Zhiqiang Niu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2021871/publications.pdf

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	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
2	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
3	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
4	The future of sustainable chemistry and process: Convergence of artificial intelligence, data and hardware. Energy and AI, 2020, 2, 100036.	5.8	12
5	Gas distribution and droplet removal of metal foam flow field for proton exchange membrane fuel cells. Applied Energy, 2020, 280, 116011.	5.1	20
6	Liquid Water Transport Behavior at GDL-Channel Interface of a Wave-Like Channel. Energies, 2020, 13, 2726.	1.6	13
7	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
8	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
9	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
10	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
11	Investigation of two-phase flow in the compressed gas diffusion layer microstructures. International Journal of Hydrogen Energy, 2019, 44, 26498-26516.	3.8	38
12	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
13	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
14	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
15	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
16	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
17	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
18	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

#	Article	IF	Citations
19	Optimization design of the cathode flow channel for proton exchange membrane fuel cells. Energy Conversion and Management, 2018, 171, 1813-1821.	4.4	131
20	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
21	Direct numerical simulation of near nozzle diesel jet evolution with full temporal-spatial turbulence inlet profile. Fuel, 2017, 207, 22-32.	3.4	19
22	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
23	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
24	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
25	Elucidating modeling aspects of thermoelectric generator. International Journal of Heat and Mass Transfer, 2015, 85, 12-32.	2.5	47
26	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
27	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
28	Design Optimization of Automobile Exhaust Thermoelectric Generator for Waste Heat Recovery. , 2014, , .		0