, 1850052	2
809	Achieving Amphibious Superprotonic Conductivity in a Cu Metal-Organic Framework by Strategic Pyrazinium Salt Impregnation. 2018 , 24, 872-880	21
808	Investigation the Effect of TiO ₂ Nanoparticles on Proton Exchange Membrane of sPEEK Used as a Fuel Cell Electrolyte Based on Phase Diagram. 2018 , 28, 63-72	5
807	Application and modification of polysulfone membranes. 2018 , 34, 657-693	29
806	Salt-leaching technique for the synthesis of porous poly(2,5-benzimidazole) (ABPBI) membranes for fuel cell application. 2018 , 135, 45773	9
805	Carbon Nanotube/Polyaniline-Based Nanocomposite Anode for Microbial Fuel Cells. 2018 , 201-213	2
804	Algal growth in photosynthetic algal microbial fuel cell and its subsequent utilization for biofuels. 2018 , 82, 402-414	73
803	Hydrophilic domain structure in polymer exchange membranes: Simulations of NMR spin diffusion experiments to address ability for model discrimination. 2018 , 56, 62-78	10
802	Chitosan-based composite membranes containing chitosan-coated carbon nanotubes for polymer electrolyte membranes. 2018 , 29, 612-622	31
801	A Paper-Based Microfluidic Fuel Cell with Hydrogen Peroxide as Fuel and Oxidant. 2018 , 6, 140-143	40
800	Interfacial Water Drives Improved Proton Transport in Siliceous Nanocomposite Nafion Thin Films. 2018 , 19, 538-546	2
799	The insights into chlorine doping effect on performance of ceria supported nickel catalysts for selective CO methanation. 2018 , 221, 413-421	31
798	Understanding methods of preparation and characterization of pore-filling polymer composites for proton exchange membranes: a beginner's guide. 2018 , 34, 455-479	16
797	PEM Fuel Cell Modeling Using Genetic Algorithm: A Novel Approach. 2018 , 541-550	
796	A DNA-Threaded ZIF-8 Membrane with High Proton Conductivity and Low Methanol Permeability. 2018 , 30, 1705155	101
795	Novel imidazole-grafted hybrid anion exchange membranes based on poly(2,6-dimethyl-1,4-phenylene oxide) for fuel cell applications. 2018 , 135, 46034	5
794	Toward High-Performance Pt-Based Nanocatalysts for Oxygen Reduction Reaction through Organic-Inorganic Hybrid Concepts. 2018 , 30, 2-24	52
793	Aliphatic SPI charge-transfer complex hybrid films for high temperature polymer electrolyte membrane fuel cells. 2018 , 135, 46087	6

792	Free volume enhanced proton exchange membranes from sulfonated triptycene poly(ether ketone). 2018 , 549, 236-243	28
791	Modern Applications of Green Chemistry: Renewable Energy. 2018 , 771-860	2
790	Synthesis of plasma polymerized PEM with pillar surface structure and its fuel cell performance. 2018 , 100, 62-71	1
789	A synthesis study of phosphonated PSEBS for high temperature proton exchange membrane fuel cells. 2018 , 135, 45954	14
788	One-pot synthesis of interconnected Pt95Co5 nanowires with enhanced electrocatalytic performance for methanol oxidation reaction. 2018 , 11, 2562-2572	43
787	Proton Exchange Membrane Fuel Cells: Review. 2018 , 9-29	3
786	Improved Physicochemical Stability and High Ion Transportation of Poly(Arylene Ether Sulfone) Blocks Containing a Fluorinated Hydrophobic Part for Anion Exchange Membrane Applications. 2018 , 10,	20
785	Crosslinked PVA/SSA proton exchange membranes: correlation between physicochemical properties and free volume determined by positron annihilation spectroscopy. 2018 , 20, 28287-28299	46
784	Enhanced hydrogen storage properties of 1.1MgH-2LiNH-0.1LiBH system with LaNi-based alloy hydrides addition.. 2018 , 8, 40647-40654	3
783	Ion Transport in Hybrid Membranes Based on Perfluorosulfonic Polymers. 2018 , 58, 1129-1132	1
782	Investigation of the effects of electric fields on the nanostructure of Nafion and its proton conductivity. 2018 , 6, 20836-20843	15
781	Rhodium metal/rhodium oxide (Rh/Rh ₂ O ₃) nanostructures with Pt-like or better activity towards hydrogen evolution and oxidation reactions (HER, HOR) in acid and base: correlating its HOR/HER activity with hydrogen binding energy and oxophilicity of the catalyst. 2018 , 6, 23531-23541	76
780	Anhydrous proton conduction in porous organic networks. 2018 , 6, 21542-21549	4
779	Azocontaining polymers, in situ immobilized on the silica gel surface. 2018 , 673, 39-47	6
778	Quaternized poly (2,6 dimethyl-4 phenylene oxide)/polysulfone blended anion exchange membrane for alkaline fuel cells application. 2018 , 5, 10496-10504	2
777	Revealing Hexadecyltrimethylammonium Chloride (HDTA) Intercalated Bentonite in Sulfonated Poly(ether ether ketone) as Nanocomposite Membrane Electrolyte for Direct Methanol Fuel Cells. 2018 , 165, F1358-F1368	1
776	Proton Conductions. 2018 , 1-34	
775	Preparation and characterization of proton exchange membrane based on polyphosphoric acid modified by PVDF-HFP. 2018 , 135, 46737	

774	. 2018,	3
773	Hydrogen generation by the hydrolysis of mechanochemically activated aluminum-tin-indium composites in pure water. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21398-21413	6.7 34
772	A passivity-based control applied to a double cascade DC/DC converter using a fuel cell. 2018,	0
771	Improving the proton conductivity of proton exchange membranes via incorporation of HPW-functionalized mesoporous silica nanospheres into SPEEK. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21940-21948	6.7 25
770	Development and experimental investigation of an oil-free twin-screw air compressor for fuel cell systems. 2018, 145, 755-762	19
769	Performance evaluation of a multi-stage plate-type membrane humidifier for proton exchange membrane fuel cell. 2018, 176, 123-130	15
768	Synthesis and proton conductivity of two novel molybdate polymers. 2018, 42, 16516-16522	5
767	Reverse relationships of water uptake and alkaline durability with hydrophilicity of imidazolium-based grafted anion-exchange membranes. 2018, 14, 9118-9131	10
766	Mechanism and transfer behavior of ions in Nafion membranes under alkaline media. 2018, 566, 8-14	21
765	Effect of different ecosystems on generated power in sediment microbial fuel cell. 2018, 42, 4891-4897	12
764	Fast and accurate parameter extraction for different types of fuel cells with decomposition and nature-inspired optimization method. 2018, 174, 913-921	24
763	PtNi alloy hyperbranched nanostructures with enhanced catalytic performance towards oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18436-18443	6.7 11
762	Study of mechanical degradation of sulfonated poly (ether ether ketone) membrane using ex-situ hydrothermal cycles for polymer electrolyte fuel cell application. 2018, 401, 73-84	9
761	Phosphonate ionic liquid immobilised SBA-15/SPEEK composite membranes for high temperature proton exchange membrane fuel cells. 2018, 1, 196-204	6
760	Clean energy generation using groundnut oil mill effluent with microbial fuel-cell. 2018, 37, 1076	
759	Thin pore-filling membrane with highly packed-acid structure for high temperature and low humidity operating polymer electrolyte fuel cells. 2018, 394, 67-73	17
758	Introducing Large Counteranions Enhances the Elastic Modulus of Imidazolium-Based Polymerized Ionic Liquids. 2018, 51, 4129-4142	13
757	Antioxidant proton conductive toughening agent for the hydrocarbon based proton exchange polymer membrane for enhanced cell performance and durability in fuel cell. 2018, 393, 11-18	14

756	Modelling and validation of Proton exchange membrane fuel cell (PEMFC). 2018 , 290, 012026	2
755	A graphene oxide polymer brush based cross-linked nanocomposite proton exchange membrane for direct methanol fuel cells.. 2018 , 8, 15740-15753	24
754	Synthesis of Nanomaterials for Fuel Cell Applications. 2018 , 205-226	3
753	Effect of phosphotungstic acid blending on properties of sulfonated poly(ether ether ketone)poly(ethylene glycol) crosslinked membranes. 2018 , 135, 46667	4
752	Two-Dimensional Metal Nanomaterials: Synthesis, Properties, and Applications. 2018 , 118, 6409-6455	467
751	Analysis of Parametric Effects on PEMFC Performance and Power Management Schemes. 2018 , 1529-1535	
750	Chitosan-ABS membrane for DMFC: Effect of sulfonation time and mass ratio of chitosan and ABS. 2018 ,	
749	The role of metal-oxo intermediate to oxygen reduction reaction catalysis: A theoretical investigation using nitrogen-substituted carbon nanotube models. 2018 , 677, 301-305	1
748	Blocky Ionomers via Sulfonation of Poly(ether ether ketone) in the Semicrystalline Gel State. 2018 , 51, 6226-6237	17
747	3.12 Microbial Energy Production. 2018 , 521-537	
746	Nanotechnology Applications for Environmental Industry. 2018 , 894-907	19
745	WITHDRAWN: Thermal management optimization of an air-cooled hydrogen fuel cell system in an extreme environmental condition. <i>International Journal of Hydrogen Energy</i> , 2018 ,	6.7
744	Membrane electrode assembly based on buckypaper with gradient distribution of platinum, proton conductor and electrode porosity. 2018 , 769, 471-477	3
743	Synthesis and stability of strongly acidic benzamide derivatives. 2018 , 14, 523-530	2
742	Extra Water- and Acid-Stable MOF-801 with High Proton Conductivity and Its Composite Membrane for Proton-Exchange Membrane. 2018 , 10, 28656-28663	94
741	Novel proton-conductive nanochannel membranes with modified SiO ₂ nanospheres for direct methanol fuel cells. 2018 , 22, 3475-3484	7
740	Polymer nanocomposite materials in energy storage: Properties and applications. 2018 , 239-282	5
739	Composition effect of oxygen reduction reaction on PtSn nanorods: An experimental and computational study. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 14427-14438	6.7 17

- 738 Role of cationic groups on structural and dynamical correlations in hydrated quaternary ammonium-functionalized poly(p-phenylene oxide)-based anion exchange membranes. **2018**, 20, 19350-19362 ¹⁷
- 737 Impedance Analysis of Polyaniline in Comparison with Some Conventional Solid Electrolytes. **2018**, 122, 7764-7774 3
- 736 Experimental and modeling study of blended membranes for direct methanol fuel cells. **2018**, 564, 308-316 7
- 735 Investigation of physicochemical and electrochemical properties of recast Nafion nanocomposite membranes using different loading of zirconia nanoparticles for proton exchange membrane fuel cell applications. **2018**, 1, 146-154 16
- 734 Cross-linked sulfonated poly(ether ether ketone)-poly ethylene glycol/silica organic/inorganic nanocomposite membrane for fuel cell application. **2018**, 398, 137-148 23
- 733 Hybrid electrolyte SiW₉MoV₂/rGO/SPEEK for solid supercapacitors with enhanced conductive performance. **2018**, 215, 163-167 11
- 732 Fuel Cells: History (Short Remind), Principles of Operation, Main Features, and Applications. **2018**, 123-150 3
- 731 Activity and Stability of Dispersed Multi Metallic Pt-based Catalysts for CO Tolerance in Proton Exchange Membrane Fuel Cell Anodes. **2018**, 90, 697-718 6
- 730 Improved conductivity and anti(bio)fouling of cation exchange membranes by AgNPs-GO nanocomposites. **2018**, 565, 463-479 11
- 729 Effect of ceria loading on performance and durability of sulfonated poly (ether ether ketone) nanocomposite membranes for proton exchange membrane fuel cell applications. **2018**, 565, 342-357 43
- 728 Fuel Cell Catalyst Layers and Membrane-Electrode Assemblies Containing Multiblock Poly(arylene ether sulfones) Bearing Perfluorosulfonic Acid Side Chains. **2018**, 165, F891-F897 7
- 727 Switching on the proton transport pathway of a lanthanide metal-organic framework by one-pot loading of tetraethylene glycol for high proton conduction. **2018**, 47, 9096-9102 8
- 726 Carbon-Based Nanocomposite Proton Exchange Membranes for Fuel Cells. **2018**, 437-461 4
- 725 Control of PEM Fuel Cell Systems Using Interval Type-2 Fuzzy PID Approach. **2018**, 18, 449-456 16
- 724 Platinum Nanostructure/Nitrogen-Doped Carbon Hybrid: Enhancing its Base Media HER/HOR Activity through Bi-functionality of the Catalyst. **2018**, 11, 2388-2401 41
- 723 Polymer Electrolyte Membranes for Microbial Fuel Cells: Part A. Nafion-Based Membranes. **2018**, 47-72 3
- 722 Biochemistry and Electrochemistry at the Electrodes of Microbial Fuel Cells. **2018**, 327-345 2
- 721 Acid resistant PVDF based copolymer alkaline anion exchange membrane for acid recovery and electrodialytic water desalination. **2018**, 563, 561-570 21

720	Observer Based Fuel Delivery Control for PEM Fuel Cells with a Segmented Anode Model. 2019 , 21, 1781-1795		
719	Preparation and performance of nanoparticle-reinforced chitosan proton-exchange membranes for fuel-cell applications. 2019 , 136, 46904		11
718	Fabrication of Sulfonated Poly (ether ether ketone)/Sulfonated Fully Aromatic Polyamide Composite Membranes for Direct Methanol Fuel Cells (DMFCs). 2019 , 7, 71-79		10
717	Polymer Fuel Cell Based on Polybenzimidazole Membrane: A Review. 2019 , 58, 465-497		11
716	Extrusion of Nafion and Aquivion membranes: environmentally friendly procedure and good conductivities. 2019 , 76, 1151-1166		2
715	Synthesis and characterization of pectin-based biopolymer electrolyte for electrochemical applications. 2019 , 25, 203-214		22
714	Pore size tuning of Nafion membranes by UV irradiation for enhanced proton conductivity for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 23762-23774	6.7	18
713	Characterization and evaluation of Nafion HP JP as proton exchange membrane: transport properties, nanostructure, morphology, and cell performance. 2019 , 23, 2639-2656		8
712	Fluorene-containing poly(arylene ether sulfone nitrile)s multiblock copolymers as anion exchange membranes. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 24256-24266	6.7	11
711	Proton conducting composite membranes based on sulfonated polysulfone and polysulfone-g(phosphonated polystyrene) via controlled atom-transfer radical polymerization for fuel cell applications. 2019 , 338, 103-112		14
710	Bipyridine-based polybenzimidazole membranes with outstanding hydrogen fuel cell performance at high temperature and non-humidifying conditions. 2019 , 591, 117354		25
709	The effects of bismuth and tin on the mechanochemical processing of aluminum-based composites for hydrogen generation purposes. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 21896-21912	6.7	24
708	Polybenzimidazole-based nanocomposite: current status and emerging developments. 2019 , 58, 1979-1992		1
707	Structure-controlled synthesis of one-dimensional PdCu nanoscatalysts via a seed-mediated approach for oxygen reduction reaction. 2019 , 493, 139-145		6
706	Adaptive current distribution method for parallel-connected PEMFC generation system considering performance consistency. 2019 , 196, 866-877		24
705	Potential Bifunctional Filler (CeO ₂ @CNTs) for Nafion Matrix toward Extended Electrochemical Power Density and Durability in Proton-Exchange Membrane Fuel Cells Operating at Reduced Relative Humidity. 2019 , 7, 12847-12857		56
704	Nanoarchitected Metal Phosphates and Phosphonates: A New Material Horizon toward Emerging Applications. 2019 , 31, 5343-5362		47
703	Non-Fluorinated Polymer Composite Proton Exchange Membranes for Fuel Cell Applications - A Review. 2019 , 20, 2016-2053		31

702	Mechanical failure and mitigation strategies for the membrane in a proton exchange membrane fuel cell. 2019 , 113, 109289		48
701	Proton Conductivity through Polybenzimidazole Composite Membranes Containing Silica Nanofiber Mats. 2019 , 11,		16
700	Effect of Pin Diameter Degressive Gradient on Heat Transfer in a Microreactor with Non-Uniform Pin-Fin Array under Low Reynolds Number Conditions. 2019 , 12, 2702		1
699	One-step phosphorylation of graphene oxide for the fabrication of nanocomposite membranes with enhanced proton conductivity for fuel cell applications. 2019 , 30, 13056-13066		9
698	Synthesis and characterization of organic agar-based membranes for microbial fuel cells. 2019 , 435, 226772		11
697	Performance improvement of self-humidifying PEM fuel cells using water injection at various start-up conditions. 2019 , 183, 514-524		13
696	Exclusively Proton Conductive Membranes Based on Reduced Graphene Oxide Polymer Composites. 2019 , 13, 13136-13143		10
695	Property improvement of nanocellulose-reinforced proton exchange nanocomposite membrane coated with tetraethyl orthosilicate. 2019 , 57, 2190-2200		1
694	Straight-Parallel Electrodes and Variable Gap for Hydrogen and Oxygen Evolution Reactions. 2019 , 2019, 1-11		2
693	Hydrogen oxidation reaction on modified platinum model electrodes in alkaline media. 2019 , 327, 135016		11
692	Tailoring Different Molecular Weight Phenylene-Polybenzimidazole Membranes with Remarkable Oxidative Stability and Conductive Properties for High-Temperature Polymer Electrolyte Fuel Cells. 2019 , 11, 46269-46277		14
691	Influence of doping level in Yttria-Stabilised-Zirconia (YSZ) based-fillers as degradation inhibitors for proton exchange membranes fuel cells (PEMFCs) in drastic conditions. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 31445-31457	6.7	8
690	Effect of Ammonium Cations on the Diffusivity and Structure of Hydroxide Ions in Low Hydration Media. 2019 , 123, 27355-27362		12
689	Feasibility of preparing additive manufactured porous stainless steel felts with mathematical micro pore structure as novel catalyst support for hydrogen production via methanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 24782-24791	6.7	11
688	The effect of SnO ₂ (110) supports on the geometrical and electronic properties of platinum nanoparticles. 2019 , 1, 1		9
687	Assessing the ageing process of cation exchange membranes in bioelectrochemical systems. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 25287-25296	6.7	5
686	Performance and durability studies of perfluorosulfonic acid ionomers as binders in PEMFC catalyst layers using Electrochemical Impedance Spectroscopy. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 32219-32230	6.7	11
685	CHS-WSiA doped hexafluoropropylidene-containing polybenzimidazole composite membranes for medium temperature dry fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 32201-32209	6.7	6

684	Investigating the influence of the side-chain pendants of perfluorosulfonic acid membranes in a PEMFC by molecular dynamics simulations. 2019 , 21, 100625	14
683	The optimization performance of cross-linked sodium alginate polymer electrolyte bio-membranes in passive direct methanol/ethanol fuel cells. 2019 , 43, 8275	11
682	Double Stage Double Output DCDC Converters for High Voltage Loads in Fuel Cell Vehicles. 2019 , 12, 3681	8
681	Scaling limit of the local time of the reflected (1,2)-random walk. 2019 , 155, 108578	
680	Analysis of crosslinked polyvinyl alcohol membranes with silica fillers in polymer electrolyte membrane fuel cells. 2019 , 6, 105526	4
679	Enhanced proton conductivity of Nafion-azolebisphosphonate membranes for PEM fuel cells. 2019 , 43, 15249-15257	5
678	Steam Reforming of Methane and Its Mixtures with Propane in a Membrane Reactor with Industrial Nickel Catalyst and PalladiumRuthenium Foil. 2019 , 59, 394-404	8
677	Preparation and Characterization of PVA/PDDA/Nano-Zirconia Composite Anion Exchange Membranes for Fuel Cells. 2019 , 11,	10
676	The proton conductivity and mechanical properties of Nafion' / ZrP nanocomposite membrane. 2019 , 5, e02240	35
675	Nanocomposite Membranes with High Fuel Cell Performance Based on Sulfonated Poly (1,4-phenylene ether ether sulfone) and Ytterbium/Yttrium Doped-Perovskite Nanoparticles. 2019 , 166, F976-F989	13
674	Pyrochlore Zirconium Gadolinium Oxide Nanorods Composite Membrane for Suppressing the Formation of Free Radical in PEM Fuel Cell Operating Under Dry Condition. 2019 , 7, 16889-16899	10
673	Battery Charge Management for Hybrid PV/Wind/Fuel Cell with Storage Battery. 2019 , 162, 107-116	22
672	Compact Steam-Methane Reforming for the Production of Hydrogen in Continuous Flow Microreactor Systems. 2019 , 4, 15600-15614	8
671	Advanced Robustness Control of DCDC Converter for Proton Exchange Membrane Fuel Cell Applications. 2019 , 55, 6389-6400	12
670	Electrocatalysts for electrooxidation of direct alcohol fuel cell: chemistry and applications. 2019 , 14, 100182	46
669	ZrP Nanoreinforcement Overcomes the Trade-Off between Phosphoric Acid Dopability and Thermomechanical Properties: Nanocomposite HTPEM with Stable Fuel Cell Performance. 2019 , 11, 37013-37025	12
668	Analysis of PEM hydrogen fuel cell and solar PV cell hybrid model. 2019 , 17, 246-253	11
667	Preparing a novel gradient porous metal fiber sintered felt with better manufacturability for hydrogen production via methanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 23983-23995	6.7 6

666	A comparative study of power allocation strategies used in fuel cell and ultracapacitor hybrid systems. 2019 , 189, 116142		39
665	Molecular dynamics simulations of microstructure and transport properties of sulfonated poly-p-phenoxybenzoyl-1,4-phenylene membrane and their comparisons to sulfonated poly(ether ether ketone) membrane. 2019 , 21, 100642		
664	Origin of high hydrogen evolution activity on InSe nanoribbons: A first-principles study. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 24174-24183	6.7	5
663	Post-assembly modification of polymeric composite membranes using spin drying for fuel cell applications. 2019 , 7, 7380-7388		9
662	Distributed Energy Resources and Supportive Methodologies for their Optimal Planning under Modern Distribution Network: a Review. 2019 , 4, 1		9
661	Algal spent biomass: A pool of applications. 2019 , 397-433		11
660	Molecular dynamics study of oxygen transport resistance through ionomer thin film on Pt surface. 2019 , 414, 263-271		27
659	Optimization of ionomer-free ultra-low loading Pt catalyst for anode/cathode of PEMFC via magnetron sputtering. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 19344-19356	6.7	32
658	Bisphenol A based carbon-carbon coupled poly(arylene)s from dibenzoyl-dichlorobenzene via Ni(II) catalyzed and condensation polymerization for PEMFC. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 21090-21100	6.7	2
657	Towards a sustainable technology for H ₂ production: Direct lignin electrolysis in a continuous-flow Polymer Electrolyte Membrane reactor. 2019 , 100, 43-47		36
656	Direct hydrocarbon fuel cells: A promising technology for improving energy efficiency. 2019 , 172, 207-219		56
655	An electrospun hygroscopic and electron-conductive core-shell silica@carbon nanofiber for microporous layer in proton-exchange membrane fuel cell. 2019 , 23, 971-984		12
654	Multiblock copolymers of sulfonated PSU/PPSU Poly(ether sulfone)s as solid electrolytes for proton exchange membrane fuel cells. 2019 , 302, 428-440		12
653	Biofouling of membranes in microbial electrochemical technologies: Causes, characterization methods and mitigation strategies. 2019 , 279, 327-338		56
652	Protonic Conduction of Partially-Substituted CsH ₂ PO ₄ and the Applicability in Electrochemical Devices. 2019 , 9,		6
651	Polymer Electrolyte Membranes Based on Nafion and a Superacidic Inorganic Additive for Fuel Cell Applications. 2019 , 11,		19
650	Sulfonated poly (ether sulfone) composite membranes customized with polydopamine coated molybdenum disulfide nanosheets for renewable energy devices. 2019 , 175, 255-264		9
649	Modelling and evaluation of PEM hydrogen technologies for frequency ancillary services in future multi-energy sustainable power systems. 2019 , 5, e01396		27

648	Graph dynamical networks for unsupervised learning of atomic scale dynamics in materials. 2019 , 10, 2667	43
647	Effect of hygral swelling and shrinkage on mechanical durability of fuel cell membranes. 2019 , 427, 207-214	13
646	Functionalized coordinating polymers. 2019 , 235-253	0
645	Multi-block versus random quaternary ammonium Poly(arylene ether sulfone) membrane dependent water and alcohol mass uptake, directionally-dependent swelling and ion conductivity, and alcohol transport. 2019 , 588, 117191	3
644	Polybenzimidazole as proton conducting filler in polydimethylsiloxane: Enhanced oxidative stability and membrane properties. 2019 , 136, 48151	3
643	Physicochemical properties of Aquivion/fluorine grafted sepiolite electrolyte membranes for use in PEMFC. 2019 , 319, 933-946	8
642	Electrochemical impedance spectroscopy analysis of V characteristics and a fast prediction model for PEM-based electrolytic air dehumidification. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 19533-19546	6, 7, 13
641	Homogenized Bimetallic Catalysts from Metal-Organic Framework Alloys. 2019 , 31, 4205-4212	18
640	Introduction to Electrochemical Energy Storage. 2019 , 1-28	
639	One-Step Interfacial Functionalization and Synthesis of Mo-Modified TiO ₂ Nanocrystalline as Composite PtRu Anode Catalyst Support for DMFCs. 2019 , 4, 5055-5063	1
638	Blend membranes of sulfonated poly (ether ether ketone) and thermoplastic poly (urethane) for fuel cells. 2019 , 26, 1	7
637	An efficient auxiliary power generation system for exploiting hydrogen boil-off gas (BOG) cold exergy based on PEM fuel cell and two-stage ORC: Thermodynamic and exergoeconomic viewpoints. 2019 , 195, 502-518	24
636	Comb-shaped anion exchange membrane with densely grafted short chains or loosely grafted long chains?. 2019 , 585, 150-156	26
635	The optimal operation states and parametric choice strategies of a DCFC-AMTEC coupling system with high efficiency. 2019 , 195, 360-366	13
634	The construction of integrated Si-based micro proton exchange membrane fuel cells with improved performances. 2019 , 61, 604-610	6
633	Nafion phosphonic acid composite membranes for proton exchange membranes fuel cells. 2019 , 487, 889-897	26
632	Stochastic Microstructure Reconstruction of a Binder/Carbon Fiber/Expanded Graphite Carbon Fiber Paper for PEMFCs Applications: Mass Transport and Conductivity Properties. 2019 , 166, F3287-F3299	12
631	Novel copper foam with ordered hole arrays as catalyst support for methanol steam reforming microreactor. 2019 , 246, 24-37	34

630	Electrodeposition of graphene nano-thick coating for highly enhanced performance of titanium bipolar plates in fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 16909-16917	6.7	21
629	The Future Perspectives of Dark Fermentation: Moving from Only Biohydrogen to Biochemicals. 2019 , 375-412		5
628	Dual sulfonated poly(arylene ether ketone) membrane grafted with 15-crown-5-ether for enhanced proton conductivity and anti-oxidation stability. 2019 , 4, 901-911		8
627	A flexible paper-based hydrogen fuel cell for small power applications. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29680-29691	6.7	28
626	Toward optimization of a robust low-cost sulfonated-polyethersulfone containing layered double hydroxide for PEM fuel cells. 2019 , 136, 47884		10
625	Performance prediction and evaluation of the scroll-type hydrogen pump for FCVs based on CFDMaguchi method. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 15333-15343	6.7	19
624	The rise of bio-inspired energy devices. 2019 , 23, 390-408		8
623	Efforts to Improve PBI/Acid Membrane System for High Temperature Polymer Electrolyte Membrane Fuel Cell (HT-PEMFC). 2019 , 90, 01002		3
622	Imidazolium-Based Anion Exchange Membranes for Alkaline Anion Fuel Cells: Interplay between Morphology and Anion Transport Behavior. 2019 , 166, F472-F478		7
621	Crosslinked terpolymers of vinylidene fluoride, perfluoro-3,6-dioxo-4-methyl-7-octene sulfonyl fluoride, and cure site monomers for membranes in PEMFC applications. 2019 , 10, 2176-2189		2
620	Multilayered Membrane Electrolytes Based on Aramid Nanofibers for High-Temperature Proton Exchange Membrane Fuel Cells. 2019 , 2, 2160-2168		29
619	Synthesis and Catalytic Properties of Modified Electrodes by Pulsed Electrodeposition of Pt/PANI Nanocomposite. 2019 , 12,		11
618	Amelioration of PEMFC performance at high temperature by incorporation of nanofiller (sepiolite/layered double hydroxide) in Nafion membrane. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 10666-10676	6.7	12
617	Long-branched and densely functionalized anion exchange membranes for fuel cells. 2019 , 581, 82-92		41
616	In-situ sulfonation of targeted silica-filled Nafion for high-temperature PEM fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29711-29716	6.7	22
615	Aqueous proton-selective conduction across two-dimensional graphyne. 2019 , 10, 1165		36
614	A Highly Durable Quercetin-Based Proton Exchange Membrane for Fuel Cells. 2019 , 166, F3052-F3057		9
613	Highly sulfonated polymer-grafted graphene oxide composite membranes for proton exchange membrane fuel cells. 2019 , 74, 223-232		43

612	Improving the conductivity and permselectivity of ion-exchange membranes by introduction of inorganic oxide nanoparticles: impact of acid-base properties. 2019 , 297, 741-748		20
611	Radiochemical stability and lifetime of HDPE-based flexible composite filled with Ce-doped PbZrTiO ₃ . 2019 , 138, 2419-2428		4
610	Chitosan and Aluminum Oxide as a Potential Replacement for Industry-Standard Materials in Proton Exchange Membrane Fuel Cell (PEMFC) Fabrication. 2019 , 219, 012027		1
609	Sulfonation of blocky brominated PEEK to prepare hydrophilic-hydrophobic blocky copolymers for efficient proton conduction. 2019 , 336, 47-56		5
608	Development of energy management system based on a rule-based power distribution strategy for hybrid power sources. 2019 , 175, 1055-1066		71
607	Metal-Schiff Base complex catalyst in KBH ₄ hydrolysis reaction for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 18848-18857	6.7	13
606	Hydrogen-based self-sustaining integrated renewable electricity network (HySIREN) using a supply-demand forecasting model and deep-learning algorithms. 2019 , 185, 353-367		34
605	Metal-Organic Frameworks for Hydrogen Energy Applications: Advances and Challenges. 2019 , 20, 1177-1215		32
604	Nanomaterial-incorporated sulfonated poly(ether ether ketone) (SPEEK) based proton-conducting membranes: properties and applications. 2019 , 227-252		0
603	Current Scenario of Nanocomposite Materials for Fuel Cell Applications. 2019 , 557-592		1
602	Quaternized chitosan-based anion exchange membrane for alkaline direct methanol fuel cells. 2019 , 73, 254-259		21
601	Investigation of the effect of cathode stoichiometry of proton exchange membrane fuel cell using localized electrochemical impedance spectroscopy based on print circuit board. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7564-7573	6.7	22
600	The determination of effective diffusion coefficient from the electrochemical impedance spectra of composite poly (vinyl alcohol) membranes. 2019 , 38, 13195		2
599	Advanced nanocomposite membranes based on sulfonated polyethersulfone: influence of nanoparticles on PEMFC performance. 2019 , 16, 1617-1629		13
598	Toughened polymer electrolyte membranes composed of sulfonated poly(arylene ether ketone) block copolymer and organosiloxane network for fuel cell. 2019 , 335, 23-31		8
597	A facile approach of fabricating proton exchange membranes by incorporating polydopamine-functionalized carbon nanotubes into chitosan. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 6909-6918	6.7	24
596	Pendant dual-sulfonated poly(arylene ether ketone) multi-block copolymer membranes for enhanced proton conductivity at reduced water swelling. 2019 , 578, 103-110		14
595	The influence of electrodeposited PPy film morphology on the electrochemical characteristics of Nafion-based energy storage devices. 2019 , 836, 165-175		17

594	An Enhanced Fuel Cell Dynamic Model With Electrochemical Phenomena Parameterization as Test Bed for Control System Analysis. 2019 , 16,	1
593	Synthesis and characterisation of PVDF-co-HFP/sTiO ₂ composites polymer electrolyte membranes. 2019 , 6, 125354	1
592	Platinum utilization in proton exchange membrane fuel cell and direct methanol fuel cell - Review. 2019 , 9, 281-310	6
591	Electrochromic iontronic devices based on nanoscale cell membrane-inspired hydrated ion channels in Nafion solid polyelectrolyte. 2019 , 128, 68001	0
590	Effects of Alkaline Cleaning on the Conversion and Transformation of Functional Groups on Ion-Exchange Membranes in Polymer-Flooding Wastewater Treatment: Desalination Performance, Fouling Behavior, and Mechanism. 2019 , 53, 14430-14440	13
589	Preliminary Study of ABS/Chitosan Blend Polymer for DMFC Membranes. 2019 , 961, 23-29	2
588	Effects of Membrane Additives on PEMFC Conditioning. 2019 , 4, 12649-12655	3
587	Composite Nafion Membranes with CaTiO Additive for Possible Applications in Electrochemical Devices. 2019 , 9,	8
586	Towards Creation of Ceramic-Based Low Permeability Reference Standards. 2019 , 12,	4
585	Preparation and characterization of polyvinyl alcohol based nanocomposite membrane for direct methanol fuel cell. 2019 ,	2
584	A polyvinyl alcohol/chitosan blend proton exchange membrane for direct methanol fuel cell. 2019 ,	1
583	Research progress on performance of fuel cell system utilized in vehicle. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 5530-5537	6.7 19
582	Phosphate-type supports for the design of WGS catalysts. 2019 , 244, 853-862	6
581	Anion-exchange membrane with ion-nanochannels to beat trade-off between membrane conductivity and acid blocking performance for waste acid reclamation. 2019 , 573, 657-667	24
580	Nanofiber-Based Proton Exchange Membranes: Development of Aligned Electrospun Nanofibers for Polymer Electrolyte Fuel Cell Applications. 2019 , 7, 1808-1825	50
579	Electrospun tri-layer membranes for H ₂ /Air fuel cells. 2019 , 573, 107-116	9
578	Covalent Organic Frameworks: Chemistry beyond the Structure. 2019 , 141, 1807-1822	519
577	Development of novel sulfonic acid functionalized zeolites incorporated composite proton exchange membranes for fuel cell application. 2019 , 296, 294-307	28

576	Three-electrolyte electrochemical energy storage systems using both anion- and cation-exchange membranes as separators. 2019 , 167, 1011-1018	14
575	Renewable energy harvesting with the application of nanotechnology: A review. 2019 , 43, 1387-1410	72
574	Bio-inspired amino-acid-functionalized cellulose whiskers incorporated into sulfonated polysulfone for proton exchange membrane. 2019 , 409, 123-131	38
573	Polyhedral Oligomeric Silsesquioxane (POSS) Nano-Composite Separation Membranes [A Review]. 2019 , 21, 1800667	28
572	Numerical matching of anisotropic transport processes in porous electrodes of proton exchange membrane fuel cells. 2019 , 195, 127-140	28
571	Graphene-mediated organic-inorganic composites with improved hydroxide conductivity and outstanding alkaline stability for anion exchange membranes. 2019 , 164, 324-332	40
570	A new high temperature polymer electrolyte membrane based on tri-functional group grafted polysulfone for fuel cell application. 2019 , 572, 496-503	31
569	Recent advances in additive-enhanced polymer electrolyte membrane properties in fuel cell applications: An overview. 2019 , 43, 2756-2794	75
568	Remarkable Enhancement of Proton Conductivity by Introducing Imidazole into MOFs and Forming Composite Membranes. 2019 , 2019, 794-799	8
567	Impact of Hydration and Sulfonation on the Morphology and Ionic Conductivity of Sulfonated Poly(phenylene) Proton Exchange Membranes. 2019 , 52, 857-876	37
566	Membranes for Microbial Fuel Cells. 2019 , 143-194	6
565	Nanostructured Mn ₂ O ₃ /Pt/CNTs selective electrode for oxygen reduction reaction and methanol tolerance in mixed-reactant membraneless micro-DMFC. 2019 , 297, 230-239	31
564	Electrochemical and electrical resistance behavior of cathodic arc PVD TiN, CrN, AlCrN, and AlTiN coatings in simulated proton exchange membrane fuel cell environment. 2019 , 70, 281-292	15
563	Electrooxidation study of pure ethanol/methanol and their mixture for the application in direct alcohol alkaline fuel cells (DAAFCs). <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 421-435	6.7 23
562	Nano-ordered aromatic/alicyclic polybenzimidazole blend membranes. 2020 , 146, 104312	2
561	Phosphoric acid doped triazole-containing cross-linked polymer electrolytes with enhanced stability for high-temperature proton exchange membrane fuel cells. 2020 , 595, 117508	34
560	A Multiscale Decomposition Method for Pore-Scale Simulation of Multiphase Transport and Reactions in Cathode Catalyst Layers of Proton Exchange Membrane Fuel Cells. 2020 , 167, 013509	1
559	Sodium doping of Pt/m-ZrO ₂ promotes C-C scission and decarboxylation during ethanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 18490-18501	6.7 15

558	Importance and applications of DOE/optimization methods in PEM fuel cells: A review. 2020 , 44, 4-25		31
557	Metal-Organic Frameworks in Polymer Science: Polymerization Catalysis, Polymerization Environment, and Hybrid Materials. 2020 , 41, e1900333		65
556	Laser-induced graphene as the microporous layer in proton exchange membrane fuel cells. 2020 , 504, 144096		15
555	New non-fluorinated hybrid proton exchange membranes based on commercial precursors. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 18716-18730	6.7	2
554	Improving the proton conductivity of sulfonated poly (ether ether ketone) membranes by incorporating a crystalline nanoassembly of trimesic acid and melamine. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 29883-29891	6.7	7
553	High degree sulfonated poly(ether ether ketone) blend with polyvinylidene fluoride as a potential proton-conducting membrane fuel cell. 2020 , 32, 103-115		4
552	Materials, technological status, and fundamentals of PEM fuel cells A review. 2020 , 32, 178-203		300
551	Novel carbon nanotube supported Co@Ag@Pd formic acid electrooxidation catalysts prepared via sodium borohydride sequential reduction method. 2020 , 241, 122422		14
550	Proton conductivity of PCMOF2 in different temperatures and external electric fields: an insight from molecular dynamics simulation. 2020 , 22, 100741		
549	A review on recent status and challenges of yttria stabilized zirconia modification to lowering the temperature of solid oxide fuel cells operation. 2020 , 44, 631-650		34
548	Superior resistance to hydrogen damage for selective laser melted 316L stainless steel in a proton exchange membrane fuel cell environment. 2020 , 166, 108425		46
547	Polybenzimidazole co-polymers: their synthesis, morphology and high temperature fuel cell membrane properties. 2020 , 11, 1043-1054		22
546	Simultaneous improvement of ionic conductivity and oxidative stability of sulfonated poly(ether ether ketone) nanocomposite proton exchange membrane for fuel cell application. 2020 , 44, 2783-2800		11
545	Anomalous proton conduction behavior across a nanoporous two-dimensional conjugated aromatic polymer membrane. 2020 , 22, 2978-2985		4
544	Planar polymer electrolyte membrane fuel cells: powering portable devices from hydrogen. 2020 , 4, 439-468		21
543	Enhanced oxygen reduction activity of PtCu nanoparticles by morphology tuning and transition-metal doping. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 4427-4434	6.7	10
542	Perfluorinated polymers as materials of membranes for gas and vapor separation. 2020 , 598, 117779		35
541	Thermally stable graft-type polymer electrolyte membranes consisting based on poly (ether ether ketone) and crosslinked graft-polymers for fuel cell applications. 2020 , 171, 108647		8

540	Synthesis and characterization of star-shaped sulfonated new poly(ether triazole)s: Proton exchange membrane properties. 2020 , 123, 109443		1
539	Sulfonic Groups Lined along Channels of Metal-Organic Frameworks (MOFs) for Super-Proton Conductor. 2020 , 59, 396-402		45
538	Incorporating sepiolite and kaolinite to improve the performance of SPEEK composite membranes for proton exchange membrane fuel cells. 2020 , 98, 892-904		7
537	A review of solid oxide fuel cell component fabrication methods toward lowering temperature. 2020 , 44, 594-611		60
536	N-Doped Graphene Supported on Metal-Iron Carbide as a Catalyst for the Oxygen Reduction Reaction: Density Functional Theory Study. 2020 , 13, 996-1005		13
535	Mechanical properties and creep behavior of fluoroelastomer under hydrochloric acid environments. 2020 , 77, 5967-5983		1
534	Non-humidified fuel cells using a deep eutectic solvent (DES) as the electrolyte within a polymer electrolyte membrane (PEM): the effect of water and counterions. 2020 , 22, 2917-2929		19
533	Enhanced ionic conductivity of anion exchange membranes by grafting flexible ionic strings on multiblock copolymers. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 1998-2008	6.7	8
532	Degradation kinetics of Pt during high-temperature PEM fuel cell operation part II: Dissolution kinetics of Pt incorporated in a catalyst layer of a gas-diffusion electrode. 2020 , 333, 135509		10
531	Phosphoric acid-loaded covalent triazine framework for enhanced the proton conductivity of the proton exchange membrane. 2020 , 331, 135235		9
530	PEMs with high proton conductivity and excellent methanol resistance based on sulfonated poly(aryl ether ketone sulfone) containing comb-shaped structures for DMFCs applications. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 945-957	6.7	14
529	Transient stainless-steel dissolution and its consequences on ex-situ bipolar plate testing procedures. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 984-995	6.7	9
528	Enhanced electrocatalytic performance of MoNi encapsulated in onion-like carbon nano-capsules. 2020 , 50, 207-216		4
527	Multi-component organic/inorganic blend proton exchange membranes based on sulfonated poly(arylene ether sulfone)s for fuel cells. 2020 , 210, 123015		6
526	Effect of channel structure on the performance of a planar membrane humidifier for proton exchange membrane fuel cell. 2020 , 163, 120522		9
525	Understanding of free radical scavengers used in highly durable proton exchange membranes. 2020 , 30, 732-742		17
524	100th Anniversary of Macromolecular Science Viewpoint: Block Copolymers with Tethered Acid Groups: Challenges and Opportunities. 2020 , 9, 1527-1541		7
523	Highly filled graphite/graphene/carbon nanotube in polybenzoxazine composites for bipolar plate in PEMFC. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 30898-30910	6.7	16

522	Synergetic Structural Transformation of Pt Electrocatalyst into Advanced 3D Architectures for Hydrogen Fuel Cells. 2020 , 32, e2002210		14
521	Pore-Filled Anion-Exchange Membranes with Double Cross-Linking Structure for Fuel Cells and Redox Flow Batteries. 2020 , 13, 4761		2
520	A systematic review for structure optimization and clamping load design of large proton exchange membrane fuel cell stack. 2020 , 476, 228724		18
519	Recent advances in preparation and application of laser-induced graphene in energy storage devices. 2020 , 18, 100569		18
518	Performance improvement for air-cooled open-cathode proton exchange membrane fuel cell with different design parameters of the gas diffusion layer. 2020 , 30, 825-831		8
517	A highly active and stable Pt modified molybdenum carbide catalyst for steam reforming of dimethyl ether and the reaction pathway. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 31523-31537	6.7	4
516	Organic composite membrane for hydrogen electrochemical conversion devices. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 32493-32507	6.7	0
515	How hydrophobic side chain design affects water cluster connectivity in model polymer electrolyte membranes: Linear versus Y-shaped side chains. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33906-33924	6.7	14
514	One-Pot Synthesis of Proton Exchange Membranes from Anion Exchange Membrane Precursors. 2020 , 9, 1489-1493		2
513	Non-precious and accessible nanocomposite of iron oxide on PDDA-Modified graphene for catalyzing oxygen reduction reaction. 2020 , 5, 100025		0
512	Effect of sulfated metal oxides on the performance and stability of sulfonated poly (ether ether ketone) nanocomposite proton exchange membrane for fuel cell applications. 2020 , 156, 104732		8
511	Transition between Different Diffusion Regimes and Its Relationship with Structural Properties in Nafion by High Field Diffusion NMR in Combination with Small-Angle X-ray and Neutron Scattering. 2020 , 124, 8943-8950		1
510	How Do the Coadsorbates Affect the Oxygen Reduction Reaction Activity of Undoped and N-Doped Graphene Nanoribbon Edges? A Density Functional Theory Study. 2020 , 124, 23177-23189		4
509	Crosslinked polymer electrolytes of high pyridine contents for HT-PEM fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 35053-35063	6.7	7
508	Novel cross-linked poly(vinyl alcohol)-based electrolyte membranes for fuel cell applications.. 2020 , 10, 26521-26527		12
507	Molecular engineering of hydrocarbon membrane to substitute perfluorinated sulfonic acid membrane for proton exchange membrane fuel cell operation. 2020 , 17, 100483		7
506	Predicting the solvation structure and vehicular diffusion of hydroxide ion in an anion exchange membrane using nonreactive molecular dynamics simulation. 2020 , 755, 137802		12
505	Non-precious nickel-based catalysts for hydrogen oxidation reaction in alkaline electrolyte. 2020 , 121, 106871		4

504	Proton Conductive Zr-Phosphonate UPG-1-Aminoacid Insertion as Proton Carrier Stabilizer. 2020 , 25,		1
503	Electrochemical impedance analysis of proton exchange membrane fuel cells with various cathode configurations. 2020 , 37, 1394-1400		3
502	High 3D Proton Conductivity of a 2D Zn(II) MetalOrganic Framework Synthesized via Water-Assisted Single-Crystal-to-Single-Crystal Phase Transformation. 2020 , 124, 18901-18910		10
501	Crosslinked poly(arylene ether sulfone) block copolymers containing quinoxaline crosslinkage and pendant butanesulfonic acid groups as proton exchange membranes. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 25262-25275	6.7	4
500	Effects of carbon supporter on oxygen reduction reaction catalytic activity in proton exchange membrane fuel cell of bimetallic Pt-Ni nanoparticles electrocatalysts. 2020 , 463, 012064		0
499	Ionic Transport Properties of PO-SiO Glassy Protonic Composites Doped with Polymer and Inorganic Titanium-based Fillers. 2020 , 13,		1
498	Role of UV irradiation of Nafion membranes on ionic groups responsible for proton conduction and mechanical strength: A FTIR spectroscopic analysis. 2020 , 25, 101471		2
497	Enhancements in catalytic activity and duration of PdFe bimetallic catalysts and their use in direct formic acid fuel cells. 2020 , 90, 351-357		7
496	Disulfonated Poly(arylene ether sulfone) Random Copolymers Containing Hierarchical Iptycene Units for Proton Exchange Membranes. 2020 , 8, 674		2
495	A long side chain imidazolium-based graft-type anion-exchange membrane: novel electrolyte and alkaline-durable properties and structural elucidation using SANS contrast variation. 2020 , 16, 8128-8143		9
494	Electrochemically Controlled Ion Dynamics in Porphyrin Nanostructures. 2020 , 124, 18346-18355		4
493	Enhanced proton conductivities of chitosan-based membranes by inorganic solid superacid SO ₄ ²⁻ /SiO ₂ coated carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 29212-29221	6.7	4
492	Influence of quaternization and polymer blending modification on the mechanical stability, ionic conductivity and fuel barrier of sodium alginate-based membranes for passive DEFCs. 2020 , 279, 128517		5
491	Web-Based Robo-PEM for Introducing Fuel Cell Implementation. 2020 ,		0
490	The effect of dodecylbenzenesulfonic acid molecules on poly(4,4-diphenylether-5,5-dibenzimidazole) films. 2020 , 27, 1		
489	Scale Effects in Nanoscale Heat Transfer for Fourier's Law in a Dissimilar Molecular Interface. 2020 , 5, 26527-26536		10
488	Functionalized fluorescent terephthalate monomers and their attempted polyester formation. 2020 , 18, 8735-8745		1
487	Recent Progress in Conducting Polymers for Hydrogen Storage and Fuel Cell Applications. 2020 , 12,		8

486	Nanostructures of Nafion Film at Platinum/Carbon Surface in Catalyst Layer of PEMFC: Molecular Dynamics Simulation Approach. 2020 , 124, 21386-21395	11
485	Proton conductivity study on three CS/IL@fle-MOF membranes. 2020 , 34, e5981	2
484	Self-Humidifying Proton Exchange Membranes for Fuel Cell Applications: Advances and Challenges. 2020 , 8, 1069	5
483	Salivary Creatinine Detection Using a Cu(I)/Cu(II) Catalyst Layer of a Supercapacitive Hybrid Sensor: A Wireless IoT Device To Monitor Kidney Diseases for Remote Medical Mobility. 2020 , 6, 5895-5910	11
482	Molecular transportation phenomena of simple liquids through a nanoporous graphene membrane. 2020 , 102, 033110	5
481	Influence of hydrophilic/hydrophobic protic ionic liquids (PILs) on the poly(vinylidene fluoride) (PVDF-ionic liquid) membrane properties. 2020 , 55, 16697-16717	5
480	Polymer grafted GO/sulfonated copolyimide proton exchange nanocomposite membrane: as a polymer electrolyte membranes fuel cell. 2020 , 27, 1	4
479	ab-Initio Study of Hydrogen Bond Networks in 1,2,3-Triazole Phases. 2020 , 25,	
478	Some comments on: Yonoff et' al. 'Research trends in proton exchange membrane fuel cells during 2008-2018: A bibliometric analysis', , 2019, 5: e01724. 2020 , 6, e04848	3
477	Modelling the Proton-Conductive Membrane in Practical Polymer Electrolyte Membrane Fuel Cell (PEMFC) Simulation: A Review. 2020 , 10,	14
476	Effects of 1, 2, 4-Triazole Additive on PEM Fuel Cell Conditioning. 2020 , 10,	1
475	Synthesis and characterization of sulfonated poly(ether ether ketone)/zinc cobalt oxide composite membranes for fuel cell applications. 2020 , 32, 984-991	2
474	Recent Progress in the Development of Aromatic Polymer-Based Proton Exchange Membranes for Fuel Cell Applications. 2020 , 12,	27
473	Review of System Integration and Control of Proton Exchange Membrane Fuel Cells. 2020 , 3, 466-505	45
472	Analyses of scanning electrochemical microscopy and electrochemical impedance spectroscopy in direct methanol fuel cells: permeability resistance and proton conductivity of polyaniline modified membrane. 2020 , 24, 1551-1565	4
471	Examination of compression effects on PEMFC performance by numerical and experimental analyses. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 35085-35096	6.7 14
470	Proton Transport in Metal-Organic Frameworks. 2020 , 120, 8416-8467	173
469	Sulfonated poly(ether sulfone) based sulfonated molybdenum sulfide composite membranes: proton transport properties and direct methanol fuel cell performance. 2020 , 1, 820-829	5

468	Optimal thermal treatment conditions for durability improvement of highly sulfonated poly(ether ether ketone) membrane for polymer electrolyte fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 13441-13458	6.7	14
467	A Novel Approach to Fabricate Membrane Electrode Assembly by Directly Coating the Nafion Ionomer on Catalyst Layers for Proton-Exchange Membrane Fuel Cells. 2020 , 8, 9803-9812		10
466	Vicious cycle during chemical degradation of sulfonated aromatic proton exchange membranes in the fuel cell application. 2020 , 44, 8877-8891		5
465	An uncertainty analysis of the energy intensity of 37 materials used in automobile manufacturing: Statistical methods and recommendations. 2020 , 24, 12-25		2
464	Proton Transport in [BMIM][BF ₄]/Water Mixtures Near the Percolation Threshold. 2020 , 124, 5957-5970		3
463	Immobilized phosphotungstic acid for the construction of proton exchange nanocomposite membranes with excellent stability and fuel cell performance. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 17782-17794	6.7	8
462	Performance Assessment of a Hybrid System with Hydrogen Storage and Fuel Cell for Cogeneration in Buildings. 2020 , 12, 4832		14
461	Sulfonated Poly (Ether Ether Ketone) / Barium Strontium Titanium Oxide Polymer Nanocomposite Membranes for Fuel Cell Applications. 2020 , 59, 1791-1800		2
460	A Comparative Study of the Catalytic Performance of Pt-Based Bi and Trimetallic Nanocatalysts Towards Methanol, Ethanol, Ethylene Glycol, and Glycerol Electro-Oxidation. 2020 , 20, 6274-6285		1
459	Fabrication of highly proton-conductive chitosan whole-bio-membrane materials functionalized with adenine and adenosine monophosphate. 2020 , 22, 2426-2433		7
458	Mechanism and activity of the oxygen reduction reaction on WTe transition metal dichalcogenide with Te vacancy.. 2020 , 10, 8460-8469		6
457	Improved fuel cell properties of Nano-TiO ₂ doped Poly(Vinylidene fluoride) and phosphonated Poly(Vinyl alcohol) composite blend membranes for PEM fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 35130-35138	6.7	14
456	Ion conduction switching between H and OH induced by pH in graphene oxide. 2020 , 56, 4364-4367		7
455	Non-Nafion-based cation exchange membranes for direct methanol fuel cells. 2020 , 37-70		1
454	Role of nitrogenated carbon in tuning Pt-CeOx based anode catalysts for higher performance of hydrogen-powered fuel cells. 2020 , 515, 146054		5
453	A supramolecular hydrogel derived from a simple organic salt capable of proton conduction. 2020 , 56, 5251-5254		7
452	Preparation Polyelectrolyte Complexes of Chitosan-Polyacrylic Acid-Modified Iron Sand Leachate for Proton Exchange Membranes. 2020 , 59, 1277-1283		
451	Metal-Organic Frameworks as a Versatile Platform for Proton Conductors. 2020 , 32, e1907090		118

450	Insights on the Electrochemical Oxidation of Ordered Mesoporous Carbons. 2020 , 167, 024511		8
449	Sulfonated electrospun polystyrene as cation exchange membranes for fuel cells. 2020 , 6, 287-298		16
448	Novel closed anode pressure-swing system for proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 17727-17735	6.7	4
447	Synthesis and characterization of a novel crosslinkable side-chain sulfonated poly(arylene ether sulfone) copolymer proton exchange membranes.. 2020 , 10, 24772-24783		5
446	Cross-Linked Polybenzimidazole Membrane for PEM Fuel Cells. 2020 , 2, 3161-3170		18
445	Influence of thermal aging on decomposition behavior and kinetic mechanism of commercial proton exchange membranes. 2020 , 690, 178664		
444	High proton conductivity dual modified ionic crosslink membrane for fuel cell application at low humidity condition with molecular dynamics simulations. 2020 , 160, 1036-1047		2
443	The effective methanol-blocking and proton conductivity membranes based on sulfonated poly(ether ether ketone ketone) and polyorganosilicon with functional groups. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 22979-22989	6.7	3
442	Synthesis of methanol blocking PVA-TiO ₂ cation exchange membrane for direct methanol alkaline fuel cell. 2020 , 266, 116442		5
441	Fabricating a MOF Material with Polybenzimidazole into an Efficient Proton Exchange Membrane. 2020 , 3, 7964-7977		34
440	Amperometric H ₂ S sensor based on a Pt-Ni alloy electrode and a proton conducting membrane. 2020 , 311, 127900		7
439	Synthesis and characterization of sulfonated poly(vinylidene fluoride-co-hexafluoropropylene)/sAlO composites as a novel-alternative electrolyte membranes of Nafion. 2020 , 6, e03159		1
438	Membranes with novel highly-delocalized sulfonylimide anions for lithium-ion batteries. 2020 , 601, 117918		4
437	Nanosulfonated silica incorporated SPEEK/SPVdF-HFP polymer blend membrane for PEM fuel cell application. 2020 , 26, 3447-3458		19
436	Modeling and numerical simulation of a 5 kg LaNi ₅ -based hydrogen storage reactor with internal conical fins. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 8794-8809	6.7	30
435	An effective strategy to enhance the performance of the proton exchange membranes based on sulfonated poly(ether ether ketone)s. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 10017-10029	6.7	18
434	Carbon-Based Polymer Nanocomposite for High-Performance Energy Storage Applications. 2020 , 12,		69
433	Active Porous Electrodes Prepared by Ultrasonic-bath and their Application in Glucose/O ₂ Electrochemical Reactions. 2020 , 32, 1084-1092		3

432	Performance of H ₂ -fed fuel cell with chitosan/silicotungstic acid membrane as proton conductor. 2020 , 50, 333-341		3
431	A dual-functional metal phosphate for high proton conduction and selective luminescence turn-on sensing of Co ²⁺ ions. 2020 , 22, 2013-2019		2
430	Preparation and characterization of bioinert amphiphilic P(VDF-co-CTFE)-g-POEM graft copolymer. 2020 , 59, 1077-1087		2
429	Copolymer synergistic coupling for chemical stability and improved gas barrier properties of a polymer electrolyte membrane for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 7059-7068	6.7	9
428	Composite membrane of sulfonated polyether ether ketone (sPEEK) [Chitosan for direct methanol fuel cell. 2020 ,		
427	Prognostics methods and degradation indexes of proton exchange membrane fuel cells: A review. 2020 , 123, 109721		49
426	Data Mining of Heterogeneous Electrical Conduction in the Electrode Components of Fuel Cells. 2020 , 12, 23576-23583		5
425	Low temperature water-gas shift: Optimization of K loading on Pt/m-ZrO ₂ for enhancing CO conversion. 2020 , 598, 117572		9
424	Regular Solution Theory for Polymer Permeation Transients: A Toolkit for Understanding Experimental Waveshapes. 2020 , 36, 5003-5020		2
423	A review of quaternized polyvinyl alcohol as an alternative polymeric membrane in DMFCs and DEFCs. 2020 , 44, 6223-6239		21
422	Chitosan/graphene complex membrane for polymer electrolyte membrane fuel cell: A molecular dynamics simulation study. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 25960-25969	6.7	7
421	Poly-hydroxyethylidene-1,1-diphosphonic acid (PHEDP) as a highly effective water-retentive and proton-conductive material for low-humidity proton exchange membranes. 2020 , 606, 118144		5
420	Composite Polymers Development and Application for Polymer Electrolyte Membrane Technologies-A Review. 2020 , 25,		26
419	Enhancing proton conductivity of proton exchange membrane with SPES nanofibers containing porous organic cage. 2020 , 31, 1571-1580		2
418	Platinum-based anode catalyst systems for direct methanol fuel cells. 2020 , 177-200		
417	Effects of reactants/coolant non-uniform inflow on the cold start performance of PEMFC stack. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 13469-13482	6.7	13
416	Fabrication of multi-filler thermoset-based composite bipolar plates for PEMFCs applications: Molding defects and properties characterizations. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 14119-14132	6.7	15
415	Azole structures influence fuel cell performance of phosphoric acid-doped poly(phenylene oxide) with azoles on side chains. 2020 , 605, 118096		12

414	Robust sulfonated poly (ether ether ketone) nanochannels for high-performance osmotic energy conversion. 2020 , 7, 1349-1359		35
413	Optimization of Perfluoropolyether-Based Gas Diffusion Media Preparation for PEM Fuel Cells. 2020 , 13, 1831		4
412	A novel proton conducting ionogel electrolyte based on poly(ionic liquids) and protic ionic liquid. 2020 , 346, 136224		11
411	Facilitating Proton Transport with Enhanced Water Conservation Membranes for Direct Methanol Fuel Cells. 2020 , 8, 5880-5890		11
410	Synthesis and investigation of sulfonated poly(-phenylene)-based ionomers with precisely controlled ion exchange capacity for use as polymer electrolyte membranes.. 2020 , 10, 12810-12822		8
409	Composite Sulfonated Polyether-Ether Ketone Membranes with SBA-15 for Electrochemical Energy Systems. 2020 , 13,		2
408	Atomistic Explanation of the Dramatically Improved Oxygen Reduction Reaction of Jagged Platinum Nanowires, 50 Times Better than Pt. 2020 , 142, 8625-8632		32
407	Energy storage usages: Engineering reactions, economic-technological values for electric vehiclesA technological outlook. 2020 , 30, e12422		8
406	A critical review on recent proton exchange membranes applied in microbial fuel cells for renewable energy recovery. 2020 , 264, 121446		50
405	Covalent Organic Frameworks in Separation. 2020 , 11, 131-153		19
404	Addition of rhenium (Re) to Pt-Ru/f-MWCNT anode electrocatalysts for enhancement of ethanol electrooxidation in half cell and single direct ethanol fuel cell. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 13300-13321	6.7	15
403	Study of the influence of Nafion/C composition on electrochemical performance of PEM single cells with ultra-low platinum load. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 17550-17561	6.7	1
402	New modified Nafion-bisphosphonic acid composite membranes for enhanced proton conductivity and PEMFC performance. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 17562-17571	6.7	10
401	Graphene quantum dot reinforced hyperbranched polyamide proton exchange membrane for direct methanol fuel cell. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 9782-9789	6.7	12
400	Noble-Metal Nanocrystals with Controlled Shapes for Catalytic and Electrocatalytic Applications. 2021 , 121, 649-735		140
399	Modification of nanocellulose membrane by impregnation method with sulfosuccinic acid for direct methanol fuel cell applications. 2021 , 78, 3705-3728		7
398	Waste valorization using solid-phase microbial fuel cells (SMFCs): Recent trends and status. 2021 , 277, 111417		13
397	Potential of Nafion/eggshell composite membrane for application in direct methanol fuel cell. 2021 , 45, 2245-2264		4

396	Development of self-assembling sulfonated graphene oxide membranes as a potential proton conductor. 2021 , 257, 123768		5
395	Mesoporous carbon aerogel with tunable porosity as the catalyst support for enhanced proton-exchange membrane fuel cell performance. 2021 , 19, 100560		7
394	Improved performance of novel sulfonated poly(arylene ether sulfone) copolymer via tethering densely sulfonated pendant groups. 2021 , 484, 229265		2
393	Enhanced performance of proton-conducting poly(arylene ether sulfone)s via multiple alkylsulfonated side-chains and block copolymer structures. 2021 , 621, 118932		5
392	Applications of ejectors in proton exchange membrane fuel cells: A review. 2021 , 214, 106683		10
391	Recent progress of the gas diffusion layer in proton exchange membrane fuel cells: Material and structure designs of microporous layer. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 4259-4282	6.7	18
390	A review of proton exchange membranes based on protic ionic liquid/polymer blends for polymer electrolyte membrane fuel cells. 2021 , 484, 229197		32
389	Overcoming undesired fuel crossover: Goals of methanol-resistant modification of polymer electrolyte membranes. 2021 , 138, 110660		11
388	Study of deep oxidation and sulfonation of graphene oxide as low-temperature fuel cell electrolyte. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 1085-1095	6.7	1
387	Recent advances in process engineering and upcoming applications of metal-organic frameworks. 2021 , 426, 213544		100
386	A promising Al-CeZrO ₄ /HPW-incorporated SPEEK composite membrane with improved proton conductivity and chemical stability for PEM fuel cells. 2021 , 33, 295-308		3
385	Influence of stacking on the aqueous proton penetration behaviour across two-dimensional graphtetrayne. 2021 , 13, 5757-5764		2
384	Fluorinated polymers: evaluation and characterization of structure and composition. 2021 , 6, 144-155		1
383	On the evolution of sulfonated polyphenylenes as proton exchange membranes for fuel cells. 2021 , 2, 4966-5005		13
382	Theoretical hydrogen bonding calculations and proton conduction for Eu(iii)-based metal-organic framework.. 2021 , 11, 11495-11499		2
381	Metal, Metal Oxides, and Metal Sulfide Roles in Fuel Cell. 2021 , 115-145		
380	Spray deposition of sulfonated cellulose nanofibers as electrolyte membranes in fuel cells. 2021 , 28, 1355-1367		5
379	Construction of unimpeded proton-conducting pathways in solution-processed nanoporous polymer membranes. 2021 , 8, 3088-3095		4

378	Potential carbon nanomaterials as additives for state-of-the-art Nafion electrolyte in proton-exchange membrane fuel cells: a concise review.. 2021 , 11, 18351-18370	20
377	Proton conductivity as a function of the metal center in porphyrinylphosphonate-based MOFs. 2021 , 50, 6549-6560	2
376	Impact of N-Substituent and p of Azole Rings on Fuel Cell Performance and Phosphoric Acid Loss. 2021 , 13, 531-540	5
375	Toward a holistic approach for energy efficient buildings. 2021 , 129-193	0
374	Unraveling the Hydroxide Ion Transportation Mechanism along the Surface of Two-Dimensional Layered Double Hydroxide Nanosheets. 2021 , 125, 1240-1248	3
373	Design and application of covalent organic frameworks for ionic conduction. 2021 , 12, 4874-4894	7
372	Ceria nanorods as highly stable free radical scavengers for highly durable proton exchange membranes.. 2021 , 11, 32012-32021	1
371	Metal organic framework-based nanocomposites for alcohol fuel cells. 2021 , 353-370	1
370	Overall enhanced properties of high performance semi-crystalline poly(ether ketone)-based multiblock copolymers via thermal treatment for proton exchange membranes. 2021 , 215, 123382	2
369	Toward predictive permeabilities: Experimental measurements and multiscale simulation of methanol transport in Nafion. 2021 , 59, 594-613	1
368	Electricigens and microbial fuel cells for bioremediation and bioenergy production: a review. 2021 , 19, 2091-2126	4
367	Recent progress of gas diffusion layer in proton exchange membrane fuel cell: Two-phase flow and material properties. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 8640-8671	6.7 19
366	Proton exchange composite membranes comprising SiO ₂ , sulfonated SiO ₂ , and metal-organic frameworks loaded in SPEEK polymer for fuel cell applications. 2021 , 138, 50530	6
365	Preparation of an Anion Exchange Membrane by Pyridine-Functionalized Polyether Ether Ketone To Improve Alkali Resistance Stability for an Alkali Fuel Cell. 2021 , 35, 3360-3367	7
364	Pyridine-Bridged Polybenzimidazole for Use in High-Temperature PEM Fuel Cells. 2021 , 4, 1644-1656	9
363	Protic ionic liquids/poly(vinylidene fluoride) composite membranes for fuel cell application. 2021 , 53, 197-207	21
362	Anion exchange polyelectrolytes for membranes and ionomers. 2021 , 113, 101345	84
361	Novel Proton Exchange Membrane with Long-Range Acid-Base-Pair Proton Transfer Pathways Based on Functionalized Polyethyleneimine. 2021 , 9, 3963-3974	4

360	Enhanced Ion Cluster Size of Sulfonated Poly (Arylene Ether Sulfone) for Proton Exchange Membrane Fuel Cell Application. 2021 , 13,	1
359	Crosslinked Proton Exchange Membranes with a Wider Working Temperature Based on Phosphonic Acid Functionalized Siloxane and PPO. 2021 , 29, 199-210	2
358	Polybenzimidazole and ionic liquid composite membranes for high temperature polymer electrolyte fuel cells. 2021 , 361, 115569	5
357	On the validity of ion selective membrane simplification in concentration polarization. 2021 , 11, 035116	1
356	Porous PTFE reinforced SPEEK proton exchange membranes for enhanced mechanical, dimensional, and electrochemical stability. 2021 , 218, 123506	5
355	In Situ Polymerized Protic Ionogels for Fuel Cells at Elevated Temperatures. 2021 , 60, 3589-3596	3
354	Electrochemical Performance and Alkaline Stability of Cross-linked Quaternized Polyepichlorohydrin/PvDF Blends for Anion-Exchange Membrane Fuel Cells. 2021 , 125, 5494-5504	3
353	Hybrid power plant of the photovoltaic-fuel cell. 2021 , 1108, 012049	0
352	Preparation and characterization of the SPEEK/PVA/Silica hybrid membrane for direct methanol fuel cell (DMFC). 1	4
351	Optimal method for preparing sulfonated polyaryletherketones with high ion exchange capacity by acid-catalyzed crosslinking for proton exchange membrane fuel cells. 2021 , 59, 706-720	0
350	Ionic Mobility in Ion-Exchange Membranes. 2021 , 11,	15
349	In Situ-Doped Superacid in the Covalent Triazine Framework Membrane for Anhydrous Proton Conduction in a Wide Temperature Range from Subzero to Elevated Temperature. 2021 , 13, 13604-13612	5
348	Experimental Investigation of Control Strategies on Voltage Inconsistency for Proton Exchange Membrane Fuel Cells.	0
347	Screening of recycled membrane with crystallinity as a fundamental property. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 13020-13028	6.7 1
346	Multivariate Sulfonic-Based Titanium Metal-Organic Frameworks as Super-protonic Conductors. 2021 , 13, 20194-20200	3
345	Impact of PVA modified sulfonated poly (arylene ether ketone) copolymers as proton exchange membranes on fuel cell parameters. 2021 , 133, 1	0
344	The Preparation of Metal-Organic-Framework/Boron Phosphate Hybrid Materials for Improved Performances in Proton Exchange Membranes. 2021 , 306, 2100053	2
343	Polyoxadiazoles as proton exchange membranes for fuel cell application. 2021 ,	

342	Metal-Organic Frameworks Nanocomposites with Different Dimensionalities for Energy Conversion and Storage. 2100346		25
341	Improved pseudopotential lattice Boltzmann model for liquid water transport inside gas diffusion layers. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 15938-15950	6.7	6
340	Effect of Crosslinking on the Properties of QPVA/PDDA Anion Exchange Membranes for Fuel Cells Application.		0
339	On-demand hydrogen generation by the hydrolysis of ball-milled aluminum composites: A process overview. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 35790-35790	6.7	9
338	Molecular dynamics simulation study on the effect of perfluorosulfonic acid side chains on oxygen permeation in hydrated ionomers of PEMFCs. 2021 , 11, 8702		8
337	A review of functions, attributes, properties and measurements for the quality control of proton exchange membrane fuel cell components. 2021 , 491, 229540		13
336	A review on amorphous noble-metal-based electrocatalysts for fuel cells: Synthesis, characterization, performance, and future perspective. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 14190-14211	6.7	12
335	Cost-effective iron-based aqueous redox flow batteries for large-scale energy storage application: A review. 2021 , 493, 229445		61
334	Facile In Situ Synthesis of Amphiphilic Carbon-Supported Pt: Innovative Catalyst Preparation for Proton Exchange Membrane Fuel Cells. 2021 , 4, 5606-5614		2
333	Organic-inorganic (polysiloxane) crosslinked sulphonated poly(ether ether ketone ketone) hybrid membranes for direct methanol fuel cells. 2021 , 363, 115596		
332	Composite short-side-chain PFSA electrolyte membranes containing selectively modified halloysite nanotubes (HNTs). 2021 , 56, 13108		2
331	Integrated and inherently safe design and operation of a mobile power generation: Process intensification through microreactor reformer and HT-PEMFC. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 23839-23839	6.7	2
330	Review of hydrogen crossover through the polymer electrolyte membrane. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 22040-22061	6.7	8
329	Poly(benzimidazole)/poly(vinylphosphonic acid) blend membranes with enhanced performance for high temperature polymer electrolyte membrane fuel cells. 2021 , 364, 115635		1
328	Preparation and Characterization of a Novel Sulfonated Titanium Oxide Incorporated Chitosan Nanocomposite Membranes for Fuel Cell Application. 2021 , 11,		6
327	New amphiphilic semi-interpenetrating networks based on polysulfone for anion-exchange membrane fuel cells with improved alkaline and mechanical stabilities. 2021 , 226, 123824		5
326	Patterned catalyst layer boosts the performance of proton exchange membrane fuel cells by optimizing water management. 2021 ,		1
325	Ionic Transport Properties of Cation-Exchange Membranes Prepared from Poly(vinyl alcohol--sodium Styrene Sulfonate). 2021 , 11,		1

324	Simulation study for 3D dynamic characteristics of voltage losses in PEM fuel cell. 2021 , 42, 358-363		
323	Microbial Fuel Cell: Recent Developments in Organic Substrate Use and Bacterial Electrode Interaction. 2021 , 2021, 1-16		16
322	Flexible Biofuel Cells: An Overview. 2021 , 145-170		
321	Ultra-hydrophilic porous carbons and their supercapacitor performance using pure water as electrolyte. 2021 , 178, 540-551		10
320	Energy related ion transports in coordination polymers.		1
319	An overview on the development of nanofiber-based as polymer electrolyte membrane and electrocatalyst in fuel cell application. 2021 , 45, 18441		5
318	Effect of hydrogen-bonding networks in water on the proton conductivity properties of metal-organic frameworks. 2021 , 6, 509-509		3
317	Effect of Surface Silanol Density on the Proton Conductivity of Polymer-Surface-Functionalized Silica Nanoparticles. 2021 , 9, 10093-10099		2
316	Hydrogen production in a semi-single-chamber microbial electrolysis cell based on anode encapsulated in a dialysis bag. 2021 , 45, 19074		2
315	Tuning of Electrode Surface for Enhanced Bacterial Adhesion and Reactions: A Review on Recent Approaches.. 2021 , 4, 5809-5838		3
314	Role of UV irradiated Nafion in power enhancement of hydrogen fuel cells. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 25596-25607	6.7	2
313	High performance polyvinylidene fluoride/graphite/multi-walled carbon nanotubes composite bipolar plate for PEMFC with segregated conductive networks. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 25666-25676	6.7	3
312	Ion-Exchanged UPG-1 as Potential Electrolyte for Fuel Cells. 2021 , 60, 11803-11812		0
311	Current progress in membranes for fuel cells and reverse electrodialysis. 2021 , 31, 423-432		5
310	Pore-Filled Proton-Exchange Membranes with Fluorinated Moiety for Fuel Cell Application. 2021 , 14, 4433		3
309	Recent advances in phosphoric acid-based membranes for high-temperature proton exchange membrane fuel cells. 2021 ,		8
308	A critical review on surface-pattern engineering of nafion membrane for fuel cell applications. 2021 , 145, 110860		7
307	Full Factorial In Situ Characterization of Ionomer Properties in Differential PEM Fuel Cells. 2021 , 168, 084504		1

306	Architecture dependent water uptake in model polyelectrolyte membranes. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 28232-28245	6.7	
305	Biodegradable polymers for membrane separation. 2021 , 269, 118731		20
304	Synthesis of degradation mechanisms and of their impacts on degradation rates on proton-exchange membrane fuel cells and lithium-ion nickel manganese cobalt batteries in hybrid transport applications. 2021 , 212, 107369		4
303	Effect of imidazole-doped nanocrystalline cellulose on the characterization of Nafion films of fuel cells. 2021 , 96, 3114		1
302	Construction of Proton Transport Highways Induced by Polarity-Driving in Proton Exchange Membranes to Enhance the Performance of Fuel Cells. 2021 , 13, 40673-40684		1
301	Controlled Water Uptake in Fuel Cell Membranes with Dual Chemistry Confinement. 2021 , 33, 6662-6670		2
300	Proton conduction of novel calcium phosphate nanocomposite membranes for high temperature PEM fuel cells applications. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 30641-30657	6.7	10
299	Synergistic effect of MOF-Directed acid-base pairs for enhanced proton conduction. 2021 , 323, 111199		0
298	Dynamic behavior of droplet transport on realistic gas diffusion layer with inertial effect via a unified lattice Boltzmann method. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 33260-33271	6.7	0
297	Sulfonated poly(arylene ether)s based proton exchange membranes for fuel cells. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 31727-31753	6.7	4
296	Stretchable and Stable Electrolyte-Gated Organic Electrochemical Transistor Synapse with a Nafion Membrane for Enhanced Synaptic Properties. 2100918		2
295	Low-temperature proton-exchange membrane fuel cell-grade hydrogen production by membrane reformer equipped with Pd-composite membrane and methanation catalyst on permeation stream. 2021 , 634, 119373		7
294	Microarchitecture of polyvinylidene fluoride-bound self-standing microporous layer and its implication to water management in fuel cells. 2021 , 506, 230129		4
293	Algae-assisted microbial fuel cells: A practical overview. 2021 , 15, 100747		7
292	Recent advances in efficient emissive materials-based OLED applications: a review. 2021 , 56, 18837		13
291	Preparation of highly porous heat-resistant polybenzoxazole network films and their electrical conductivities.		
290	Anhydrous Proton Transport within Phosphonic Acid Layers in Monodisperse Telechelic Polyethylenes. 2021 , 143, 16725-16733		2
289	Applications of poly ionic liquids in proton exchange membrane fuel cells: A review. 2021 , 510, 230371		11

288	Development of proton-exchange membrane fuel cell with ionic liquid technology. 2021 , 793, 148705	8
287	Patterned mesoporous TiO ₂ microplates embedded in Nafion [®] membrane for high temperature/low relative humidity polymer electrolyte membrane fuel cell operation. 2021 , 180, 203-212	3
286	Dehydrofluorinated poly(vinylidene fluoride-co-hexafluoropropylene) based crosslinked cation exchange membrane for brackish water desalination via electrodialysis. 2021 , 630, 127576	0
285	Polybenzoxazines in fabrication of separation membranes: A review. 2022 , 278, 119562	2
284	Advanced applications and current status of green nanotechnology in the environmental industry. 2022 , 303-340	
283	Elastocaloric cooler for waste heat recovery from proton exchange membrane fuel cells. 2022 , 238, 121789	1
282	Liquid Fueled Fuel Cells. 2021 ,	0
281	Acidity effects of medium fluids on anhydrous proton conductivity of acid-swollen block polymer electrolyte membranes.. 2021 , 11, 19012-19020	0
280	Relevance of Chemically Functionalized Nano-Fillers and Modified Nanocomposite in Energy Systems. 2021 , 1854-1909	
279	Polymer-based nanomaterials to use in hydrogen acquisition and hydrogen energy storage. 2021 , 153-186	1
278	Influence of Nanoconfinement on the Hydrogen Release Processes from Sodium Alanate. 2021 , 2, 1-9	0
277	Covalent organic frameworks (COFs) for electrochemical applications. 2021 , 50, 6871-6913	104
276	A review of progressive advanced polymer nanohybrid membrane in fuel cell application. 2020 , 44, 8255-8295	20
275	Construction of Strandberg-Type Polyoxometalate-Based Inorganic-Organic Hybrid Material with Water-Assisted Proton Conductivity. 2020 , 5, 5883-5888	4
274	Organic/Inorganic and Sulfated Zirconia Nanocomposite Membranes for Proton-Exchange Membrane Fuel Cells. 2017 , 219-240	1
273	Structure and Transport Properties of Polymer Electrolyte Membranes Probed at Microscopic Scales. 2013 , 163-193	1
272	Investigation of mechanical vibration effect on proton exchange membrane fuel cell cold start. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 14528-14538	6.7 6
271	Nanoconfined Fluids: What Can We Expect from Them?. 2020 , 11, 4678-4692	35

270	Crystalline Porous Organic Polymer Bearing SO_3H Functionality for High Proton Conductivity. 2020 , 8, 2423-2432	19
269	Morphological effect of side chain on HO transfer inside polymer electrolyte membranes across polymeric chain via molecular dynamics simulation. 2020 , 10, 22014	2
268	Production Methods of Stacks and Hydrogen with Associated Costs. 2015 ,	1
267	Physically Based Modeling of PEMFC Cathode Catalyst Layers: Effective Microstructure and Ionomer Structure-Property Relationship Impacts. 2020 , 17,	2
266	Sodium p-Styrene Sulfonate- 1-Vinylimidazole Copolymers for Acid-Base Proton-Exchange Membranes. 2020 , 2, 76-84	2
265	Enhanced Corrosion Resistance of Additively Manufactured 316L Stainless Steel After Heat Treatment. 2020 , 167, 141504	7
264	Synthesis and characterization of zirconium phosphate and poly(ethylene oxide) based polymer composite. 748-754	1
263	Intercalated Poly (2-Acrylamido-2-methyl-1-propanesulfonic Acid) into Sulfonated Poly (1,4-Phenylene ether-ether-sulfone) Based Proton Exchange Membrane: Improved Ionic Conductivity. 2020 , 26,	1
262	Liquid fuel cells. 2014 , 5, 1399-418	112
261	Recent Progresses in Membranes for Proton Exchange Membrane Fuel Cell (PEMFC) for Clean and Environmentally Friendly Applications. 2019 , 308-343	2
260	Relevance of Chemically Functionalized Nano-Fillers and Modified Nanocomposite in Energy Systems. 2019 , 10-65	2
259	Robust ionic liquid@MOF composite as a versatile superprotonic conductor. 2021 , 50, 15914-15923	1
258	Production of High-Purity Hydrogen by Steam Reforming of Associated Petroleum Gas in Membrane Reactor with Industrial Nickel Catalyst. 2021 , 3, 302-309	1
257	Self-Humidifying Membrane for High-Performance Fuel Cells Operating at Harsh Conditions: Heterojunction of Proton and Anion Exchange Membranes Composed of Acceptor-Doped SnPO Composites. 2021 , 11,	0
256	Microstructures and Proton Networks of Ionomer Film on the Surface of Platinum Single Atom Catalyst in Polymer Electrolyte Membrane Fuel Cells.	3
255	Ionic liquid-modified materials as polymer electrolyte membrane and electrocatalyst in fuel cell application: An update.	0
254	Inversion of Solvent Migration in Charged Membranes. 2021 , 127, 156001	2
253	Nafion Protective Membrane Enables Using Ruthenium Oxide Electrodes for pH Measurement in Milk. 2021 , 168, 107511	2

- 252 An overview on the progress and development of modified sulfonated polyether ether ketone membranes for vanadium redox flow battery applications. 095400832110493 2
- 251 Study on fiber-reinforced proton exchange membrane using high-surface-energy substrate. **2021**, 119940 0
- 250 Progress in poly(phenylene oxide) based cation exchange membranes for fuel cells and redox flow batteries applications. *International Journal of Hydrogen Energy*, **2021**, 46, 38381-38415 6.7 4
- 249 Semi-interpenetrating polymer networks of poly (vinyl alcohol)-functionalized nanocrystals/sulfonated poly (ether ether ketone) (PVA-FNCs/SPEEK) as fuel cell membrane. **2021**, 29, 102897 3
- 248 Solid Cation Electrolytes and Methanol Energetics. **2011**, 7, 17-32 0
- 247 Design Optimization of a 500W Fuel Cell Stack Weight for Small Robot Applications. **2012**, 32, 275-281
- 246 Effect of Iodine-coated Bipolar Plates on the Performance of a Polymer Exchange Membrane (PEM) Fuel Cell. **2013**, 24, 61-69
- 245 Performance of Modified-Silicon Carbide Fiber Composites Membrane for Polymer Exchange Membrane Fuel Cells. **2014**, 25, 28-38
- 244 Research of Characterization of Covalently Cross-linked SPEEK/Cs-Substituted MoPA/Ceria 1wt% Composite Membrane for Water Electrolysis. **2014**, 25, 1-10
- 243 Characterization of Membranes. **2015**, 289-328
- 242 Effects of Solvent and Blending on the Physical Properties of Sulfonated Poly(Ether Ether Ketone): A Promising Membrane Material for PEMFC. **2015**, 708-737
- 241 Polyphosphazene Membranes. **2015**, 271-314
- 240 Effect of Polyelectrolyte Multilayer Fabrication Method on Conductance for Fuel Cell Applications. **2015**,
- 239 A Study on Characteristics of Hydrogen Leakage in Hydrogen Town Governor Room. **2016**, 27, 685-692
- 238 Micro-Electromechanical Systems for Underwater Environments. **2017**, 529-556
- 237 Changing Trends in Microalgal Energy Production- Review of Conventional and Emerging Approaches. **2017**, 11, 993-1007
- 236 Decal Transfer Method of Hydrocarbon Membranes for Fabricating a Membrane Electrode Assembly (MEA). **2017**, 13, 51-57
- 235 Utilization of statistical analysis and characterization methods in accordance to evaluate structural changes in biomass during pretreatment with aqueous ammonia. 1-1

- 234 Tong quan c[^] ã ky thuat thu nãg l^ong tu te b[^] o nhi[^] h lieu vi khuan. **2019**, 55(6), 1
- 233 Design of Heterogeneities and Interfaces with Nanofibers in Fuel Cell Membranes. **2019**, 979-1015
- 232 Proton Conductions. **2019**, 977-1010
- 231 State-of-the-Art and Development Trends of Energy Management Strategies for Intelligent and Connected New Energy Vehicles: A Review. 0
- 230 Real-Time Optimization of a CO Preferential Oxidation Reactor Temperature with Extremum Seeking Control Techniques. **2020**, 5, 13822-13828 0
- 229 Development of a Microbial Fuel Cell Using Methylococcus' Chroococcus Bacteria as a Biocatalyst. **2021**, 11, 1295
- 228 Modifications on Promoting the Proton Conductivity of Polybenzimidazole-Based Polymer Electrolyte Membranes in Fuel Cells. **2021**, 11, 1
- 227 Water-gas shift: effect of Na loading on Pt/m-zirconia catalysts for low-temperature shift for the production and purification of hydrogen. **2020**, 143-160 0
- 226 Solid Electrolyte Membranes for Low- and High-Temperature Fuel Cells. **2021**, 109-125
- 225 A Review on PEM Fuel Cells Used for Automotive Applications, Models and Hydrogen Storage for Hybrid Electric Fuel Cell Vehicle. 2
- 224 Experimental study of the influence of dynamic load cycle and operating parameters on the durability of PEMFC. **2022**, 239, 122356 5
- 223 Fuel Cell Technologies, Applications, and State of the Art. A Reference Guide. **2022**, 315-333 1
- 222 Sulfonic and phosphonic porous solids as proton conductors. **2022**, 451, 214241 5
- 221 Hydrogen and Fuel Cells in Transport Road, Rail, Air, and Sea. **2020**, 0
- 220 Preparation and Properties of Novel Sulfonated Pentablock Copolymer (sPBC) Membrane for PEM Fuel Cell. **2020**, 613-621
- 219 New developments in hydrogen fuel cells. **2020**, 273-298
- 218 Synthesis of TiO₂ Compositing Nitrogen-doped Carbon Supports for High-Performance Methanol Oxidation Activity. **2020**, 30, 14-21
- 217 Introductory Chapter: An Overview of Recent Advances in Membrane Technologies. 0

216	Silica-facilitated proton transfer for high-temperature proton-exchange membrane fuel cells. 1	3
215	Durability Evaluation of Air-Cooled Proton Exchange Membrane Fuel Cells Stacks by Repeated Start-Up/Shut-Down. 2021 , 32, 315-323	1
214	Factors influencing the performance of PEM fuel cells: A review on performance parameters, water management, and cooling techniques.	3
213	Investigation of Filtration Phenomena of Air Pollutants on Cathode Air Filters for PEM Fuel Cells. 2021 , 11, 1339	0
212	Progress of high temperature polybenzimidazole proton exchange membrane: a systematic review. 2021 , 2076, 012032	0
211	Nano-scale chemical imaging by AFM-IR: An application to analysis of fuel cell membranes. 2020 , 88, 235-239	
210	Parametric Effects on Proton Exchange Membrane Fuel Cell Performance: An Analytical Perspective. 2020 , 5, 926-938	0
209	Radiation-Grafted Polymer Electrolyte Membranes for Fuel Cells.	
208	Investigation of Proton Transport Mechanism in Protic Ionic Liquid Based Polymeric Nanocomposite Membranes. 2021 , 83-90	
207	Mechanical stress and strain investigation of sulfonated Poly(ether ether ketone) proton exchange membrane in fuel cells: A numerical study. 2022 , 184, 182-200	2
206	Controlling hydrophilic channel alignment of perfluorinated sulfonic acid membranes via biaxial drawing for high performance and durable polymer electrolyte membrane water electrolysis. 2022 , 518, 230772	1
205	Complex Processing of Adsorbent Used in the Purification of Hydrogen-Containing Gas. 2022 , 17, 32-45	0
204	Proton-Conducting Hydrogen-Bonded Organic Frameworks. 4431-4453	16
203	Dynamic optimization of a cogeneration plant for an industrial application with two different hydrogen embedding solutions. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7 0
202	Enhanced performance and durability of composite membranes containing anatase titanium oxide for fuel cells operating under low relative humidity.	5
201	Recent developments in high-performance Nafion membranes for hydrogen fuel cells applications. 2021 ,	4
200	The effect of crosslinking on ion transport in nanocellulose-based membranes.. 2022 , 278, 118938	3
199	Bioenergy Production: Opportunities for Microorganisms (Part I). 2021 , 1-41	

198	A confinement of N-heterocyclic molecules in a metal-organic framework for enhancing significant proton conductivity.. 2021 , 12, 355-364	1
197	Sustainable Polymer-Based Materials for Energy and Environmental Applications. 2022 , 9-30	0
196	Alkaline Stable Anion Exchange Membranes Based on Cross-Linked Poly(arylene ether sulfone) Bearing Dual Quaternary Piperidines for Enhanced Anion Conductivity at Low Water Uptake.. 2022 , 27,	1
195	Electricity generation enhancement in microbial fuel cell via employing a new SPEEK based proton exchange membrane modified by goethite nanoparticles functionalized with tannic acid and sulfanilic acid. 2022 , 25, 102168	1
194	Proton donor/acceptor copolymer brushes on sulfonated poly(ether ether ketone) membrane: An approach to construct efficient proton transfer pathway in polymer electrolyte membrane fuel cell. 2022 , 240, 124523	1
193	The performance and durability of high-temperature proton exchange membrane fuel cells enhanced by single-layer graphene. 2022 , 93, 106829	3
192	Sulfonated poly(phenylene-co-arylene ether sulfone) multiblock membranes for application in high-performance fuel cells. 2022 , 645, 120203	1
191	High Aspect Ratio Bipolar Plate Fuel Cell Micro-Patterning Using Aluminum Oxide as a Masking Layer. 2020 ,	
190	Optimization of ejector structure for the PEMFC hydrogen recirculation system. 2020 ,	0
189	Acid Enrichment Via Electrodialysis Fabricated with Poly(Vinyl Chloride)-Based Anion Exchange Membrane: Effect of Hydrophobicity of Aliphatic Side-Chains Tethered on Imidazolium Groups.	
188	Use of Lignosulfonate from Pulping Industrial Waste as a Potential Material for Proton Exchange Membrane in Fuel Cells. 1	
187	A perspective on development of fuel cell materials: Electrodes and electrolyte.	3
186	Transport phenomena in polymer electrolyte membrane fuel cells. 2022 , 341-368	
185	Sizing, Optimization, and Financial Analysis of a Green Hydrogen Refueling Station in Remote Regions. 2022 , 15, 547	2
184	The Effect of Sulfated Zirconia and Zirconium Phosphate Nanocomposite Membranes on Fuel-Cell Efficiency.. 2022 , 14,	2
183	In-situ preparation of PSSA functionalized ZWP/sulfonated PVDF composite electrolyte as proton exchange membrane for DMFC applications. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7 1
182	Recent Advancements in Polysulfone Based Membranes for Fuel Cell (PEMFCs, DMFCs and AMFCs) Applications: A Critical Review.. 2022 , 14,	5
181	Overview of nanostructured and nano-enhanced membranes. 2022 , 1-16	

180	Designable Guest Molecules Encapsulation in Metal-Organic Frameworks for Proton Conduction Property.. 2022,		0
179	Protic ionic liquids as next-generation proton exchange membrane materials: Current status & future perspectives. 2022, 171, 105160		2
178	Microbial Fuel Cells (MFCs) for Waste Recycling and Energy Production. 2022, 275-308		
177	Thermogravimetric study and kinetic modeling of semi-interpenetrating polymer network protonic conductive membranes to PEMFC. 1		
176	Fast proton-selective transport through covalent organic frameworks in aqueous phase. 2022, 120361		2
175	Part II: NiMoO Nanostructures Synthesized by the Solution Combustion Method: A Parametric Study on the Influence of Material Synthesis and Electrode-Fabrication Parameters on the Electrocatalytic Activity in the Hydrogen Evolution Reaction.. 2022, 27,		0
174	Properties and Applications of Metal Phosphates and Pyrophosphates as Proton Conductors.. 2022, 15,		4
173	Functionalized Fluoropolymer Membrane for Fuel Cell Applications. 2022, 517-540		1
172	Hybrid composite of Nafion with surface-modified electrospun polybenzoxazine (PBz) fibers ozonation as fillers for proton conducting membranes of fuel cells.. 2022, 12, 9512-9518		0
171	Influence of vanillic acid immobilization in Nafion membranes on intramembrane diffusion and structural properties.. 2022,		0
170	Nanomembranes in fuel cells. 2022, 285-347		
169	Preparation and Characterization of a Newly Constructed Multifunctional Co(II)-organic Framework: Proton Conduction and Adsorption of Congo Red in Aqueous Medium.		0
168	Nanomaterials in biofuel cells. 2022, 411-444		
167	Novel polymeric additives in the preparation and modification of polymeric membranes: A comprehensive review. 2022,		0
166	Chemical Vapor Deposition for Advanced Polymer Electrolyte Fuel Cell Membranes.		1
165	Facile Access to gem-Trifluoromethyl/Boron-Functionalized Polymers via Free-Radical Copolymerization and Cotelomerization. 2022, 55, 1524-1532		1
164	Preparation of functional copolymer based composite membranes containing graphene oxide showing improved electrochemical properties and fuel cell performance. <i>International Journal of Hydrogen Energy</i> , 2022,	6.7	0
163	Proton exchange membrane from the blend of poly(vinylidene fluoride) and functional copolymer: Preparation, proton conductivity, methanol permeability, and stability. <i>International Journal of Hydrogen Energy</i> , 2022,	6.7	1

162	Self-Assembly-Cooperating in Situ Construction of MXene/CeO ₂ as Hybrid Membrane Coating for Durable and High-Performance Proton Exchange Membrane Fuel Cell. 2022 , 10, 4269-4278	3
161	Investigation of sulfonation reaction kinetics and effect of sulfonation degree on membrane characteristics for PEMFC performance. 2022 , 28, 2323	1
160	High jolt-resistance monolithic CuO/CeO ₂ /AlOOH/Al-fiber catalyst for CO-PROX: Influence of AlOOH/Al-fiber calcination on Cu/Ce interaction. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 13030-13043	6.7 0
159	Simultaneous improvement of power density and durability of sulfonated poly(ether ether ketone) membrane by embedding CeO ₂ -ATiO ₂ : A comprehensive study in low humidity proton exchange membrane fuel cells.	0
158	Current status of cross-linking and blending approaches for durability improvement of hydrocarbon-based fuel cell membranes. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 13460-13489	6.7 0
157	Translational Jump-Diffusion of Hydroxide Ion in Anion Exchange Membrane: Deciphering the Nature of Vehicular Diffusion.. 2022 ,	1
156	Multiscale simulation approach to investigate the binder distribution in catalyst layers of high-temperature polymer electrolyte membrane fuel cells.. 2022 , 12, 3810	0
155	Operando detection of oxygen reduction reaction kinetics of Fe/N/C catalysts in proton exchange membrane fuel cells. 2022 , 533, 231058	1
154	Recent advances in metal organic framework and cellulose nanomaterial composites. 2022 , 461, 214496	4
153	Enhancing the properties of water and gas management for proton exchange membrane fuel cells via tailored intersected cracks in a microporous layer. 2022 , 533, 231402	1
152	An experimental approach to evaluate drying kinetics and foam formation in inks for inkjet printing of fuel-cell layers. 2022 , 135, 110631	3
151	Dynamic and Static characterization of the absorption process in metal hydride tanks for Mobile Applications. 2021 ,	1
150	Improving the Durability and Performance of Sulfonated Poly(arylene ether)s by Introducing 9,10-Dihydro-9-oxa-10-phosphaphenanthrene 10-oxide Structure for Fuel Cell Application.. 2021 , 6, 35315-35324	0.4
149	Electrochemical Characterization of Novel Polyantimonic-Acid-Based Proton Conductors for Low- and Intermediate-Temperature Fuel Cells. 2021 , 11, 11877	0
148	Future prospects of sustainable membranes. 2022 , 389-417	
147	Acid enrichment via electrolysers fabricated with poly(vinyl chloride)-based anion exchange membrane: Effect of hydrophobicity of aliphatic side-chains tethered on imidazolium groups. 2022 , 120907	1
146	Does the composition in PtGe clusters play any role in fighting CO poisoning?. 2022 , 156, 174301	1
145	Three-dimensional simulations for counter-flow proton exchange membrane fuel cells with thin catalyst-coated membrane cooled by liquid water.	0

144	Hydrogen-Bonded Organic Frameworks: Functionalized construction strategy by nitrogen-containing functional group.. 2022 ,		3
143	Preparation of Novel Biodegradable Cellulose Nanocrystal Proton Exchange Membranes for Direct Methanol Fuel-Cell Applications.		2
142	Data_Sheet_1.PDF. 2020 ,		
141	PEM Fuel Cell and Electrolysis Cell Technologies and Hydrogen Infrastructure Development: A Review.		5
140	A review on process design and bilayer electrolyte materials of bipolar membrane fuel cell.		0
139	Carbon-Supported Noble-Metal Nanoparticles for Catalytic ApplicationsA Review. 2022 , 12, 584		5
138	Effect of thermal crosslinking process on membrane structure and PEM fuel cell applications performed with SPEEK-PVA blend membranes. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
137	A State-of-Art on the Development of Nafion-Based Membrane for Performance Improvement in Direct Methanol Fuel Cells. 2022 , 12, 506		2
136	Tuning Polybenzimidazole Membrane by Immobilizing a Novel Ionic Liquid with Superior Oxygen Reduction Reaction Kinetics.		
135	A Facile and Sustainable Enhancement of Anti-Oxidation Stability of Nafion Membrane. 2022 , 12, 521		0
134	Study on the CCM breakdown voltage of proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	
133	Rational design of carbon network structure in microporous layer toward enhanced mass transport of proton exchange membrane fuel cell. 2022 , 539, 231623		1
132	Designing independent water transport channels to improve water flooding in ultra-thin nanoporous film cathodes for PEMFCs. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
131	Lattice Boltzmann simulation of a gas diffusion layer with a gradient polytetrafluoroethylene distribution for a proton exchange membrane fuel cell. 2022 , 320, 119248		3
130	Para ´ Fluoro-Thiol Clicked Diblock-Copolymer Self-Assembly: Towards a New Paradigm for Highly Proton-Conductive Membranes.		
129	Performance of SS304 Modified by Silver Micro/Nano-Dendrite Coating with Hot-Water Super-Repellency in Simulated PEMFC Cathode Environment. 2022 , 12, 1726		0
128	Multilayer additive manufacturing of catalyst-coated membranes for polymer electrolyte membrane fuel cells by inkjet printing. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 20973-20986	6.7	3
127	Exploring critical parameters of electrode fabrication in polymer electrolyte membrane fuel cells. 2022 , 540, 231638		0

126	Applications, drawbacks, and future scope of nanoparticle-based polymer composites. 2022 , 243-275	1
125	Casein proteins as building-blocks for making ion-conductive bioplastics.	1
124	Emerging Trends in Biomass-Derived Carbon-Supported Metal Nanostructures as Efficient Electrocatalysts for Critical Electrochemical Reactions in Low Temperature Fuel Cell Applications. 225-256	0
123	On the Performance of Proton Exchange Membrane Fuel Cells with a Catalyst Layer Fabricated Using an Inorganic Dispersant with Various Ultrasonic Mixing.	
122	Investigating the performance of functionalized and pristine graphene oxide impregnated Nexar™ nanocomposite membranes for PEM fuel cell. 2022 , 100346	
121	Experimental study on water transport in membrane humidifiers for polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7 0
120	Comparative study on proton conductivity of P- and G-UC. 2022 , 313, 123301	
119	Sulfonated poly(ether ether ketone): efficient ion-exchange polymer electrolytes for fuel cell applications—versatile review.	1
118	Alcohol Diffusion in Alkali-Metal-Doped Polymeric Membranes for Using in Alkaline Direct Alcohol Fuel Cells. 2022 , 12, 666	0
117	Recent advances in the synthesis and applications of porous zirconium phosphate.	0
116	THEORETICAL STUDY OF THE EFFECT OF rGO/GO COMPOSITE COMPOSITION ON THE HYDROGEN FUEL CELL CHARACTERISTICS. 2022 , 63, 951-955	
115	Visualizing Eigen/Zundel cations and their interconversion in monolayer water on metal surfaces. 2022 , 377, 315-319	5
114	The Role of Carbon-Based Materials for Fuel Cells Performance. 2022 ,	2
113	Recent biopolymers used for membrane fuel cells: Characterization analysis perspectives.	1
112	Antioxidant technology for durability enhancement in polymer electrolyte membranes for fuel cell applications. 2022 ,	0
111	Adamantane-based block poly(arylene ether sulfone)s as anion exchange membranes. 2022 , 255, 125155	0
110	Co-filling of ZIFs-derived porous carbon and silica in improvement of sulfonated poly(ether ether ketone) as proton exchange membranes for direct methanol fuel cells. 2022 , 543, 231853	1
109	para fluoro-thiol clicked diblock-copolymer self-assembly: Towards a new paradigm for highly proton-conductive membranes. 2022 , 659, 120796	1

- 108 Synergistically promoted proton conduction of proton exchange membrane by phosphoric acid functionalized carbon nanotubes and graphene oxide. **2022**, 659, 120810 ○
- 107 The effect of supporting carbons on the gas phase synthesis of octahedral Pt₃Ni electrocatalysts with various H₂:CO ratios. **2022**, 12, ○
- 106 Conduction Mechanism in Graphene Oxide Membranes with Varied Water Content: From Proton Hopping Dominant to Ion Diffusion Dominant. ○
- 105 Bibliometric analysis of prognostics and health management (PHM) in hydrogen fuel cell engines. **2022**, ○
- 104 Phosphosilicate nano-network (PPSN)-Polybenzimidazole (PBI) composite electrolyte membrane for enhanced proton conductivity, durability and power generation of HT-PEMFC. **2022**, ○
- 103 Recent developments in graphene and graphene oxide materials for polymer electrolyte membrane fuel cells applications. **2022**, 168, 112836 4
- 102 Influence of the S-containing ligand on adsorption of platinum single atom on a carbon nanotube: A DFT study. **2022**, 1270, 133850 ○
- 101 Performance evaluation of passive alkaline direct methanol fuel cell-the effect of inorganic salt and TiO₂ nano fillers. **2022**, 53, 102673 ○
- 100 Highly ion selective composite proton exchange membranes for vanadium redox flow batteries by the incorporation of UiO-66-NH₂ threaded with ion conducting polymers. **2022**, 662, 121003 ○
- 99 Fabrication of high proton conducting composite membranes from amino group functionalized MOF and semi-fluorinated sulfonated poly(arylene ether sulfone)s. **2022**, 179, 111574 ○
- 98 Functionalized nanoclays for improved properties of composite proton exchange membranes. **2022**, 549, 232083 ○
- 97 Proton exchange polyionic liquid-based membrane fuel cell applications. **2022**, 16, 100653 ○
- 96 Organic-Inorganic Nanohybrids in Fuel Cell Applications. **2022**, 445-459 ○
- 95 Nanostructured Electrocatalysts for Fuel Cell Applications. **2022**, 1-26 ○
- 94 Polymer Electrolytes for Fuel Cells. **2022**, 1-27 ○
- 93 Fluoropolymers and Their Nanohybrids As Energy Materials: Application to Fuel Cells and Energy Harvesting. **2022**, 7, 34718-34740 ○
- 92 Estudio teórico de la oxidación de CO con O₂ usando catalizadores de Au-Pd y Au-Pt. **2022**, 51, ○
- 91 Polydopamine-Derived Iron-Doped Hollow Carbon Nanorods as an Efficient Bifunctional Electrocatalyst for Simultaneous Generation of Hydrogen and Electricity. **2022**, 36, 11245-11260 ○

- 90 Extreme Ion Transport Inorganic 2D Membranes for Nanofluidic Applications. 2206354 0
- 89 Norbornene-based acidBase blended polymer membranes with low ion exchange capacity for proton exchange membrane fuel cell. **2022**, 5, 2131-2137 0
- 88 Modified sulfonated polyphenylsulfone proton exchange membrane with enhanced fuel cell performance: A review. **2022**, 0
- 87 Fuel Cell Fed Shunt Active Power Filter for Power Quality Issue by Electric Vehicle Charging. **2022**, 247-264 0
- 86 The Effect of Ion Exchange Poisoning on the Ion Transport and Conduction in Polymer Electrolyte Membranes (PEMs) for Water Electrolysis. **2022**, 169, 094510 0
- 85 Preparation and characterization of Red Mud modified Chitosan-PVA composite membrane for direct methanol fuel cell. 1-28 0
- 84 Recovery of waste heat from proton exchange membrane fuel cells [A review]. **2022**, 2
- 83 Influence mechanisms of flow channel geometry on water transfer and pressure loss in planar membrane humidifiers for PEM fuel cells. **2022**, 0
- 82 A New Method for Determination of Molecular Weight of Compounds Soluble in Protic Solvents by Electrochemical Impedance Spectroscopy. 0
- 81 Degradation prediction model of PEMFC based on multi-reservoir echo state network with mini reservoir. **2022**, 0
- 80 Electronic structure manipulation via composition tuning for the development of highly conductive and acid-stable oxides. 0
- 79 Role of the Membrane Transport Mechanism in Electrochemical Nitrogen Reduction Experiments. **2022**, 12, 969 0
- 78 Lignin-incorporated bacterial nanocellulose for proton exchange membranes in microbial fuel cells. **2022**, 126963 1
- 77 SPEEK-COF[Composite Cation Exchange Membrane for Zn-I2 Redox Flow Battery. **2022**, 169, 100542 0
- 76 Technologies for sustainable heat generation in food processing. 0
- 75 Composite Membranes Based on Functionalized Mesostructured Cellular Foam Particles and Sulfonated Poly(Ether Ether Sulfone) with Potential Application in Fuel Cells. **2022**, 12, 1075 0
- 74 Recent advances of metalorganic frameworks-based proton exchange membranes in fuel cell applications. **2022**, 2, 504-534 1
- 73 Energy harvesting properties of the Nafion thin films. 0

72	Theoretical and Experimental Study of Joint Osmotic and Electroosmotic Water Transfer through a Cation-Exchange Membrane. 2022 , 23, 12778	0
71	Improved performance of organic/inorganic nanocomposite membrane for bioelectricity generation and wastewater treatment in microbial fuel cells. 2023 , 332, 126167	1
70	Morphology- and Size-Selective Pd-Based Electrocatalyst for Fuel Cell Reactions. 2022 , 233-257	0
69	Superhydrophobic Carbon Functionalized by Chemical Grafting of Fluoroalkylsilane Enables an Efficient Microporous Layer for Proton-Exchange Membrane Fuel Cells.	0
68	Polymer electrolyte membrane modification in direct ethanol fuel cells: An update.	1
67	Electronic Effect-Modulated Enhancements of Proton Conductivity in Porous Organic Polymers.	0
66	Experimental Analysis of Control Strategies on Air Supply System for Proton Exchange Membrane Fuel Cells.	0
65	Bulk Solid-State Polyantimonic-Acid-Based Proton-Conducting Membranes.	0
64	Electronic Effect-Modulated Enhancements of Proton Conductivity in Porous Organic Polymers.	0
63	Polyoxometalate-polymer nanocomposites with multiplex proton transport channels for high-performance proton exchange membranes. 2022 , 109842	2
62	Tailoring proton transfer species on the membrane surface: An approach to enhance proton conductivity for polymer electrolyte membrane fuel cell. 2023 , 265, 125583	0
61	Mass Production of Dealloyed Pt ₃ Co/C Catalyst for Oxygen Reduction Catalysis in PEMFC.	0
60	Ether-free sulfonated poly(fluorene biphenyl indole) membranes and ionomer binders for proton exchange membrane fuel cells. 2023 , 556, 232418	0
59	Model Predictive Control and MPPT of Fuel Cell/ Supercapacitor Hybrid Grid-Connected System. 2022 ,	0
58	MPC and MPPT Control of Fuel Cell/Photovoltaic/Supercapacitor Hybrid Grid-Connected System. 2022 ,	0
57	Sulfonation of Polyvinylidene fluoride: Investigation of the Microstructure by { ¹ H, ¹³ C, ¹⁹ F} NMR Spectroscopy and Mechanisms. 2022 , 4, 9463-9471	0
56	Electrochemical energy storage and conversion: An overview.	0
55	Gas Diffusion Layer for Proton Exchange Membrane Fuel Cells: A Review. 2022 , 15, 8800	0

54	A Maximization of the Proton Conductivity of Sulfonated Poly(Ether Ether Ketone) with Grafted Segments Containing Multiple, Flexible Propanesulfonic Acid Groups. 2200926	0
53	Proton Conductivity and Dimensional Stability of Proton Exchange Membrane: A Dilemma Solved by Chitosan Aerogel Framework. 2022 , 141764	0
52	Recent Developments on Bioinspired Cellulose Containing Polymer Nanocomposite Cation and Anion Exchange Membranes for Fuel Cells (PEMFC and AFC). 2022 , 14, 5248	2
51	Membrane Electrode Assembly Degradation Modeling of Proton Exchange Membrane Fuel Cells: A Review. 2022 , 15, 9247	1
50	Development of polymer electrolyte membrane based on poly(Vinyl Chloride)/graphene oxide modified with zirconium phosphate for fuel cell applications. 2023 , 30,	0
49	Numerical study of PEMFC heat and mass transfer characteristics based on roughness interface thermal resistance model. 2022 ,	1
48	Machine learning for membrane design and discovery. 2022 ,	0
47	Development of polymeric electrolytes for fuel cells: Synthesis and characterization of new sulfonated polystyrene-co-acrylonitrile-co-butyl acrylate terpolymers. 2022 , 387, 116066	1
46	Enhanced Triple-Phase Interface in PEMFC by Proton Conductor Absorption on the Pt Catalyst.	0
45	Membranes for Flow Batteries. 2023 , 121-154	0
44	Review on Chitosan and Two-Dimensional MoS ₂ -Based Proton Exchange Membrane for Fuel Cell Application: Advances and Perspectives.	0
43	Thermoradiationally Modified Polytetrafluoroethylene as a Basis for Membrane Fabrication: Resistance to Hydrogen Penetration, the Effect of Ion Treatment on the Chemical Structure and Surface Morphology, Evaluation of the Track Radius. 2023 , 13, 101	0
42	Investigation of sulfonation degree and temperature on structure, thermal and membrane's properties of sulfonated poly (ether ether ketone). 2023 ,	0
41	A Rational Approach to the Ecological Transition in the Cruise Market: Technologies and Design Compromises for the Fuel Switch. 2023 , 11, 67	2
40	Bibliometric analysis for research trends and hotspots in heat and mass transfer and its management of proton exchange membrane fuel cells. 2023 , 333, 120611	0
39	Strategies for designing metal-organic frameworks with superprotonic conductivity. 2023 , 479, 214995	0
38	Quaternized Polyethersulfone (QPES) Membrane with Imidazole Functionalized Graphene Oxide (ImGO) for Alkaline Anion Exchange Fuel Cell Application. 2023 , 15, 2209	1
37	Anode modification: An approach to improve power generation in microbial fuel cells (MFCs). 2023 , 133-152	0

- 36 Composite Proton Exchange Membrane for Hydrogen Fuel Cell. **2023**, 103-165 ○
- 35 Investigation into the influence of boron nitride addition on the properties of SPEEK/PBI based electrolyte membrane. **2023**, ○
- 34 Non-Conventional Hybrid Microporous Layers for Enhanced Performance and Durability of PEM Fuel Cells. **2023**, 3, 78-91 ○
- 33 Electrospaying for membrane fabrication. **2023**, 53-80 ○
- 32 Numerical simulation of two-phase flow in gas diffusion layer and gas channel of proton exchange membrane fuel cells. **2023**, ○
- 31 The growth of biopolymers and natural earthen sources as membrane/separator materials for microbial fuel cells: A comprehensive review. **2023**, 1
- 30 Separators and membranes. **2023**, 177-211 ○
- 29 Recent progress and challenges of multi-stack fuel cell systems: Fault detection and reconfiguration, energy management strategies, and applications. **2023**, 285, 117015 ○
- 28 In-situ growth of PPy/MnOx radical quenching layer for durability enhancement of proton exchange membrane in PEMFCs. **2023**, 675, 121556 ○
- 27 Bimodal effect on mass transport of proton exchange membrane fuel cells by regulating the content of whisker-like carbon nanotubes in microporous layer. **2023**, 560, 232714 ○
- 26 Tuning the Performance of Nanofiller Reinforced Phosphorylated Chitosan-Based Proton Exchange Membrane. **2023**, 170, 024501 ○
- 25 The effect of free carboxylic acid groups on the proton conductivity of a series of UiO-66-Ce(IV) metal-organic frameworks. **2023**, 351, 112481 ○
- 24 Molecular Study of Nonequilibrium Transport Mechanism for Proton and Water in Porous Proton Exchange Membranes. **2023**, 2023, 1-13 ○
- 23 Review of fuel cell technologies and evaluation of their potential and challenges for electrified propulsion systems in commercial aviation. **7**, 43-57 ○
- 22 Dual functionalized graphene oxide incorporated with sulfonated polyolefin proton exchange membrane for fuel cell application. **2023**, 392, 116149 ○
- 21 Solid Polymer Electrolytes for Proton Exchange Membrane Fuel Cells. **2023**, 331-351 ○
- 20 Carbon NanotubeBased Membranes for Proton Exchange Membrane Fuel Cells. **2023**, 51-72 ○
- 19 Powering internet-of-things from ambient energy: a review. **2023**, 5, 022001 ○

- 18 Microwave Assisted Grafting of Polyethylene Membrane through Imidazolium and Pyridinium Moieties as Alkaline Anion Exchanger for Fuel Cell Applications. **2023**, 44, 101002 ○
- 17 Coalescing Cation Selectivity Approaches in Ionomers. **2023**, 8, 1551-1566 ○
- 16 Mesh sensitivity analysis for Proton Exchange Membrane Fuel Cells using ANSYS Fluent. **2023**, 1278, 012014 ○
- 15 Interconversion of the Eigen/Zundel Cations on Metal Surfaces. **2023**, 73-106 ○
- 14 Tuning Alkaline Anion Exchange Membranes through Crosslinking: A Review of Synthetic Strategies and Property Relationships. **2023**, 15, 1534 ○
- 13 Investigating Membrane Degradation in Low-Temperature Proton Exchange Membrane Fuel Cell (PEMFC). **2023**, 475-481 ○
- 12 Properties of nanomaterials for microbial fuel cell application. **2023**, 133-168 ○
- 11 Metal Phosphates/Phosphonates for Fuel Cells. **2023**, 193-207 ○
- 10 An Introduction. **2023**, 1-19 ○
- 9 Three-dimensional multi-phase numerical study for the effect of coolant flow field designs on water and thermal management for the large-scale PEMFCs. **2023**, ○
- 8 Scope of Hydrogen-Based Vehicles in India: A Review. **2022**, 10, 33 ○
- 7 Fuelling the sustainable future: a comparative analysis between battery electrical vehicles (BEV) and fuel cell electrical vehicles (FCEV). ○
- 6 The advances development of proton exchange membrane with high proton conductivity and balanced stability in fuel cells. ○
- 5 The effect of ZIF-8 nanoparticle concentration on microwave-assisted synthesis of poly (vinyl alcohol)-co-acrylic acid copolymeric membranes and their potential application in fuel cell. ○
- 4 Neoteric advancements in polybenzimidazole based polymer electrolytes for high-temperature proton exchange membrane fuel cells - A versatile review. **2023**, ○
- 3 Synthesis of a Cross-Linked Polymer Electrolyte Membrane with an Ultra-High Density of Sulfonic Acid Groups. ○
- 2 Advances and prospects of biodegradable polymer nanocomposites for fuel cell applications. **2023**, 599-637 ○
- 1 Preparation of hybrid nanotube proton exchange membrane for microbial fuel cell applications. **2023**, 157-177 ○

