Xiaoling Cao

List of Publications by Year
in descending order

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82 papers	4,220 citations	117571 34 h-index	114418 63 g-index
82 all docs	82 docs citations	82 times ranked	2856 citing authors

#	Article	IF	Citations
1	Fatty acids as phase change materials: A review. Renewable and Sustainable Energy Reviews, 2014, 29, 482-498.	8.2	549
2	Latent Heat Thermal Energy Storage Systems with Solidâ€“Liquid Phase Change Materials: A Review. Advanced Engineering Materials, 2018, 20, 1700753.	1.6	297
3	Experimental investigation on performance comparison of PV/T-PCM system and PV/T system. Renewable Energy, 2018, 119, 152-159.	4.3	181
4	Preparation and properties of myristicâ€“palmiticâ€“stearic acid/expanded graphite composites as phase change materials for energy storage. Solar Energy, 2014, 99, 259-266.	2.9	170
5	Effect of installation angle of fins on melting characteristics of annular unit for latent heat thermal energy storage. Solar Energy, 2016, 136, 365-378.	2.9	155
6	Preparation and characterization of lauricâ€“myristicâ€“palmitic acid ternary eutectic mixtures/expanded graphite composite phase change material for thermal energy storage. Chemical Engineering Journal, 2013, 231, 214-219.	6.6	152
7	Experimental studies on the supercooling and melting/freezing characteristics of nano-copper/sodium acetate trihydrate composite phase change materials. Renewable Energy, 2016, 99, 1029-1037.	4.3	149
8	Lauricâ€“palmiticâ€“stearic acid/expanded perlite composite as form-stable phase change material: Preparation and thermal properties. Energy and Buildings, 2014, 82, 505-511.	3.1	123
9	Effect of carbon nanotubes on the thermal behavior of palmiticâ€“stearic acid eutectic mixtures as phase change materials for energy storage. Solar Energy, 2014, 110, 64-70.	2.9	117
10	A hierarchical interdigitated flow field design for scale-up of high-performance redox flow batteries. Applied Energy, 2019, 238, 435-441.	5.1	113
11	Effect of natural convection on melting performance of eccentric horizontal shell and tube latent heat storage unit. Sustainable Cities and Society, 2018, 38, 571-581.	5.1	108
12	Preparation and properties of palmitic-stearic acid eutectic mixture/expanded graphite composite as phase change material for energy storage. Energy, 2014, 78, 950-956.	4.5	105
13	Thermal performance enhancement of palmitic-stearic acid by adding graphene nanoplatelets and expanded graphite for thermal energy storage: A comparative study. Energy, 2016, 97, 488-497.	4.5	101
14	A novel PCM of lauricâ€“myristicâ€“stearic acid/expanded graphite composite for thermal energy storage. Materials Letters, 2014, 120, 43-46.	1.3	97
15	Numerical investigation on optimal number of longitudinal fins in horizontal annular phase change unit at different wall temperatures. Energy and Buildings, 2018, 158, 384-392.	3.1	93
16	Coupled cooling method and application of latent heat thermal energy storage combined with pre-cooling of envelope: Method and model development. Energy, 2017, 119, 817-833.	4.5	88
17	Ground source heat pump system: A review of simulation in China. Renewable and Sustainable Energy Reviews, 2012, 16, 6814-6822.	8.2	87
18	Investigation on thermal properties of capricâ€“palmiticâ€“stearic acid/activated carbon composite phase change materials for high-temperature cooling application. Journal of Thermal Analysis and Calorimetry, 2016, 124, 881-888.	2.0	72

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19	Inorganic composite sorbents for water vapor sorption: A research progress. Renewable and Sustainable Energy Reviews, 2016, 54, 761-776.	8.2	67
20	Flexible phase change materials for thermal storage and temperature control. Chemical Engineering Journal, 2018, 353, 920-929.	6.6	66
21	Preparation and thermal characterization of capricâ€“myristicâ€“palmitic acid/expanded graphite composite as phase change material for energy storage. Materials Letters, 2014, 125, 154-157.	1.3	64
22	A novel form-stable phase change composite with excellent thermal and electrical conductivities. Chemical Engineering Journal, 2018, 336, 342-351.	6.6	56
23	Experimental and numerical investigation on dodecane/expanded graphite shape-stabilized phase change material for cold energy storage. Energy, 2019, 189, 116175.	4.5	56
24	Numerical study on the impact of Mach number on the coupling effect of aerodynamic heating and aerodynamic pressure caused by a tube train. Journal of Wind Engineering and Industrial Aerodynamics, 2019, 190, 100-111.	1.7	52
25	Cold storage condensation heat recovery system with a novel composite phase change material. Applied Energy, 2016, 175, 259-268.	5.1	47
26	Micro-Channel Heat Sink: A Review. Journal of Thermal Science, 2020, 29, 1431-1462.	0.9	46
27	Restoration performance of vertical ground heat exchanger with various intermittent ratios. Geothermics, 2015, 54, 115-121.	1.5	44
28	Thermal reliability of typical fatty acids as phase change materials based on 10,000 accelerated thermal cycles. Sustainable Cities and Society, 2019, 46, 101380.	5.1	44
29	A novel hybrid energy system combined with solar-road and soil-regenerator: Dynamic model and operational performance. Energy Conversion and Management, 2018, 156, 376-387.	4.4	41
30	Thermal interaction of multiple ground heat exchangers under different intermittent ratio and separation distance. Applied Thermal Engineering, 2016, 108, 277-286.	3.0	40
31	Improvement of supercooling and thermal conductivity of the sodium acetate trihydrate for thermal energy storage with Î±-Fe2O3 as addictive. Journal of Thermal Analysis and Calorimetry, 2018, 133, 859-867.	2.0	40
32	Experimental investigation on Influencing Factors of air curtain systems barrier efficiency for mine refuge chamber. Chemical Engineering Research and Design, 2016, 102, 534-546.	2.7	36
33	Thermophysical Properties of Some Fatty Acids/Surfactants as Phase Change Slurries for Thermal Energy Storage. Journal of Chemical & Engineering Data, 2015, 60, 2495-2501.	1.0	35
34	Thermal properties of polyethylene glycol/carbon microsphere composite as a novel phase change material. Journal of Thermal Analysis and Calorimetry, 2017, 130, 1741-1749.	2.0	34
35	Thermophysical properties enhancement of ternary carbonates with carbon materials for high-temperature thermal energy storage. Solar Energy, 2017, 155, 661-669.	2.9	33
36	Prediction of the solid effective thermal conductivity of fatty acid/carbon material composite phase change materials based on fractal theory. Energy, 2019, 170, 752-762.	4.5	31

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37	Thermal performance of stearic acid/carbon nanotube composite phase change materials for energy storage prepared by ball milling. International Journal of Energy Research, 2019, 43, 6327-6336.	2.2	28
38	Coupled cooling method and application of latent heat thermal energy storage combined with pre-cooling of envelope: Sensitivity analysis and optimization. Chemical Engineering Research and Design, 2017, 107, 438-453.	2.7	26
39	Thermal performance of triplex-tube latent heat storage exchanger: simultaneous heat storage and hot water supply via condensation heat recovery. Renewable Energy, 2020, 157, 616-625.	4.3	26
40	Heat pipe/phase change material coupled thermal management in Li-ion battery packs: Optimization and energy-saving assessment. Applied Thermal Engineering, 2022, 208, 118211.	3.0	26
41	Impact of vacuum degree on the aerodynamics of a high-speed train capsule running in a tube. International Journal of Heat and Fluid Flow, 2021, 88, 108752.	1.1	25
42	A novel hybrid energy system combined with solar-road and soil-regenerator: Sensitivity analysis and optimization. Renewable Energy, 2018, 129, 419-430.	4.3	24
43	Thermal and electrical performance of a novel photovoltaic-thermal road. Solar Energy, 2020, 199, 1-18.	2.9	24
44	Study on thermal property of lauricâ€“palmiticâ€“stearic acid/vermiculite composite as form-stable phase change material for energy storage. Advances in Mechanical Engineering, 2015, 7, 168781401560502.	0.8	23
45	Enhanced thermal properties of Li2CO3â€“Na2CO3â€–K2CO3 nanofluids with nanoalumina for heat transfer in high-temperature CSP systems. Journal of Thermal Analysis and Calorimetry, 2017, 128, 1783-1792.	2.0	23
46	Coupled cooling method for multiple latent heat thermal storage devices combined with pre-cooling of envelope: Model development and operation optimization. Energy, 2018, 159, 508-524.	4.5	22
47	Inorganic composite adsorbent CaCl₂/MWNT for water vapor adsorption. RSC Advances, 2015, 5, 38630-38639.	1.7	20
48	Thermal properties enforcement of carbonate ternary via lithium fluoride: A heat transfer fluid for concentrating solar power systems. Renewable Energy, 2017, 111, 523-531.	4.3	20
49	An Aerothermal Study of Influence of Blockage Ratio on a Supersonic Tube Train System. Journal of Thermal Science, 2022, 31, 529-540.	0.9	20
50	Experimental investigation on thermophysical properties of capric acidâ€“lauric acid phase change slurries for thermal storage system. Energy, 2015, 90, 359-368.	4.5	19
51	Coupled cooling method and application of latent heat thermal energy storage combined with pre-cooling of envelope: Optimization of pre-cooling with intermittent mode. Sustainable Cities and Society, 2018, 38, 370-381.	5.1	19
52	Thermal and infrared camouflage performance of earth-air heat exchanger for cooling an underground diesel generator room for protective engineering. Sustainable Cities and Society, 2019, 47, 101437.	5.1	18
53	Dynamic Performance of the Shading-type Building-Integrated Photovoltaic Claddings. Procedia Engineering, 2015, 121, 930-937.	1.2	17
54	Thermal properties of ternary carbonate/T-ZnOw for thermal energy storage in high-temperature concentrating solar power systems. Composites Part A: Applied Science and Manufacturing, 2017, 93, 177-184.	3.8	17

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55	Coupled cooling method and application of latent heat thermal energy storage combined with pre-cooling of envelope: Temperature control using phase-change chair. Sustainable Cities and Society, 2018, 42, 38-51.	5.1	17
56	Effect of water content on the phase transition temperature, latent heat and water uptake of PEG polymers acting as endothermal-hydroscopic materials. Journal of Thermal Analysis and Calorimetry, 2016, 126, 699-708.	2.0	16
57	Enhanced Thermal Energy Storage Performance of Polyethylene Glycol by Using Interfacial Interaction of Copperâ€Based Metal Oxide. Advanced Engineering Materials, 2017, 19, 1600601.	1.6	16
58	Numerical simulation of smoke stratification in tunnel fires under longitudinal velocities. Underground Space (China), 2021, 6, 163-172.	3.4	16
59	Effect of connection mode and mass flux on the energy output of a PVT hot water system. Solar Energy, 2017, 158, 285-294.	2.9	14
60	Simultaneous decrease in supercooling and enhancement of thermal conductivity of paraffin emulsion in medium temperature range with graphene as additive. Thermochimica Acta, 2018, 664, 16-25.	1.2	14
61	Numerical analysis of the aerothermodynamic behavior of a Hyperloop in choked flow. Energy, 2021, 237, 121427.	4.5	14
62	Optimum connection modes for photovoltaic thermal collectors in different radiation zones of China. Applied Thermal Engineering, 2017, 122, 661-672.	3.0	12
63	Thermo-economic analysis of geothermal heat pump system integrated with multi-modular water-phase change material tanks for underground space cooling applications. Journal of Energy Storage, 2022, 45, 103726.	3.9	12
64	Steady-state equation of water vapor sorption for CaCl2-based chemical sorbents and its application. Scientific Reports, 2016, 6, 34115.	1.6	11
65	Polyethylene Glycolâ€“CaCl₂ Coordination Compounds as a Novel Formâ€Stable Phase Change Material with Excellent Thermophysical Properties. Advanced Engineering Materials, 2018, 20, 1700643.	1.6	11
66	Flue Gas Water Recovery by Indirect Cooling Technology for Large-Scale Applications: A Review. Journal of Thermal Science, 2020, 29, 1223-1241.	0.9	10
67	Performance analysis of photovoltaic-thermal road assisted ground source heat pump system during non-heating season. Solar Energy, 2021, 221, 10-29.	2.9	9
68	Core-shell microstructured nanocomposites for synergistic adjustment of environmental temperature and humidity. Scientific Reports, 2016, 6, 36974.	1.6	8
69	Thermal performance of energy diaphragm wall (EDW) adjacent to air-conditioned space from the underground-engineering perspective. Geothermics, 2021, 91, 102044.	1.5	8
70	Comparative numerical study of aerodynamic heating and performance of transonic hyperloop pods with different noses. Case Studies in Thermal Engineering, 2022, 29, 101701.	2.8	8
71	Optimization of falling film thermosyphons bundle arrangement for large-scale cooling applications by genetic algorithm. Applied Thermal Engineering, 2020, 169, 114892.	3.0	7
72	Melting and solidification performance in two horizontal shellâ€andâ€tube heat exchangers with different structures. International Journal of Energy Research, 2020, 44, 11288-11301.	2.2	7

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73	Buried water-phase change material storage for load shifting: A parametric study. Energy and Buildings, 2020, 227, 110428.	3.1	6
74	Porosity reduction of polyethylene glycol phase change materials by using nanoscale thermalâ€energyâ€conducting medium during crystallization process. Journal of Applied Polymer Science, 2017, 134, 45446.	1.3	5
75	Experimental Investigation on Performance Comparison of Solar Water Heating-Phase Change Material System and Solar Water Heating System. Energies, 2019, 12, 2347.	1.6	5
76	Feasibility study on temperature control with phase change material in intensive heat-releasing space during emergency power failure: A case analysis of information system room. Energy and Buildings, 2021, 230, 110482.	3.1	4
77	Operating performance of multiâ€modular waterâ€phase change material tanks for emergency cooling in an underground shelter. International Journal of Energy Research, 2022, 46, 4609-4629.	2.2	2
78	A two-region model combing numerical simulation and analytical solution for U tube ground heat exchanger. , 2010, , .		1
79	Stable Li metal anode in a lithiophilic shuttle. Nanoscale, 2022, 14, 3935-3945.	2.8	1
80	Numerical investigation on thermal performance of vertical U buried pipe heat exchanger with intermittent operation. , 2010, , .		0
81	Investigation on the thermal performance of the diaphragm wall in deep buried engineering: a simulation study. IOP Conference Series: Materials Science and Engineering, 2019, 609, 052040.	0.3	0
82	Compact Interlaminar Lithium Plating Realized by Silver Nanowires Imbedded in a Stacked Graphene Host with a Rational Void Space. ACS Applied Energy Materials, 2022, 5, 3100-3109.	2.5	0