

Zhiqiang Niu

List of Publications by Year in descending order

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Version: 2024-02-01

28
papers

1,420
citations

331538

21
h-index

526166

27
g-index

28
all docs

28
docs citations

28
times ranked

740
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-phase simulation of proton exchange membrane fuel cell with 3D fine mesh flow field. International Journal of Energy Research, 2018, 42, 4697-4709.	2.2	158
2	Optimization design of the cathode flow channel for proton exchange membrane fuel cells. Energy Conversion and Management, 2018, 171, 1813-1821.	4.4	131
3	Investigation and design optimization of exhaust-based thermoelectric generator system for internal combustion engine. Energy Conversion and Management, 2014, 85, 85-101.	4.4	116
4	Two-phase flow in the mixed-wettability gas diffusion layer of proton exchange membrane fuel cells. Applied Energy, 2018, 232, 443-450.	5.1	87
5	Analysis of single- and two-phase flow characteristics of 3-D fine mesh flow field of proton exchange membrane fuel cells. Journal of Power Sources, 2019, 438, 226995.	4.0	77
6	Numerical simulation for metal foam two-phase flow field of proton exchange membrane fuel cell. International Journal of Hydrogen Energy, 2019, 44, 6229-6244.	3.8	72
7	Numerical investigation of innovative 3D cathode flow channel in proton exchange membrane fuel cell. International Journal of Energy Research, 2018, 42, 3328-3338.	2.2	70
8	Recent progress of gas diffusion layer in proton exchange membrane fuel cell: Two-phase flow and material properties. International Journal of Hydrogen Energy, 2021, 46, 8640-8671.	3.8	67
9	Numerical simulation of two-phase cross flow in the gas diffusion layer microstructure of proton exchange membrane fuel cells. International Journal of Energy Research, 2018, 42, 802-816.	2.2	59
10	Two-phase flow and oxygen transport in the perforated gas diffusion layer of proton exchange membrane fuel cell. International Journal of Heat and Mass Transfer, 2019, 139, 58-68.	2.5	59
11	Two-Phase Flow Dynamics in the Gas Diffusion Layer of Proton Exchange Membrane Fuel Cells: Volume of Fluid Modeling and Comparison with Experiment. Journal of the Electrochemical Society, 2018, 165, F613-F620.	1.3	58
12	Effect of cooling design on the characteristics and performance of thermoelectric generator used for internal combustion engine. Energy Conversion and Management, 2015, 101, 9-18.	4.4	56
13	Two-phase flow in compressed gas diffusion layer: Finite element and volume of fluid modeling. Journal of Power Sources, 2019, 437, 226933.	4.0	49
14	Elucidating modeling aspects of thermoelectric generator. International Journal of Heat and Mass Transfer, 2015, 85, 12-32.	2.5	47
15	Investigation of two-phase flow in the compressed gas diffusion layer microstructures. International Journal of Hydrogen Energy, 2019, 44, 26498-26516.	3.8	38
16	Power and efficiency factors for comprehensive evaluation of thermoelectric generator materials. International Journal of Heat and Mass Transfer, 2016, 93, 1034-1037.	2.5	37
17	Effects of surface wettability on two-phase flow in the compressed gas diffusion layer microstructures. International Journal of Heat and Mass Transfer, 2020, 151, 119370.	2.5	37
18	Towards the digitalisation of porous energy materials: evolution of digital approaches for microstructural design. Energy and Environmental Science, 2021, 14, 2549-2576.	15.6	34

#	ARTICLE	IF	CITATIONS
19	Direct numerical simulation of low Reynolds number turbulent air-water transport in fuel cell flow channel. Science Bulletin, 2017, 62, 31-39.	4.3	31
20	Water transport in the gas diffusion layer of proton exchange membrane fuel cell under vibration conditions. International Journal of Energy Research, 2020, 44, 4438-4448.	2.2	27
21	Direct numerical simulation of two-phase turbulent flow in fuel cell flow channel. International Journal of Hydrogen Energy, 2016, 41, 3147-3152.	3.8	26
22	Gas distribution and droplet removal of metal foam flow field for proton exchange membrane fuel cells. Applied Energy, 2020, 280, 116011.	5.1	20
23	Direct numerical simulation of near nozzle diesel jet evolution with full temporal-spatial turbulence inlet profile. Fuel, 2017, 207, 22-32.	3.4	19
24	Investigating the In-/Through-Plane Effective Diffusivities of Dry and Partially-Saturated Gas Diffusion Layers. Journal of the Electrochemical Society, 2018, 165, F986-F993.	1.3	15
25	Liquid Water Transport Behavior at GDL-Channel Interface of a Wave-Like Channel. Energies, 2020, 13, 2726.	1.6	13
26	The future of sustainable chemistry and process: Convergence of artificial intelligence, data and hardware. Energy and AI, 2020, 2, 100036.	5.8	12
27	Analysis of compression in uniform and non-uniform GDL microstructures on water transport. International Journal of Green Energy, 2022, 19, 1389-1403.	2.1	5
28	Design Optimization of Automobile Exhaust Thermoelectric Generator for Waste Heat Recovery. , 2014, , ,		0