

Biao Zhou

List of Publications by Year in descending order

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47
papers

1,840
citations

279798

23
h-index

315739

38
g-index

47
all docs

47
docs citations

47
times ranked

1069
citing authors

#	ARTICLE	IF	CITATIONS
1	Water behavior in serpentine micro-channel for proton exchange membrane fuel cell cathode. Journal of Power Sources, 2005, 152, 131-145.	7.8	158
2	A general model of proton exchange membrane fuel cell. Journal of Power Sources, 2008, 182, 197-222.	7.8	153
3	Liquid water transport in straight micro-parallel-channels with manifolds for PEM fuel cell cathode. Journal of Power Sources, 2006, 157, 226-243.	7.8	121
4	Liquid water transport in parallel serpentine channels with manifolds on cathode side of a PEM fuel cell stack. Journal of Power Sources, 2006, 154, 124-137.	7.8	114
5	Experimental and mechanistic description of merging and bouncing in head-on binary droplet collision. Journal of Applied Physics, 2008, 103, .	2.5	110
6	Water and thermal management for Ballard PEM fuel cell stack. Journal of Power Sources, 2005, 147, 184-195.	7.8	103
7	Diagnosis of PEM fuel cell stack dynamic behaviors. Journal of Power Sources, 2008, 177, 83-95.	7.8	76
8	Numerical simulation and experimental validation of liquid water behaviors in a proton exchange membrane fuel cell cathode with serpentine channels. Journal of Power Sources, 2010, 195, 7302-7315.	7.8	69
9	Effects of electrode wettabilities on liquid water behaviours in PEM fuel cell cathode. Journal of Power Sources, 2008, 175, 106-119.	7.8	68
10	A generalized numerical model for liquid water in a proton exchange membrane fuel cell with interdigitated design. Journal of Power Sources, 2009, 193, 665-683.	7.8	68
11	Innovative gas diffusion layers and their water removal characteristics in PEM fuel cell cathode. Journal of Power Sources, 2007, 169, 296-314.	7.8	64
12	Water and thermal management in a single PEM fuel cell with non-uniform stack temperature. Journal of Power Sources, 2006, 161, 143-159.	7.8	61
13	Fundamental understanding of liquid water effects on the performance of a PEMFC with serpentine-parallel channels. Electrochimica Acta, 2009, 54, 2137-2154.	5.2	61
14	An experimental and analytical comparison study of power management methodologies of fuel cell battery hybrid vehicles. Journal of Power Sources, 2011, 196, 3271-3279.	7.8	55
15	Liquid water flooding process in proton exchange membrane fuel cell cathode with straight parallel channels and porous layer. Journal of Power Sources, 2011, 196, 1776-1794.	7.8	50
16	Flame behavior and flame-induced flow in a closed rectangular duct with a 90° bend. International Journal of Thermal Sciences, 2006, 45, 457-474.	4.9	49
17	Water and pressure effects on a single PEM fuel cell. Journal of Power Sources, 2006, 155, 190-202.	7.8	49
18	A numerical investigation on multi-phase transport phenomena in a proton exchange membrane fuel cell stack. Journal of Power Sources, 2010, 195, 5278-5291.	7.8	47

#	ARTICLE	IF	CITATIONS
19	Comparisons and validations of contact angle models. International Journal of Hydrogen Energy, 2018, 43, 6364-6378.	7.1	39
20	Modeling and control of a portable proton exchange membrane fuel cell battery power system. Journal of Power Sources, 2011, 196, 8413-8423.	7.8	30
21	Liquid water transport in PEMFC cathode with symmetrical biomimetic flow field design based on Murray's law. International Journal of Hydrogen Energy, 2021, 46, 21059-21074.	7.1	28
22	Bubble behaviors in direct methanol fuel cell anode with parallel design. International Journal of Hydrogen Energy, 2017, 42, 20201-20215.	7.1	27
23	Accelerated Numerical Test of Liquid Behavior Across Gas Diffusion Layer in Proton Exchange Membrane Fuel Cell Cathode. Journal of Fuel Cell Science and Technology, 2008, 5, .	0.8	25
24	Liquid water flooding in a proton exchange membrane fuel cell cathode with an interdigitated design. International Journal of Energy Research, 2011, 35, 1292-1311.	4.5	23
25	Carbon-embedded mesoporous Nb-doped TiO ₂ nanofibers as catalyst support for the oxygen reduction reaction in PEM fuel cells. Journal of Materials Chemistry A, 2016, 4, 6540-6552.	10.3	23
26	Composite-supported Pt catalyst and electrospayed cathode catalyst layer for polymer electrolyte membrane fuel cell. International Journal of Energy Research, 2017, 41, 1626-1641.	4.5	20
27	Dynamic contact angle effects on gas-liquid transport phenomena in proton exchange membrane fuel cell cathode with parallel design. International Journal of Energy Research, 2018, 42, 4439-4457.	4.5	18
28	Droplet behaviors on inclined surfaces with dynamic contact angle. International Journal of Hydrogen Energy, 2020, 45, 29848-29860.	7.1	16
29	Numerical study of bubble generation and transport in a serpentine channel with a T-junction. International Journal of Hydrogen Energy, 2014, 39, 2325-2333.	7.1	15
30	Air-liquid water transport phenomena in a proton exchange membrane fuel cell cathode with a leaf-like flow field design. International Journal of Energy Research, 2021, 45, 20285-20301.	4.5	14
31	Investigation of liquid water behaviors inside a PEMFC cathode with a leaf-like biomimetic flow field design based on Murray's Law. International Journal of Green Energy, 2022, 19, 577-591.	3.8	13
32	Along-channel mathematical modelling for proton exchange membrane fuel cells. International Journal of Energy Research, 2005, 29, 1051-1071.	4.5	12
33	Oxidative Treatment to Improve Coating and Electrochemical Stability of Carbon Fiber Paper with Niobium Doped Titanium Dioxide Sols for Potential Applications in Fuel Cells. Electrochimica Acta, 2014, 132, 347-355.	5.2	9
34	Numerical study of flow regimes in microchannel with dynamic contact angle. International Journal of Hydrogen Energy, 2020, 45, 29782-29790.	7.1	9
35	Dynamic contact angle effects on gas-liquid behaviors in the cathode of proton exchange membrane fuel cell with stirred tank reactor design. International Journal of Green Energy, 2019, 16, 386-400.	3.8	8
36	Improvement and further investigation on Hoffman-function-based dynamic contact angle model. International Journal of Hydrogen Energy, 2019, 44, 16898-16908.	7.1	8

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37	Technical challenges in numerical simulation of droplet behaviors with dynamic contact angle in microchannels. International Journal of Energy Research, 2019, 43, 4828-4839.	4.5	8
38	Numerical Investigation of HCCI Combustion in an IDI Type Diesel Engine Fueled with Isooctane. , 0, , .		6
39	Power Management Methodologies for Fuel Cell-Battery Hybrid Vehicles. , 0, , .		5
40	Numerical Study of Droplet Impact on Inclined Surface: Viscosity Effects. ECS Transactions, 2018, 83, 127-136.	0.5	5
41	A 3D Single-Phase Numerical Model for a PEMFC Stack. , 2009, , .		2
42	Liquid Water Effects on the Performance of a PEMFC With Serpentine-Parallel Channels. , 2008, , .		1
43	Liquid Water Removal Process in PEM Fuel Cell Cathode. , 2009, , .		0
44	Power Management of a Portable Proton Exchange Membrane Fuel Cell-Battery Power System. , 2010, , .		0
45	3-D Volume of Fluid Model for Proton Exchange Membrane Fuel Cells With Phase Change Effects. , 2010, , .		0
46	Effect of Reducing Agent on the Dispersion of Pt Nanoparticles on Electrospun Nb _{0.1} Ti _{0.9} O ₂ Nanofibers. Materials Research Society Symposia Proceedings, 2013, 1542, 1.	0.1	0
47	Design and Optimization of a Power Management Strategy for a Fuel Cell-Battery Hybrid Vehicle. , 2010, , .		0