

# Kui Jiao

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

291  
papers

12,012  
citations

55  
h-index

99  
g-index

315  
ext. papers

15,691  
ext. citations

7.5  
avg, IF

7.29  
L-index

#	Paper	IF	Citations
291	Data-driven Fault Diagnosis for PEM Fuel Cell System Using Sensor Pre-Selection Method and Artificial Neural Network Model. <i>IEEE Transactions on Energy Conversion</i> , <b>2022</b> , 1-1	5.4	0
290	Liquid transport in gas diffusion layer of proton exchange membrane fuel cells: Effects of micro-porous layer cracks. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 6247-6258	6.7	1
289	Open-Source CFD Elucidating Mechanism of 3D Pillar Electrode in Improving All-Solid-State Battery Performance.. <i>Advanced Science</i> , <b>2022</b> , e2105454	13.6	2
288	Numerical investigation of design and operating parameter effects on permeability-differentiated alkaline fuel cell with metal foam flow field. <i>Applied Thermal Engineering</i> , <b>2022</b> , 207, 118183	5.8	
287	Porous media flow field for proton exchange membrane fuel cells <b>2022</b> , 315-345		0
286	Novel structural designs of fin-tube heat exchanger for PEMFC systems based on wavy-louvered fin and vortex generator by a 3D model in OpenFOAM. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 1820-1832	6.7	1
285	Operation characteristics of open-cathode proton exchange membrane fuel cell with different cathode flow fields. <i>Sustainable Energy Technologies and Assessments</i> , <b>2022</b> , 49, 101681	4.7	0
284	Current density and temperature distribution measurement and homogeneity analysis for a large-area proton exchange membrane fuel cell. <i>Energy</i> , <b>2022</b> , 239, 121922	7.9	7
283	Combining proton and anion exchange membrane fuel cells for enhancing the overall performance and self-humidification. <i>Chemical Engineering Journal</i> , <b>2022</b> , 428, 131969	14.7	4
282	Study on Anode Catalyst Layer Configuration for Proton Exchange Membrane Fuel Cell with Enhanced Reversal Tolerance and Polarization Performance. <i>Energies</i> , <b>2022</b> , 15, 2732	3.1	
281	Validation methodology for PEM fuel cell three-dimensional simulation. <i>International Journal of Heat and Mass Transfer</i> , <b>2022</b> , 189, 122705	4.9	1
280	Coupling deep learning and multi-objective genetic algorithms to achieve high performance and durability of direct internal reforming solid oxide fuel cell. <i>Applied Energy</i> , <b>2022</b> , 315, 119046	10.7	0
279	Investigations on heat and mass transfer in gas diffusion layers of PEMFC with a gas-liquid-solid coupled model. <i>Applied Energy</i> , <b>2022</b> , 316, 118996	10.7	1
278	Convolutional neural network analysis of radiography images for rapid water quantification in PEM fuel cell. <i>Applied Energy</i> , <b>2022</b> , 321, 119352	10.7	0
277	A 3-D multiphase model of proton exchange membrane electrolyzer based on open-source CFD. <i>Digital Chemical Engineering</i> , <b>2021</b> , 100004		0
276	Correlating electrochemical active surface area with humidity and its application in proton exchange membrane fuel cell modeling. <i>Energy Conversion and Management</i> , <b>2021</b> , 251, 114982	10.6	0
275	Ni migration of Ni-YSZ electrode in solid oxide electrolysis cell: An integrated model study. <i>Journal of Power Sources</i> , <b>2021</b> , 516, 230660	8.9	4

274	Characteristics of Cold Start Behavior of PEM Fuel Cell with Metal Foam as Cathode Flow Field under Subfreezing Temperature. <i>International Journal of Green Energy</i> , <b>2021</b> , 18, 1129-1146	3	4
273	Thermal management of polymer electrolyte membrane fuel cells: A review of cooling methods, material properties, and durability. <i>Applied Energy</i> , <b>2021</b> , 286, 116496	10.7	28
272	Ex-situ measurement of thermal conductivity and swelling of nanostructured fibrous electrodes in electrochemical energy devices. <i>Thermal Science and Engineering Progress</i> , <b>2021</b> , 21, 100805	3.6	1
271	Molecular Dynamics Simulation of Diffusion and O <sub>2</sub> Dissolution in Water Using Four Water Molecular Models. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 034520	3.9	0
270	Elucidating the operating behavior of PEM fuel cell with nickel foam as cathode flow field. <i>Science China Technological Sciences</i> , <b>2021</b> , 64, 1041-1056	3.5	5
269	Pore-Scale Modeling of Anode Catalyst Layer Tolerance upon Hydrogen Sulfide Exposure in PEMFC. <i>Electrocatalysis</i> , <b>2021</b> , 12, 403-414	2.7	0
268	Deep learning from three-dimensional multiphysics simulation in operational optimization and control of polymer electrolyte membrane fuel cell for maximum power. <i>Applied Energy</i> , <b>2021</b> , 288, 116632	10.7	11
267	Polarization analysis of a micro direct methanol fuel cell stack based on Debye-Hückel ionic atmosphere theory. <i>Energy</i> , <b>2021</b> , 222, 119907	7.9	1
266	Numerical investigations of assisted heating cold start strategies for proton exchange membrane fuel cell systems. <i>Energy</i> , <b>2021</b> , 222, 119910	7.9	8
265	Polymer electrolyte membrane fuel cell and hydrogen station networks for automobiles: Status, technology, and perspectives. <i>Advances in Applied Energy</i> , <b>2021</b> , 2, 100011		23
264	Multi-objective optimization of the centrifugal compressor impeller in 130 kW PEMFC through coupling SVM with NSGA-III algorithms. <i>International Journal of Green Energy</i> , <b>2021</b> , 18, 1383-1395	3	2
263	A comprehensive three-dimensional model coupling channel multi-phase flow and electrochemical reactions in proton exchange membrane fuel cell. <i>Advances in Applied Energy</i> , <b>2021</b> , 2, 100033		9
262	Development of catalytic combustion and CO <sub>2</sub> capture and conversion technology. <i>International Journal of Coal Science and Technology</i> , <b>2021</b> , 8, 377-382	4.5	2
261	Three-dimensional multi-phase simulation of PEM fuel cell considering the full morphology of metal foam flow field. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 2978-2989	6.7	29
260	Liquid blockage and flow maldistribution of two-phase flow in two parallel thin micro-channels. <i>Applied Thermal Engineering</i> , <b>2021</b> , 182, 116127	5.8	5
259	Additive manufacturing for energy: A review. <i>Applied Energy</i> , <b>2021</b> , 282, 116041	10.7	36
258	Validated ensemble variable selection of laser-induced breakdown spectroscopy data for coal property analysis. <i>Journal of Analytical Atomic Spectrometry</i> , <b>2021</b> , 36, 111-119	3.7	3
257	Morphology and performance evolution of anode microstructure in solid oxide fuel cell: A model-based quantitative analysis. <i>Applications in Energy and Combustion Science</i> , <b>2021</b> , 5, 100016	0.8	4

256	Experimental investigation and optimization of proton exchange membrane fuel cell using different flow fields. <i>Energy</i> , <b>2021</b> , 217, 119313	7.9	11
255	Vapor condensation in reconstructed gas diffusion layers of proton exchange membrane fuel cell. <i>International Journal of Energy Research</i> , <b>2021</b> , 45, 4466-4478	4.5	5
254	Mechanism of signal uncertainty generation for laser-induced breakdown spectroscopy. <i>Frontiers of Physics</i> , <b>2021</b> , 16, 1	3.7	31
253	Cell-level modeling of proton exchange membrane fuel cell <b>2021</b> , 181-235		
252	System-level modeling of proton exchange membrane fuel cell <b>2021</b> , 265-314		
251	Towards the digitalisation of porous energy materials: evolution of digital approaches for microstructural design. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 2549-2576	35.4	10
250	A 1+1 D Multiphase Proton Exchange Membrane Fuel Cell Model for Real-Time Simulation. <i>IEEE Transactions on Transportation Electrification</i> , <b>2021</b> , 1-1	7.6	2
249	Stack-level modeling of proton exchange membrane fuel cells <b>2021</b> , 237-263		1
248	Modeling the membrane/CL delamination with the existence of CL crack under RH cycling conditions of PEM fuel cell. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 8722-8735	6.7	4
247	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> , <b>2021</b> , 46, 8640-8671	6.7	19
246	Integration of the detailed channel two-phase flow into three-dimensional multi-phase simulation of proton exchange membrane electrolyzer cell. <i>International Journal of Green Energy</i> , <b>2021</b> , 18, 541-553		2
245	Investigation of metal foam porosity and wettability on fuel cell water management by Electrochemical Impedance Spectroscopy. <i>International Journal of Green Energy</i> , <b>2021</b> , 18, 708-719	3	4
244	An Artificial Intelligence Solution for Predicting Short-Term Degradation Behaviors of Proton Exchange Membrane Fuel Cell. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 6348	2.6	1
243	Designing the next generation of proton-exchange membrane fuel cells. <i>Nature</i> , <b>2021</b> , 595, 361-369	50.4	152
242	Experimental investigation of liquid water in flow field of proton exchange membrane fuel cell by combining X-ray with EIS technologies. <i>Science China Technological Sciences</i> , <b>2021</b> , 64, 2153	3.5	0
241	Evaluation of femtosecond laser-induced breakdown spectroscopy system as an offline coal analyzer. <i>Scientific Reports</i> , <b>2021</b> , 11, 15968	4.9	1
240	Reconstruction and optimization of LSCF cathode microstructure based on Kinetic Monte Carlo method and Lattice Boltzmann method. <i>Chemical Engineering Journal</i> , <b>2021</b> , 132144	14.7	1
239	Numerical investigations of vapor condensation and water transport in gas diffusion layers of PEMFC. <i>International Journal of Heat and Mass Transfer</i> , <b>2021</b> , 177, 121543	4.9	1

238	Numerical study on the performance of the H-shaped air-breathing microfluidic fuel cell stack. <i>Electrochimica Acta</i> , <b>2021</b> , 392, 139024	6.7	4
237	Material distortion in laser-based additive manufacturing of fuel cell component: Three-dimensional numerical analysis. <i>Additive Manufacturing</i> , <b>2021</b> , 46, 102188	6.1	1
236	Investigation of a cost-effective strategy for polymer electrolyte membrane fuel cells: High power density operation. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 35448-35458	6.7	3
235	Transport properties of gas diffusion layer of proton exchange membrane fuel cells: Effects of compression. <i>International Journal of Heat and Mass Transfer</i> , <b>2021</b> , 178, 121608	4.9	7
234	Numerical investigation on the feasibility of metal foam as flow field in alkaline anion exchange membrane fuel cell. <i>Applied Energy</i> , <b>2021</b> , 302, 117555	10.7	4
233	Enabling real-time optimization of dynamic processes of proton exchange membrane fuel cell: Data-driven approach with semi-recurrent sliding window method. <i>Applied Energy</i> , <b>2021</b> , 303, 117659	10.7	6
232	Multiphase transport modeling <b>2021</b> , 121-180		
231	Oxygen Permeation Resistances and Routes in Nanoscale Ionomer Thin Film on Platinum Surface. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 014511	3.9	4
230	Experimental characterization and diagnostics <b>2021</b> , 67-120		
229	Transport phenomena in proton exchange membrane fuel cell <b>2021</b> , 25-65		1
228	Oxygen Transport Routes in Ionomer Film on Polyhedral Platinum Nanoparticles. <i>ACS Nano</i> , <b>2020</b> ,	16.7	6
227	pH-differential design and operation of electrochemical and photoelectrochemical systems with bipolar membrane. <i>Applied Energy</i> , <b>2020</b> , 268, 115053	10.7	10
226	Two-Phase Flow in Porous Electrodes of Proton Exchange Membrane Fuel Cell. <i>Transactions of Tianjin University</i> , <b>2020</b> , 26, 197-207	2.9	8
225	3D lattice Boltzmann modeling of droplet motion in PEM fuel cell channel with realistic GDL microstructure and fluid properties. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 12476-12488	6.7	22
224	Three-dimensional modeling of flow field optimization for co-electrolysis solid oxide electrolysis cell. <i>Applied Thermal Engineering</i> , <b>2020</b> , 172, 114959	5.8	16
223	Multi-functional anodes boost the transient power and durability of proton exchange membrane fuel cells. <i>Nature Communications</i> , <b>2020</b> , 11, 1191	17.4	36
222	Two-dimensional simulation of cold start processes for proton exchange membrane fuel cell with different hydrogen flow arrangements. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 17795-17812	6.7	11
221	Fundamentals, materials, and machine learning of polymer electrolyte membrane fuel cell technology. <i>Energy and AI</i> , <b>2020</b> , 1, 100014	12.6	91

220	Liquid Water Transport Behavior at GDL-Channel Interface of a Wave-Like Channel. <i>Energies</i> , <b>2020</b> , 13, 2726	3.1	7
219	Three-dimensional Modeling and Performance Optimization of Proton Conducting Solid Oxide Electrolysis Cell?. <i>Fuel Cells</i> , <b>2020</b> , 20, 701-711	2.9	4
218	An Intelligent Approach for Contact Pressure Optimization of PEM Fuel Cell Gas Diffusion Layers. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 4194	2.6	7
217	Investigation of performance heterogeneity of PEMFC stack based on 1+1D and flow distribution models. <i>Energy Conversion and Management</i> , <b>2020</b> , 207, 112502	10.6	14
216	Three-dimensional simulation of solid oxide fuel cell with metal foam as cathode flow distributor. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 6897-6911	6.7	11
215	Numerical investigations of the flow distributions with a transient three-dimensional multi-component ejector model. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2020</b> , 721, 012012	0.4	
214	Water transport in the gas diffusion layer of proton exchange membrane fuel cell under vibration conditions. <i>International Journal of Energy Research</i> , <b>2020</b> , 44, 4438-4448	4.5	12
213	AI-based optimization of PEM fuel cell catalyst layers for maximum power density via data-driven surrogate modeling. <i>Energy Conversion and Management</i> , <b>2020</b> , 205, 112460	10.6	55
212	Effects of surface wettability on two-phase flow in the compressed gas diffusion layer microstructures. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 151, 119370	4.9	17
211	Life cycle assessment of fuel cell, electric and internal combustion engine vehicles under different fuel scenarios and driving mileages in China. <i>Energy</i> , <b>2020</b> , 198, 117365	7.9	43
210	Multi-physics-resolved digital twin of proton exchange membrane fuel cells with a data-driven surrogate model. <i>Energy and AI</i> , <b>2020</b> , 1, 100004	12.6	61
209	Pore-Scale Investigation of the Effect of Micro-Porous Layer on Water Transport in Proton Exchange Membrane Fuel Cell. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 144504	3.9	9
208	BD+1D modeling approach toward large-scale PEM fuel cell simulation and partitioned optimization study on flow field. <i>ETransportation</i> , <b>2020</b> , 6, 100090	12.7	11
207	Investigation of mechanical vibration effect on proton exchange membrane fuel cell cold start. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 14528-14538	6.7	6
206	Investigation of current density spatial distribution in PEM fuel cells using a comprehensively validated multi-phase non-isothermal model. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 150, 119294	4.9	28
205	Oriented proton-conductive nano-sponge-facilitated polymer electrolyte membranes. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 297-309	35.4	30
204	Effect of anisotropy in cathode diffusion layers on direct methanol fuel cell. <i>Applied Thermal Engineering</i> , <b>2020</b> , 165, 114589	5.8	4
203	Two-dimensional multi-physics modeling of porous transport layer in polymer electrolyte membrane electrolyzer for water splitting. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 32984-32994	6.7	15

202	Charging Infrastructure Intellectualization and Future of Different Automotive Powertrains. <i>Joule</i> , <b>2020</b> , 4, 1634-1636	27.8	2
201	Photo-driven growth of a monolayer of platinum spherical-nanocrowns uniformly coated on a membrane toward fuel cell applications. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 23284-23292	13	7
200	Evolution of Microstructure, Residual Stress, and Tensile Properties of Additively Manufactured Stainless Steel Under Heat Treatments. <i>Jom</i> , <b>2020</b> , 72, 4167-4177	2.1	7
199	Liquid droplet detachment and dispersion in metal foam flow field of polymer electrolyte membrane fuel cell. <i>Journal of Power Sources</i> , <b>2020</b> , 480, 229150	8.9	16
198	De Novo Design of Covalent Organic Framework Membranes toward Ultrafast Anion Transport. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001284	24	59
197	Gas distribution and droplet removal of metal foam flow field for proton exchange membrane fuel cells. <i>Applied Energy</i> , <b>2020</b> , 280, 116011	10.7	6
196	Optimization of porous media flow field for proton exchange membrane fuel cell using a data-driven surrogate model. <i>Energy Conversion and Management</i> , <b>2020</b> , 226, 113513	10.6	11
195	Three-dimension simulation of two-phase flows in a thin gas flow channel of PEM fuel cell using a volume of fluid method. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 29730-29737	6.7	9
194	Materials, technological status, and fundamentals of PEM fuel cells A review. <i>Materials Today</i> , <b>2020</b> , 32, 178-203	21.8	300
193	Structure optimization and thermal field analysis of biogas derived methane fueled Solid Oxide Fuel Cell. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2020</b> , 721, 012022	0.4	
192	Numerical investigation of ejector transient characteristics for a 130-kW PEMFC system. <i>International Journal of Energy Research</i> , <b>2020</b> , 44, 3697-3710	4.5	10
191	Experimental investigation of the effect of membrane water content on PEM fuel cell cold start. <i>Energy Procedia</i> , <b>2019</b> , 158, 1724-1729	2.3	17
190	Effect of operating conditions on performance of proton exchange membrane fuel cell with anode recirculation. <i>Energy Procedia</i> , <b>2019</b> , 158, 1829-1834	2.3	6
189	Lattice Boltzmann simulation of oxygen diffusion and electrochemical reaction inside catalyst layer of PEM fuel cells. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 143, 118538	4.9	9
188	Three-dimensional simulation of a new cooling strategy for proton exchange membrane fuel cell stack using a non-isothermal multiphase model. <i>Applied Energy</i> , <b>2019</b> , 255, 113865	10.7	37
187	Primary breakup of power-law biofuel sprays in pressurized gaseous crossflow. <i>Fuel</i> , <b>2019</b> , 258, 116061	7.1	2
186	Effects of operating conditions on water and heat management by a transient multi-dimensional PEMFC system model. <i>Energy</i> , <b>2019</b> , 183, 462-476	7.9	53
185	A dot matrix and sloping baffle cathode flow field of proton exchange membrane fuel cell. <i>Journal of Power Sources</i> , <b>2019</b> , 434, 226741	8.9	33



184	Effects of Side Chain Length on the Structure, Oxygen Transport and Thermal Conductivity for Perfluorosulfonic Acid Membrane: Molecular Dynamics Simulation. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, F511-F518	3.9	15
183	Two-phase flow and oxygen transport in the perforated gas diffusion layer of proton exchange membrane fuel cell. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 139, 58-68	4.9	29
182	Comparative analysis of two-phase flow in sinusoidal channel of different geometric configurations with application to PEMFC. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 13807-13819	6.7	39
181	Direct numerical simulation of droplet deformation in turbulent flows with different velocity profiles. <i>Fuel</i> , <b>2019</b> , 247, 302-314	7.1	17
180	Comfort index evaluating the water and thermal characteristics of proton exchange membrane fuel cell. <i>Energy Conversion and Management</i> , <b>2019</b> , 185, 496-507	10.6	12
179	Numerical analysis of operating conditions effects on PEMFC with anode recirculation. <i>Energy</i> , <b>2019</b> , 173, 844-856	7.9	32
178	Numerical simulation for metal foam two-phase flow field of proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6229-6244	6.7	44
177	Effects of needle orientation and gas velocity on water transport and removal in a modified PEMFC gas flow channel having a hydrophilic needle. <i>International Journal of Energy Research</i> , <b>2019</b> , 43, 2538-2549	4.5	29
176	Analysis of single- and two-phase flow characteristics of 3-D fine mesh flow field of proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , <b>2019</b> , 438, 226995	8.9	46
175	Two-phase flow in compressed gas diffusion layer: Finite element and volume of fluid modeling. <i>Journal of Power Sources</i> , <b>2019</b> , 437, 226933	8.9	27
174	Pore-scale investigation of catalyst layer ingredient and structure effect in proton exchange membrane fuel cell. <i>Applied Energy</i> , <b>2019</b> , 253, 113561	10.7	22
173	Lattice Boltzmann simulation of liquid water transport inside and at interface of gas diffusion and micro-porous layers of PEM fuel cells. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 140, 1074-1090	4.9	33
172	Mechanism of Water Content on the Electrochemical Surface Area of the Catalyst Layer in the Proton Exchange Membrane Fuel Cell. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 6409-6413	6.4	9
171	A comprehensive proton exchange membrane fuel cell system model integrating various auxiliary subsystems. <i>Applied Energy</i> , <b>2019</b> , 256, 113959	10.7	19
170	Investigation of two-phase flow in the compressed gas diffusion layer microstructures. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 26498-26516	6.7	23
169	Three-dimensional multi-phase model of PEM fuel cell coupled with improved agglomerate sub-model of catalyst layer. <i>Energy Conversion and Management</i> , <b>2019</b> , 199, 112051	10.6	30
168	Experimental investigation on the performance and durability of hydrogen AEMFC with electrochemical impedance spectroscopy. <i>International Journal of Energy Research</i> , <b>2019</b> , 43, 8522-8535	4.5	8
167	Global sensitivity analysis of uncertain parameters based on 2D modeling of solid oxide fuel cell. <i>International Journal of Energy Research</i> , <b>2019</b> , 43, 8697-8715	4.5	1



166	Numerical Investigation of Liquid Water Transport Dynamics in Novel Hybrid Sinusoidal Flow Channel Designs for PEMFC. <i>Energies</i> , <b>2019</b> , 12, 4030	3.1	8
165	Modeling of Proton Exchange Membrane Fuel Cell System Considering Various Auxiliary Subsystems. <i>Springer Proceedings in Energy</i> , <b>2019</b> , 18-33	0.2	2
164	Magnetic field alignment of stable proton-conducting channels in an electrolyte membrane. <i>Nature Communications</i> , <b>2019</b> , 10, 842	17.4	70
163	Capacity loss of non-aqueous Li-Air battery due to insoluble product formation: Approximate solution and experimental validation. <i>Materials Today Energy</i> , <b>2019</b> , 14, 100360	7	4
162	Two-phase frictional pressure drop in a thin mixed-wettability microchannel. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 128, 649-667	4.9	9
161	A lattice Boltzmann model for multi-component two-phase gas-liquid flow with realistic fluid properties. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 128, 536-549	4.9	14
160	Design of Pt-C/Fe-N-S-C cathode dual catalyst layers for proton exchange membrane fuel cells under low humidity. <i>Electrochimica Acta</i> , <b>2019</b> , 296, 450-457	6.7	19
159	Large-scale multi-phase simulation of proton exchange membrane fuel cell. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 130, 555-563	4.9	49
158	Modelling of effect of pressure on co-electrolysis of water and carbon dioxide in solid oxide electrolysis cell. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 3456-3469	6.7	6
157	On the water transport behavior and phase transition mechanisms in cold start operation of PEM fuel cell. <i>Applied Energy</i> , <b>2019</b> , 233-234, 776-788	10.7	62
156	Sensitivity analysis of uncertain parameters based on an improved proton exchange membrane fuel cell analytical model. <i>Energy Conversion and Management</i> , <b>2018</b> , 164, 639-654	10.6	41
155	Experimental and analytical analysis of polarization and water transport behaviors of hydrogen alkaline membrane fuel cell. <i>Journal of Power Sources</i> , <b>2018</b> , 382, 1-12	8.9	14
154	Modeling of passive vapor feed alkaline membrane direct methanol fuel cell. <i>Applied Thermal Engineering</i> , <b>2018</b> , 131, 920-932	5.8	8
153	A three-dimensional multi-phase numerical model of DMFC utilizing Eulerian-Eulerian model. <i>Applied Thermal Engineering</i> , <b>2018</b> , 132, 140-153	5.8	19
152	Multi-phase models for water and thermal management of proton exchange membrane fuel cell: A review. <i>Journal of Power Sources</i> , <b>2018</b> , 391, 120-133	8.9	157
151	Mathematical Modeling of Alkaline Anion Exchange Membrane Fuel Cells. <i>Lecture Notes in Energy</i> , <b>2018</b> , 169-215	0.4	2
150	Cold start of proton exchange membrane fuel cell. <i>Progress in Energy and Combustion Science</i> , <b>2018</b> , 64, 29-61	33.6	122
149	Investigation of the effect of micro-porous layer on PEM fuel cell cold start operation. <i>Renewable Energy</i> , <b>2018</b> , 117, 125-134	8.1	48

148	Numerical simulation of two-phase cross flow in the gas diffusion layer microstructure of proton exchange membrane fuel cells. <i>International Journal of Energy Research</i> , <b>2018</b> , 42, 802-816	4.5	39
147	Three-Dimensional Simulation of Water Management for High-Performance Proton Exchange Membrane Fuel Cell. <i>SAE International Journal of Alternative Powertrains</i> , <b>2018</b> , 7, 233-247	2	11
146	Optimization design of the cathode flow channel for proton exchange membrane fuel cells. <i>Energy Conversion and Management</i> , <b>2018</b> , 171, 1813-1821	10.6	72
145	Multi-component multi-phase lattice Boltzmann modeling of droplet coalescence in flow channel of fuel cell. <i>Journal of Power Sources</i> , <b>2018</b> , 393, 83-91	8.9	29
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