Ning Mao

List of Publications by Year
in descending order

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70	2,396	172386	206029
papers	citations	29	48
		h-index	g-index

70	70	70	1327
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Review on building energy performance improvement using phase change materials. Energy and Buildings, 2018, 158, 776-793.	3.1	290
2	Review on improvement for air source heat pump units during frosting and defrosting. Applied Energy, 2018, 211, 1150-1170.	5.1	245
3	Application of TOPSIS method in evaluating the effects of supply vane angle of a task/ambient air conditioning system on energy utilization and thermal comfort. Applied Energy, 2016, 180, 536-545.	5.1	95
4	Computational fluid dynamics (CFD) modelling of air flow field, mean age of air and CO2 distributions inside a bedroom with different heights of conditioned air supply outlet. Applied Energy, 2016, 164, 906-915.	5.1	80
5	An experimental study on even frosting performance of an air source heat pump unit with a multi-circuit outdoor coil. Applied Energy, 2016, 164, 36-44.	5.1	72
6	An experimental study on defrosting performance for an air source heat pump unit with a horizontally installed multi-circuit outdoor coil. Applied Energy, 2016, 165, 371-382.	5.1	69
7	Energy transfer procession in an air source heat pump unit during defrosting. Applied Energy, 2017, 204, 679-689.	5.1	67
8	Experimental investigation on an air source heat pump unit with a three-circuit outdoor coil for its reverse cycle defrosting termination temperature. Applied Energy, 2017, 204, 1388-1398.	5.1	60
9	A hybrid building thermal modeling approach for predicting temperatures in typical, detached, two-story houses. Applied Energy, 2019, 236, 101-116.	5.1	60
10	A numerical study on influences of building envelope heat gain on operating performances of a bed-based task/ambient air conditioning (TAC) system in energy saving and thermal comfort. Applied Energy, 2017, 192, 213-221.	5.1	56
11	An experimental study on the effects of downwards flowing of melted frost over a vertical multi-circuit outdoor coil in an air source heat pump on defrosting performance during reverse cycle defrosting. Applied Thermal Engineering, 2014, 67, 258-265.	3.0	55
12	Challenges in, and the development of, building energy saving techniques, illustrated with the example of an air source heat pump. Thermal Science and Engineering Progress, 2019, 10, 337-356.	1.3	54
13	An experimental study on defrosting performance of an air source heat pump unit with a multi-circuit outdoor coil at different frosting evenness values. Applied Thermal Engineering, 2016, 94, 331-340.	3.0	52
14	Assessment of working fluids, thermal resources and cooling utilities for Organic Rankine Cycles: State-of-the-art comparison, challenges, commercial status, and future prospects. Energy Conversion and Management, 2022, 252, 115055.	4.4	48
15	Computational fluid dynamics analysis of convective heat transfer coefficients for a sleeping human body. Applied Thermal Engineering, 2017, 117, 385-396.	3.0	47
16	Comparative studies on using RSM and TOPSIS methods to optimize residential air conditioning systems. Energy, 2018, 144, 98-109.	4.5	46
17	An experimental energy performance investigation and economic analysis on a cascade heat pump for high-temperature water in cold region. Renewable Energy, 2020, 152, 674-683.	4.3	46
18	Effects of cooling and heating sources properties and working fluid selection on cryogenic organic Rankine cycle for LNG cold energy utilization. Energy Conversion and Management, 2021, 247, 114706.	4.4	45

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19	Dual-effect single-mixed refrigeration cycle: An innovative alternative process for energy-efficient and cost-effective natural gas liquefaction. Applied Energy, 2020, 268, 115022.	5.1	44
20	An experimental study on defrosting performance for an air source heat pump unit at different frosting evenness values with melted frost local drainage. Applied Thermal Engineering, 2016, 99, 730-740.	3.0	43
21	Thermal, ventilation and energy saving performance evaluations of a ductless bed-based task/ambient air conditioning (TAC) system. Energy and Buildings, 2013, 66, 297-305.	3.1	41
22	Experimental and numerical study on air flow and moisture transport in sleeping environments with a task/ambient air conditioning (TAC) system. Energy and Buildings, 2016, 133, 596-604.	3.1	41
23	Experimental and numerical studies on the performance evaluation of a bed-based task/ambient air conditioning (TAC) system. Applied Energy, 2014, 136, 956-967.	5.1	38
24	Impact of mixed refrigerant selection on energy and exergy performance of natural gas liquefaction processes. Energy, 2020, 199, 117378.	4.5	38
25	PMV-based dynamic optimization of energy consumption for a residential task/ambient air conditioning system in different climate zones. Renewable Energy, 2019, 142, 41-54.	4.3	37
26	An experimental study on time-based start defrosting control strategy optimization for an air source heat pump unit with frost evenly distributed and melted frost locally drained. Energy and Buildings, 2018, 178, 26-37.	3.1	35
27	Defrosting start control strategy optimization for an air source heat pump unit with the frost accumulation and melted frost downwards flowing considered. Sustainable Cities and Society, 2019, 46, 101461.	5.1	31
28	A critical review on measures to suppress flow boiling instabilities in microchannels. Heat and Mass Transfer, 2021, 57, 889-910.	1.2	31
29	Performance evaluation of an air conditioning system with different heights of supply outlet applied to a sleeping environment. Energy and Buildings, 2014, 77, 281-291.	3.1	30
30	An experimental study on the uneven refrigerant distribution over a vertically installed multi-circuit outdoor coil in an air source heat pump unit during reverse cycle defrosting. Applied Thermal Engineering, 2015, 91, 975-985.	3.0	30
31	Experimental investigations on destroying surface tension of melted frost for defrosting performance improvement of a multi-circuit outdoor coil. Applied Thermal Engineering, 2016, 103, 1278-1288.	3.0	29
32	Operating optimization for improved energy consumption of a TAC system affected by nighttime thermal loads of building envelopes. Energy, 2017, 133, 491-501.	4.5	29
33	A modeling study on the revere cycle defrosting of an air source heat pump with the melted frost downwards flowing away and local drainage. Energy and Buildings, 2020, 226, 110257.	3.1	29
34	Energy transfer procession in an air source heat pump unit during defrosting with melted frost locally drainage in its multi-circuit outdoor coil. Energy and Buildings, 2018, 164, 109-120.	3.1	24
35	Refrigerant evaluation and performance comparison for a novel hybrid solar-assisted ejection-compression refrigeration cycle. Solar Energy, 2018, 160, 344-352.	2.9	24
36	Numerical study on heat transfer of oily wastewater spray falling film over a horizontal tube in a sewage source heat pump. International Journal of Heat and Mass Transfer, 2019, 142, 118423.	2.5	22

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37	A novel heat exchanger network retrofit approach based on performance reassessment. Energy Conversion and Management, 2018, 177, 477-492.	4.4	21
38	Unsteady heat transfer properties of spray falling over a horizontal tube in an oily sewage source heat pump. Applied Thermal Engineering, 2020, 179, 115675.	3.0	19
39	Experimental study on the melted frost influence on the metal energy storage during an air source heat pump defrosting. Energy and Buildings, 2020, 214, 109809.	3.1	19
40	Investigations on thermal environment in residential buildings with PCM embedded in external wall. Energy Procedia, 2017, 142, 1888-1895.	1.8	18
41	Organic Rankine cycle integrated with hydrate-based desalination for a sustainable energyâ€“water nexus system. Applied Energy, 2021, 291, 116839.	5.1	18
42	Performance evaluation and energy-saving potential comparison of a heat-powered novel compression-enhanced ejector refrigeration cycle with an economizer. Applied Thermal Engineering, 2018, 130, 1568-1579.	3.0	17
43	Energy performance of a bedroom task/ambient air conditioning (TAC) system applied in different climate zones of China. Energy, 2018, 159, 724-736.	4.5	17
44	Boiling heat transfer mechanism of environmental-friendly refrigerants: A review. International Journal of Refrigeration, 2022, 133, 214-225.	1.8	17
45	Thermal stability of organic binary PCMs for energy storage. Energy Procedia, 2017, 142, 3287-3294.	1.8	16
46	A simplified numerical study on the energy performance and thermal environment of a bedroom TAC system. Energy and Buildings, 2018, 166, 305-316.	3.1	15
47	Parameter optimization for operation of a bed-based task/ambient air conditioning (TAC) system to achieve a thermally neutral environment with minimum energy use. Indoor and Built Environment, 2017, 26, 132-144.	1.5	14
48	Numerical investigations on the effects of envelope thermal loads on energy utilization potential and thermal non-uniformity in sleeping environments. Building and Environment, 2017, 124, 232-244.	3.0	14
49	Thermal Stability Experimental Study on Three Types of Organic Binary Phase Change Materials Applied in Thermal Energy Storage System. Journal of Thermal Science and Engineering Applications, 2018, 10, .	0.8	14
50	An Experimental Study on Performance During Reverse Cycle Defrosting of an Air Source Heat Pump with a Horizontal Three-circuit Outdoor Coil. Energy Procedia, 2014, 61, 92-95.	1.8	12
51	A numerical study on non-uniform characteristics of spray falling heat transfer over horizontal tubes in an oily sewage source heat pump. International Journal of Heat and Mass Transfer, 2020, 154, 119679.	2.5	12
52	Frost layer thickness measurement and calculation: A short review. Energy Procedia, 2017, 142, 3812-3819.	1.8	11
53	Progress and prospect of hydrate-based desalination technology. Frontiers in Energy, 2022, 16, 445-459.	1.2	10
54	Temporal and spatial frost growth prediction of a tube-finned heat exchanger considering frost distribution characteristics. International Journal of Heat and Mass Transfer, 2022, 183, 122192.	2.5	9

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55	Influence of transient heat flux on boiling flow pattern in a straight microchannel applied in concentrator photovoltaic systems. International Journal of Heat and Mass Transfer, 2022, 190, 122792.	2.5	7
56	Numerical investigation on the heat flux properties of a thermal manikin in sleeping environments applying task/ambient air conditioning. Journal of Thermal Analysis and Calorimetry, 2022, 147, 1675-1688.	2.0	5
57	Evaluating Effects of Building Envelope Thermal Loads on Energy use and Thermal Comfort for a Bedroom TAC System. Energy Procedia, 2017, 105, 2607-2614.	1.8	4
58	Instability control of two-phase flow in microchannel heat exchangers. , 2020, , 387-410.		4
59	A study on the effects of different bedding systems on thermal comfort â€“ quantifying the sensitivity coefficient used for calculating Predicted Mean Vote (PMV) in sleeping environments. Energy Procedia, 2017, 142, 1939-1946.	1.8	3
60	A multi-objective study on the operation of task/ambient air conditioning systems in subtropics. Energy Procedia, 2017, 142, 1880-1887.	1.8	3
61	An experimental study on effects of oily content on flow pattern transition over horizontal tubes in a sewage source heat pump system. International Journal of Thermal Sciences, 2022, 181, 107779.	2.6	3
62	Experimental Study on R245fa Condensation Heat Transfer in Horizontal Smooth Tube and Enhanced Tube. Energy Procedia, 2017, 142, 4169-4175.	1.8	2
63	Experimental study on defrosting start control strategy for ASHPs. Energy Procedia, 2018, 152, 438-443.	1.8	2
64	Experimental study on frost unevenly distributed and melted frost downwards flowing during defrosting for ASHPs. Energy Procedia, 2019, 158, 2826-2833.	1.8	2
65	Model predictive control applied toward the building indoor climate. , 2020, , 457-492.		2
66	Unsteady characteristics of sleeping thermal comfort during defrosting of a T-ASHP system. Indoor and Built Environment, 0, , 1420326X2210792.	1.5	1
67	Editorial: Emerging Sustainable and Energy-Efficient Technologies in Heat Pumps for Residential Heating. Frontiers in Energy Research, 2022, 10, .	1.2	1
68	Numerical study on supply parametersâ€™ influence on ventilation performance of a personalized air conditioning system for sleeping environments. Journal of Thermal Analysis and Calorimetry, 2022, 147, 11331-11343.	2.0	1
69	Reduction of energy consumption for a TAC system applied to sleeping environments with varying envelope thermal load. Energy Procedia, 2018, 152, 360-365.	1.8	0
70	Analysis of climate zonesâ€™ effects on energy consumption of a bedroom TAC system. Energy Procedia, 2019, 158, 2934-2941.	1.8	0