

Jianhua Fan

List of Publications by Year in descending order

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68
papers

1,836
citations

236612

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all docs

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times ranked

1137
citing authors

#	ARTICLE	IF	CITATIONS
1	Large-scale solar district heating plants in Danish smart thermal grid: Developments and recent trends. <i>Energy Conversion and Management</i> , 2019, 189, 67-80.	4.4	122
2	Thermo-economic optimization of a hybrid solar district heating plant with flat plate collectors and parabolic trough collectors in series. <i>Energy Conversion and Management</i> , 2018, 165, 92-101.	4.4	107
3	Large-scale solar thermal systems in leading countries: A review and comparative study of Denmark, China, Germany and Austria. <i>Applied Energy</i> , 2020, 270, 114997.	5.1	88
4	Flow distribution in a solar collector panel with horizontally inclined absorber strips. <i>Solar Energy</i> , 2007, 81, 1501-1511.	2.9	84
5	Thermal stratification in a hot water tank established by heat loss from the tank. <i>Solar Energy</i> , 2012, 86, 3460-3469.	2.9	74
6	Feasibility study on solar district heating in China. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 108, 53-64.	8.2	74
7	Experimental investigations on prototype heat storage units utilizing stable supercooling of sodium acetate trihydrate mixtures. <i>Applied Energy</i> , 2016, 169, 72-80.	5.1	66
8	Design and functionality of a segmented heat-storage prototype utilizing stable supercooling of sodium acetate trihydrate in a solar heating system. <i>Applied Energy</i> , 2018, 221, 522-534.	5.1	58
9	Demonstration and optimization of a solar district heating system with ground source heat pumps. <i>Solar Energy</i> , 2020, 202, 171-189.	2.9	48
10	Simulation and optimization study on a solar space heating system combined with a low temperature ASHP for single family rural residential houses in Beijing. <i>Energy and Buildings</i> , 2016, 126, 2-13.	3.1	47
11	Thermal Conductivity Enhancement of Sodium Acetate Trihydrate by Adding Graphite Powder and the Effect on Stability of Supercooling. <i>Energy Procedia</i> , 2015, 70, 249-256.	1.8	46
12	Annual measured and simulated thermal performance analysis of a hybrid solar district heating plant with flat plate collectors and parabolic trough collectors in series. <i>Applied Energy</i> , 2017, 205, 417-427.	5.1	45
13	Analysis and validation of a quasi-dynamic model for a solar collector field with flat plate collectors and parabolic trough collectors in series for district heating. <i>Energy</i> , 2018, 142, 130-138.	4.5	43
14	Experimental investigations on heat content of supercooled sodium acetate trihydrate by a simple heat loss method. <i>Solar Energy</i> , 2016, 139, 249-257.	2.9	42
15	Thermal performance assessment and improvement of a solar domestic hot water tank with PCM in the mantle. <i>Energy and Buildings</i> , 2018, 172, 10-21.	3.1	42
16	Economic analysis and optimization of combined solar district heating technologies and systems. <i>Energy</i> , 2019, 186, 115886.	4.5	41
17	Comprehensive energy, economic, environmental assessment of a building integrated photovoltaic-thermoelectric system with battery storage for net zero energy building. <i>Building Simulation</i> , 2022, 15, 1923-1941.	3.0	41
18	Crystallization by local cooling of supercooled sodium acetate trihydrate composites for long-term heat storage. <i>Energy and Buildings</i> , 2018, 180, 159-171.	3.1	34

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19	Buoyancy driven flow in a hot water tank due to standby heat loss. <i>Solar Energy</i> , 2012, 86, 3438-3449.	2.9	32
20	Numerical and experimental study of an underground water pit for seasonal heat storage. <i>Renewable Energy</i> , 2020, 150, 487-508.	4.3	32
21	A solar combi-system utilizing stable supercooling of sodium acetate trihydrate for heat storage: Numerical performance investigation. <i>Applied Energy</i> , 2019, 242, 1108-1120.	5.1	31
22	An improved dynamic test method for solar collectors. <i>Solar Energy</i> , 2012, 86, 1838-1848.	2.9	30
23	A comprehensive analysis on development and transition of the solar thermal market in China with more than 70% market share worldwide. <i>Energy</i> , 2019, 174, 611-624.	4.5	29
24	Thermal performance analysis of large-scale flat plate solar collectors and regional applicability in China. <i>Energy</i> , 2022, 238, 121931.	4.5	28
25	Development of a Hot Water Tank Simulation Program with Improved Prediction of Thermal Stratification in the Tank. <i>Energy Procedia</i> , 2015, 70, 193-202.	1.8	26
26	Buoyancy Effects on Thermal Behavior of a Flat-Plate Solar Collector. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2008, 130, .	1.1	25
27	Review on sodium acetate trihydrate in flexible thermal energy storages: Properties, challenges and applications. <i>Journal of Energy Storage</i> , 2021, 40, 102780.	3.9	25
28	Demonstration of a solar combi-system utilizing stable supercooling of sodium acetate trihydrate for heat storage. <i>Applied Thermal Engineering</i> , 2020, 166, 114647.	3.0	23
29	Laboratory Test of a Prototype Heat Storage Module Based on Stable Supercooling of Sodium Acetate Trihydrate. <i>Energy Procedia</i> , 2015, 70, 172-181.	1.8	22
30	A new Laplace transformation method for dynamic testing of solar collectors. <i>Renewable Energy</i> , 2015, 75, 448-458.	4.3	22
31	Thermal characteristics of a long-term heat storage unit with sodium acetate trihydrate. <i>Applied Thermal Engineering</i> , 2021, 187, 116563.	3.0	21
32	Development of Seasonal Heat Storage based on Stable Supercooling of a Sodium Acetate Water Mixture. <i>Energy Procedia</i> , 2012, 30, 260-269.	1.8	20
33	Experimental investigation of a tank-in-tank heat storage unit utilizing stable supercooling of sodium acetate trihydrate. <i>Applied Thermal Engineering</i> , 2020, 167, 114709.	3.0	19
34	Spatio-temporal analysis of macro-instability in a stirred vessel via digital particle image velocimetry (DPIV). <i>Chemical Engineering Science</i> , 2004, 59, 1863-1873.	1.9	18
35	Optimization of the coefficient of performance of a heat pump with an integrated storage tank – A computational fluid dynamics study. <i>Applied Thermal Engineering</i> , 2019, 160, 114014.	3.0	17
36	Economic optimization of auxiliary heat source for centralized solar district heating system in Tibetan Plateau, China. <i>Energy Conversion and Management</i> , 2021, 243, 114385.	4.4	17

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37	Thermal Behavior of a Heat Exchanger Module for Seasonal Heat Storage. Energy Procedia, 2012, 30, 244-254.	1.8	16
38	Laboratory Testing of Solar Combi System with Compact Long Term PCM Heat Storage. Energy Procedia, 2016, 91, 330-337.	1.8	15
39	Long-term thermal performance analysis of a large-scale water pit thermal energy storage. Journal of Energy Storage, 2022, 52, 105001.	3.9	15
40	Experimental investigation on a combined solar and ground source heat pump system for a single-family house: Energy flow analysis and performance assessment. Energy and Buildings, 2021, 241, 110958.	3.1	14
41	Numerical investigations of long-term thermal performance of a large water pit heat storage. Solar Energy, 2021, 224, 808-822.	2.9	14
42	Testing, Development and Demonstration of Large Scale Solar District Heating Systems. Energy Procedia, 2015, 70, 568-573.	1.8	13
43	Underground solar energy storage via energy piles: An experimental study. Applied Energy, 2022, 306, 118042.	5.1	13
44	Economic analysis and optimization of household solar heating technologies and systems. Sustainable Energy Technologies and Assessments, 2019, 36, 100532.	1.7	12
45	Experimental investigations on phase separation for different heights of sodium acetate water mixtures under different conditions. Applied Thermal Engineering, 2019, 148, 796-805.	3.0	12
46	A policy study on the mandatory installation of solar water heating systems “ Lessons from the experience in China. Solar Energy, 2020, 206, 614-627.	2.9	12
47	TÃ¼rs 10000 m2 CSP + Flat Plate Solar Collector Plant - Cost-Performance Optimization of the Design. Energy Procedia, 2016, 91, 312-316.	1.8	11
48	Testing of PCM Heat Storage Modules with Solar Collectors as Heat Source. Energy Procedia, 2016, 91, 138-144.	1.8	11
49	Experimental and computational fluid dynamics investigations of tracking CPC solar collectors. Solar Energy, 2020, 199, 26-38.	2.9	11
50	Development of a new method to estimate thermal performance of multilayer radiant floor. Journal of Building Engineering, 2021, 33, 101562.	1.6	11
51	Experimental and Theoretic Investigations of Thermal Behavior of a Seasonal Water Pit Heat Storage. , 2017, , .		11
52	Modelling of a thermally activated building system (TABS) combined with free-hanging acoustic ceiling units using computational fluid dynamics (CFD). Building Simulation, 2018, 11, 315-324.	3.0	10
53	A Comprehensive Approach for Modelling Horizontal Diffuse Radiation, Direct Normal Irradiance and Total Tilted Solar Radiation Based on Global Radiation under Danish Climate Conditions. Energies, 2018, 11, 1315.	1.6	10
54	Experimental and numerical study of a latent heat storage using sodium acetate trihydrate for short and long term applications. Journal of Energy Storage, 2022, 47, 103588.	3.9	10

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55	Investigations of Intelligent Solar Heating Systems for Single Family House. Energy Procedia, 2014, 48, 1-8.	1.8	9
56	Influence of geometry on the thermal performance of water pit seasonal heat storages for solar district heating. Building Simulation, 2021, 14, 579-599.	3.0	8
57	A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV). Chemical Engineering Journal, 2004, 102, 25-33.	6.6	7
58	Solar Water Heating Systems Applied to High-Rise Buildingsâ€™ Lessons from Experiences in China. Energies, 2019, 12, 3078.	1.6	7
59	Optimization of the flow resistance characteristics of the direct return flat plate solar collector field. Solar Energy, 2021, 215, 388-402.	2.9	7
60	Performance comparison of two water pit thermal energy storage (PTES) systems using energy, exergy, and stratification indicators. Journal of Energy Storage, 2022, 52, 104947.	3.9	7
61	Validation of a CFD Model Simulating Charge and Discharge of a Small Heat Storage Test Module based on a Sodium Acetate Water Mixture. Energy Procedia, 2014, 57, 2451-2460.	1.8	6
62	Towards Seasonal Heat Storage Based on Stable Super Cooling of Sodium Acetate Trihydrate. , 2010, , .		6
63	Thermal behavior of a combi-storage in a solar-ground source heat pump system for a single-family house. Energy and Buildings, 2022, 259, 111902.	3.1	6
64	Design optimization of a latent heat storage using sodium acetate trihydrate. Journal of Energy Storage, 2022, 52, 104798.	3.9	5
65	Energy and exergy analysis of a glazed solar preheating collector wall with non-uniform perforated corrugated plate. Renewable Energy, 2022, 196, 1048-1063.	4.3	5
66	Regional Adaptability Analysis of Solar Roof Utilization Technologies in China. Applied Sciences (Switzerland), 2022, 12, 2792.	1.3	2
67	Thermal Performance Analysis of a Solar Heating Plant. , 2017, , .		1
68	Numerical study of a high-temperature thermal energy storage system with metal and inorganic salts as phase change materials. Journal of Renewable and Sustainable Energy, 2021, 13, 044104.	0.8	0