

Zaoxiao Zhang

List of Publications by Year in descending order

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Version: 2024-02-01

30
papers

1,230
citations

331670

21
h-index

454955

30
g-index

30
all docs

30
docs citations

30
times ranked

537
citing authors

#	ARTICLE	IF	CITATIONS
1	Combined biomass gasification, SOFC, IC engine, and waste heat recovery system for power and heat generation: Energy, exergy, exergoeconomic, environmental (4E) evaluations. <i>Applied Energy</i> , 2020, 279, 115794.	10.1	153
2	Magnesium based metal hydride reactor incorporating helical coil heat exchanger: Simulation study and optimal design. <i>Applied Energy</i> , 2014, 130, 712-722.	10.1	109
3	An optimization study on the finned tube heat exchanger used in hydride hydrogen storage system – analytical method and numerical simulation. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 16078-16092.	7.1	88
4	Optimal design of metal hydride reactors based on CFD – Taguchi combined method. <i>Energy Conversion and Management</i> , 2013, 65, 322-330.	9.2	83
5	Three-dimensional modeling and sensitivity analysis of multi-tubular metal hydride reactors. <i>Applied Thermal Engineering</i> , 2013, 52, 97-108.	6.0	75
6	Optimization of heat transfer device and analysis of heat & mass transfer on the finned multi-tubular metal hydride tank. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 13583-13595.	7.1	58
7	Design optimization and sensitivity analysis of the radiation mini-channel metal hydride reactor. <i>Energy</i> , 2019, 173, 443-456.	8.8	54
8	Achieving high-efficiency conversion and poly-generation of cooling, heating, and power based on biomass-fueled SOFC hybrid system: Performance assessment and multi-objective optimization. <i>Energy Conversion and Management</i> , 2021, 240, 114245.	9.2	53
9	Thermo-economic modeling and analysis of an NG-fueled SOFC-WGS-TSA-PEMFC hybrid energy conversion system for stationary electricity power generation. <i>Energy</i> , 2020, 192, 116613.	8.8	50
10	Performance analysis of a novel SOFC-HCCI engine hybrid system coupled with metal hydride reactor for H ₂ addition by waste heat recovery. <i>Energy Conversion and Management</i> , 2019, 191, 119-131.	9.2	48
11	High-efficiency conversion of natural gas fuel to power by an integrated system of SOFC, HCCI engine, and waste heat recovery: Thermodynamic and thermo-economic analyses. <i>Fuel</i> , 2020, 275, 117883.	6.4	47
12	Design and performance simulation of the spiral mini-channel reactor during H ₂ absorption. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 13490-13505.	7.1	43
13	Performance simulation and experimental confirmation of a mini-channel metal hydrides reactor. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 15242-15253.	7.1	38
14	A continuous hydrogen absorption/desorption model for metal hydride reactor coupled with PCM as heat management and its application in the fuel cell power system. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 28087-28099.	7.1	37
15	Multi-level configuration and optimization of a thermal energy storage system using a metal hydride pair. <i>Applied Energy</i> , 2018, 217, 25-36.	10.1	36
16	Simulation study on the reaction process based single stage metal hydride thermal compressor. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 321-328.	7.1	34
17	Optimal design methodology of metal hydride reactors for thermochemical heat storage. <i>Energy Conversion and Management</i> , 2018, 174, 239-247.	9.2	33
18	Dynamic modeling and operation strategy of natural gas fueled SOFC-Engine hybrid power system with hydrogen addition by metal hydride for vehicle applications. <i>ETransportation</i> , 2020, 5, 100074.	14.8	27

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19	Study of an autothermal-equilibrium metal hydride reactor by reaction heat recovery as hydrogen source for the application of fuel cell power system. <i>Energy Conversion and Management</i> , 2020, 213, 112864.	9.2	27
20	Optimum output temperature setting and an improved bed structure of metal hydride hydrogen storage reactor for thermal energy storage. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19313-19325.	7.1	25
21	Multi-physics field modeling of biomass gasification syngas fueled solid oxide fuel cell. <i>Journal of Power Sources</i> , 2021, 512, 230470.	7.8	21
22	Construction of a transient multi-physics model of solid oxide fuel cell fed by biomass syngas considering the carbon deposition and temperature effect. <i>Chemical Engineering Journal</i> , 2022, 442, 136159.	12.7	17
23	Ni coarsening and performance attenuation prediction of biomass syngas fueled SOFC by combining multi-physics field modeling and artificial neural network. <i>Applied Energy</i> , 2022, 322, 119508.	10.1	15
24	Numerical modeling and performance comparison of high-temperature metal hydride reactor equipped with bakery system for solar thermal energy storage. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 31612-31631.	7.1	13
25	Optimal design of disc mini-channel metal hydride reactor with high hydrogen storage efficiency. <i>Applied Energy</i> , 2022, 308, 118389.	10.1	13
26	Study of a metal hydride based thermal energy storage system using multi-phase heat exchange for the application of concentrated solar power system. <i>International Journal of Hydrogen Energy</i> , 2020, . .	7.1	12
27	CO2 capture intensified by solvents with metal hydride. <i>Fuel Processing Technology</i> , 2021, 218, 106859.	7.2	10
28	Numerical investigation of metal hydride heat storage reactor with two types multiple heat transfer tubes structures. <i>Energy</i> , 2022, 253, 124142.	8.8	8
29	Light to enhance CO2 capture by a flexible heterostructure. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021, 159, 108210.	3.6	2
30	Carbon dioxide desorption intensified by metal atom. <i>International Journal of Energy Research</i> , 2022, 46, 1419-1430.	4.5	1