Jianhua Fan

List of Publications by Citations

65 papers	1,133 citations	20 h-index	31 g-index
68 ext. papers	1,474 ext. citations	6.3 avg, IF	5.09 L-index

#	Paper	IF	Citations
65	Large-scale solar district heating plants in Danish smart thermal grid: Developments and recent trends. *Energy Conversion and Management*, **2019**, 189, 67-80	10.6	81
64	Thermo-economic optimization of a hybrid solar district heating plant with flat plate collectors and parabolic trough collectors in series. *Energy Conversion and Management*, **2018**, 165, 92-101	10.6	76
63	Flow distribution in a solar collector panel with horizontally inclined absorber strips. *Solar Energy*, **2007**, 81, 1501-1511	6.8	71
62	Thermal stratification in a hot water tank established by heat loss from the tank. *Solar Energy*, **2012** , 86, 3460-3469	6.8	62
61	Experimental investigations on prototype heat storage units utilizing stable supercooling of sodium acetate trihydrate mixtures. *Applied Energy*, **2016**, 169, 72-80	10.7	51
60	Large-scale solar thermal systems in leading countries: A review and comparative study of Denmark, China, Germany and Austria. *Applied Energy*, **2020**, 270, 114997	10.7	48
59	Feasibility study on solar district heating in China. *Renewable and Sustainable Energy Reviews*, **2019**, 108, 53-64	16.2	42
58	Thermal Conductivity Enhancement of Sodium Acetate Trihydrate by Adding Graphite Powder and the Effect on Stability of Supercooling. *Energy Procedia*, **2015**, 70, 249-256	2.3	36
57	Design and functionality of a segmented heat-storage prototype utilizing stable supercooling of sodium acetate trihydrate in a solar heating system. *Applied Energy*, **2018**, 221, 522-534	10.7	34
56	Annual measured and simulated thermal performance analysis of a hybrid solar district heating plant with flat plate collectors and parabolic trough collectors in series. *Applied Energy*, **2017**, 205, 417-427	10.7	34
55	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. *Energy*, **2018**, 142, 130-138	7.9	33
54	Thermal performance assessment and improvement of a solar domestic hot water tank with PCM in the mantle. *Energy and Buildings*, **2018**, 172, 10-21	7	30
53	Buoyancy driven flow in a hot water tank due to standby heat loss. *Solar Energy*, **2012**, 86, 3438-3449	6.8	30
52	Experimental investigations on heat content of supercooled sodium acetate trihydrate by a simple heat loss method. *Solar Energy*, **2016**, 139, 249-257	6.8	30
51	An improved dynamic test method for solar collectors. *Solar Energy*, **2012**, 86, 1838-1848	6.8	28
50	Simulation and optimization study on a solar space heating system combined with a low temperature ASHP for single family rural residential houses in Beijing. *Energy and Buildings*, **2016**, 126, 2-13	7	28
49	Buoyancy Effects on Thermal Behavior of a Flat-Plate Solar Collector. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2008**, 130,	2.3	24

48	Economic analysis and optimization of combined solar district heating technologies and systems. *Energy*, **2019**, 186, 115886	7.9	21
47	A comprehensive analysis on development and transition of the solar thermal market in China with more than 70% market share worldwide. *Energy*, **2019**, 174, 611-624	7.9	20
46	Demonstration and optimization of a solar district heating system with ground source heat pumps. *Solar Energy*, **2020**, 202, 171-189	6.8	20
45	Development of a Hot Water Tank Simulation Program with Improved Prediction of Thermal Stratification in the Tank. *Energy Procedia*, **2015**, 70, 193-202	2.3	20
44	Crystallization by local cooling of supercooled sodium acetate trihydrate composites for long-term heat storage. *Energy and Buildings*, **2018**, 180, 159-171	7	19
43	A new Laplace transformation method for dynamic testing of solar collectors. *Renewable Energy*, **2015**, 75, 448-458	8.1	18
42	A solar combi-system utilizing stable supercooling of sodium acetate trihydrate for heat storage: Numerical performance investigation. *Applied Energy*, **2019**, 242, 1108-1120	10.7	17
41	Laboratory Test of a Prototype Heat Storage Module Based on Stable Supercooling of Sodium Acetate Trihydrate. *Energy Procedia*, **2015**, 70, 172-181	2.3	17
40	Development of Seasonal Heat Storage based on Stable Supercooling of a Sodium Acetate Water Mixture. *Energy Procedia*, **2012**, 30, 260-269	2.3	17
39	Numerical and experimental study of an underground water pit for seasonal heat storage. *Renewable Energy*, **2020**, 150, 487-508	8.1	17
38	Spatio-temporal analysis of macro-instability in a stirred vessel via digital particle image velocimetry (DPIV). *Chemical Engineering Science*, **2004**, 59, 1863-1873	4.4	15
37	Demonstration of a solar combi-system utilizing stable supercooling of sodium acetate trihydrate for heat storage. *Applied Thermal Engineering*, **2020**, 166, 114647	5.8	14
36	Thermal Behavior of a Heat Exchanger Module for Seasonal Heat Storage. *Energy Procedia*, **2012**, 30, 244-254	2.3	12
35	Testing, Development and Demonstration of Large Scale Solar District Heating Systems. *Energy Procedia*, **2015**, 70, 568-573	2.3	11
34	Optimization of the coefficient of performance of a heat pump with an integrated storage tank – A computational fluid dynamics study. *Applied Thermal Engineering*, **2019**, 160, 114014	5.8	10
33	Testing of PCM Heat Storage Modules with Solar Collectors as Heat Source. *Energy Procedia*, **2016**, 91, 138-144	2.3	10
32	The 10000 m2 CSP + Flat Plate Solar Collector Plant - Cost-Performance Optimization of the Design. *Energy Procedia*, **2016**, 91, 312-316	2.3	9
31	Laboratory Testing of Solar Combi System with Compact Long Term PCM Heat Storage. *Energy Procedia*, **2016**, 91, 330-337	2.3	9

30	Economic analysis and optimization of household solar heating technologies and systems. *Sustainable Energy Technologies and Assessments*, **2019**, 36, 100532	4.7	8
29	Experimental investigations on phase separation for different heights of sodium acetate water mixtures under different conditions. *Applied Thermal Engineering*, **2019**, 148, 796-805	5.8	8
28	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	3.9	8
27	A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV). *Chemical Engineering Journal*, **2004**, 102, 25-33	14.7	7
26	Experimental investigation of a tank-in-tank heat storage unit utilizing stable supercooling of sodium acetate trihydrate. *Applied Thermal Engineering*, **2020**, 167, 114709	5.8	7
25	Development of a new method to estimate thermal performance of multilayer radiant floor. *Journal of Building Engineering*, **2021**, 33, 101562	5.2	7
24	Experimental and computational fluid dynamics investigations of tracking CPC solar collectors. *Solar Energy*, **2020**, 199, 26-38	6.8	6
23	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	3.1	6
22	Investigations of Intelligent Solar Heating Systems for Single Family House. *Energy Procedia*, **2014**, 48, 1-8	2.3	6
21	Experimental and Theoretic Investigations of Thermal Behavior of a Seasonal Water Pit Heat Storage **2017**,		6
20	Thermal characteristics of a long-term heat storage unit with sodium acetate trihydrate. *Applied Thermal Engineering*, **2021**, 187, 116563	5.8	6
19	Thermal performance analysis of large-scale flat plate solar collectors and regional applicability in China. *Energy*, **2022**, 238, 121931	7.9	6
18	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	2.3	5
17	Towards Seasonal Heat Storage Based on Stable Super Cooling of Sodium Acetate Trihydrate **2010**,		5
16	A policy study on the mandatory installation of solar water heating systems Lessons from the experience in China. *Solar Energy*, **2020**, 206, 614-627	6.8	5
15	Review on sodium acetate trihydrate in flexible thermal energy storages: Properties, challenges and applications. *Journal of Energy Storage*, **2021**, 40, 102780	7.8	5
14	Solar Water Heating Systems Applied to High-Rise Buildings Lessons from Experiences in China. *Energies*, **2019**, 12, 3078	3.1	4
13	Optimization of the flow resistance characteristics of the direct return flat plate solar collector field. *Solar Energy*, **2021**, 215, 388-402	6.8	4

12	Numerical investigations of long-term thermal performance of a large water pit heat storage. *Solar Energy*, **2021**, 224, 808-822	6.8	2
11	Underground solar energy storage via energy piles: An experimental study. *Applied Energy*, **2022**, 306, 118042	10.7	1
10	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	7	1
9	Influence of geometry on the thermal performance of water pit seasonal heat storages for solar district heating. *Building Simulation*, **2021**, 14, 579-599	3.9	1
8	Economic optimization of auxiliary heat source for centralized solar district heating system in Tibetan Plateau, China. *Energy Conversion and Management*, **2021**, 243, 114385	10.6	1
7	Performance comparison of two water pit thermal energy storage (PTES) systems using energy, exergy, and stratification indicators. *Journal of Energy Storage*, **2022**, 52, 104947	7.8	1
6	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	7	0
5	Experimental and numerical study of a latent heat storage using sodium acetate trihydrate for short and long term applications. *Journal of Energy Storage*, **2021**, 103588	7.8	0
4	Regional Adaptability Analysis of Solar Roof Utilization Technologies in China. *Applied Sciences (Switzerland)*, **2022**, 12, 2792	2.6	0
3	Design optimization of a latent heat storage using sodium acetate trihydrate. *Journal of Energy Storage*, **2022**, 52, 104798	7.8	0
2	Long-term thermal performance analysis of a large-scale water pit thermal energy storage. *Journal of Energy Storage*, **2022**, 52, 105001	7.8	0
1	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	2.5	