A review of the applications of phase change materials i generation in different temperature ranges

Applied Energy 220, 242-273

DOI: 10.1016/j.apenergy.2018.03.005

Citation Report

#	Article	IF	CITATIONS
1	Comparative study of phase change phenomenon in high temperature cascade latent heat energy storage system using conduction and conduction-convection models. Solar Energy, 2018, 176, 627-637.	2.9	35
2	PCM-based Thermal Buffer Coating for High Temperature Applications. , 2018, , .		O
3	Concentration dependent melting enthalpy, crystallization velocity, and thermal cycling stability of pinacone hexahydrate. Thermochimica Acta, 2018, 670, 142-147.	1.2	2
4	Potential of Thermal Energy Storage Using Coconut Oil for Air Temperature Control. Buildings, 2018, 8, 95.	1.4	31
5	Form-stable phase change materials with enhanced thermal stability and fire resistance via the incorporation of phosphorus and silicon. Materials and Design, 2018, 160, 763-771.	3.3	56
6	Synthesis and Investigation of Thermal Properties of Highly Pure Carboxylic Fatty Esters to Be Used as PCM. Applied Sciences (Switzerland), 2018, 8, 1069.	1.3	26
7	Facile Synthesis of Al@Al ₂ O ₃ Microcapsule for High-Temperature Thermal Energy Storage. ACS Sustainable Chemistry and Engineering, 2018, 6, 13226-13236.	3.2	30
8	A novel method for determining the melting point, fusion latent heat, specific heat capacity and thermal conductivity of phase change materials. International Journal of Heat and Mass Transfer, 2018, 127, 457-468.	2.5	15
9	One-step fabrication of fatty acids/nano copper/polyester shape-stable composite phase change material for thermal energy management and storage. Applied Energy, 2018, 228, 1911-1920.	5.1	56
10	Preparation and Performance Analysis of Modified Sodium Acetate Trihydrate. Materials, 2018, 11, 1016.	1.3	16
11	A review on macro-encapsulated phase change material for building envelope applications. Building and Environment, 2018, 144, 281-294.	3.0	204
12	Study on a high-performance photocatalytic-Trombe wall system for space heating and air purification. Applied Energy, 2018, 226, 365-380.	5.1	67
13	Passive cooling through phase change materials in buildings. A critical study of implementation alternatives. Applied Energy, 2019, 254, 113658.	5.1	42
14	A promising form-stable phase change material prepared using cost effective pinecone biochar as the matrix of palmitic acid for thermal energy storage. Scientific Reports, 2019, 9, 11535.	1.6	68
15	Recent developments in the synthesis of microencapsulated and nanoencapsulated phase change materials. Journal of Energy Storage, 2019, 24, 100821.	3.9	75
16	Design of diatomite-based hydrated salt composites with low supercooling degree and enhanced heat transfer for thermal energy storage. International Journal of Energy Research, 2019, 43, 7058-7074.	2.2	25
17	Potential of macroencapsulated PCM for thermal energy storage in buildings: A comprehensive review. Construction and Building Materials, 2019, 225, 723-744.	3.2	249
18	Heat-storing phase-change materials: influence of thermophysical properties on stabilization of exhaust temperature. Materials Today: Proceedings, 2019, 19, 1831-1834.	0.9	2

#	Article	IF	Citations
19	Experimental study on the performance of a novel RC-PCM-wall. Energy and Buildings, 2019, 199, 297-310.	3.1	44
20	Analysis of energy-matching performance and suitable users of conventional CCHP systems coupled with different energy storage systems. Energy Conversion and Management, 2019, 200, 112093.	4.4	29
21	A numerical investigation of the effects of metal foam characteristics and heating/cooling conditions on the phase change kinetic of phase change materials embedded in metal foam. Journal of Energy Storage, 2019, 26, 100985.	3.9	24
22	Kinetics of freezing and melting of encapsulated phase change materials with effective convection: Experiments and simulations. Numerical Heat Transfer; Part A: Applications, 2019, 76, 909-924.	1.2	2
23	Experimental characterisation of a novel thermal energy storage based on open-cell copper foams immersed in organic phase change material. Energy Conversion and Management, 2019, 200, 112101.	4.4	24
24	Thermal state-of-expansion or melting of phase change material based heat sink for underwater battery power system. Journal of Energy Storage, 2019, 26, 100956.	3.9	15
25	Thermal analysis of an inclined heat sink with finned PCM container for solar applications. International Journal of Heat and Mass Transfer, 2019, 144, 118679.	2.5	75
26	Enhanced thermal conductivity of form-stable phase change materials using carbon nanofiber-expanded graphite hybrid structure. Materials Research Express, 2019, 6, 125503.	0.8	14
27	Vertical temperature distribution characteristics and adjustment methods of a Trombe wall. Building and Environment, 2019, 165, 106386.	3.0	12
28	A comprehensive review of recent advances in materials aspects of phase change materials in thermal energy storage. Energy Procedia, 2019, 161, 385-394.	1.8	94
29	Functionalized mesoporous silica as matrix for shape-stabilized phase change materials. International Journal of Heat and Mass Transfer, 2019, 144, 118699.	2.5	30
30	A review of performance investigation and enhancement of shell and tube thermal energy storage device containing molten salt based phase change materials for medium and high temperature applications. Applied Energy, 2019, 255, 113806.	5.1	111
31	Performance of conical ammonia dissociation reactors for solar thermochemical energy storage. Applied Energy, 2019, 255, 113785.	5.1	14
32	Parametric investigation to assess the melt fraction and melting time for a latent heat storage material based vertical shell and tube heat exchanger. Solar Energy, 2019, 193, 360-371.	2.9	31
33	Effects of thermal conductivity and density on phase change materials-based thermal energy storage systems. Energy, 2019, 172, 580-591.	4.5	25
34	Development and characterization of novel and stable silicon nanoparticles-embedded PCM-in-water emulsions for thermal energy storage. Applied Energy, 2019, 238, 1407-1416.	5.1	57
35	Paraffin@graphene/silicon rubber form-stable phase change materials for thermal energy storage. Fullerenes Nanotubes and Carbon Nanostructures, 2019, 27, 626-631.	1.0	21
36	Phase change materials embedded in porous matrices for hybrid thermal energy storages: Experimental results and modeling. International Journal of Refrigeration, 2019, 106, 266-277.	1.8	35

#	Article	IF	Citations
37	Development of a new methodology for validating thermal storage media: Application to phase change materials. International Journal of Energy Research, 2019, 43, 6521-6541.	2.2	12
38	Simulation and performance analysis of an active PCM-heat exchanger intended for building operation optimization. Energy and Buildings, 2019, 199, 47-61.	3.1	47
39	Design of MtNS/SA microencapsulated phase change materials for enhancement of thermal energy storage performances: Effect of shell thickness. Solar Energy Materials and Solar Cells, 2019, 200, 109935.	3.0	31
40	Heat transfer reduction in buildings by embedding phase change material in multi-layer walls: Effects of repositioning, thermophysical properties and thickness of PCM. Energy Conversion and Management, 2019, 195, 43-56.	4.4	206
41	Graphene/SiO2/n-octadecane nanoencapsulated phase change material with flower like morphology, high thermal conductivity, and suppressed supercooling. Applied Energy, 2019, 250, 98-108.	5.1	96
42	Analysis of underfloor electrical heating system integrated with coconut oil-PCM plates. Applied Thermal Engineering, 2019, 158, 113778.	3.0	41
43	Investigation of Lactones as Innovative Bio-Sourced Phase Change Materials for Latent Heat Storage. Molecules, 2019, 24, 1300.	1.7	11
44	A numerical and experimental analysis of an integrated TEG-PCM power enhancement system for photovoltaic cells. Applied Energy, 2019, 248, 688-701.	5.1	99
45	High energy-density and power-density thermal storage prototype with hydrated salt for hot water and space heating. Applied Energy, 2019, 248, 406-414.	5.1	56
46	Analysis of Bio-Based Fatty Esters PCM's Thermal Properties and Investigation of Trends in Relation to Chemical Structures. Applied Sciences (Switzerland), 2019, 9, 225.	1.3	22
47	Carbon nanotube-Cu foam hybrid reinforcements in composite phase change materials with enhanced thermal conductivity. Materials and Design, 2019, 172, 107709.	3.3	56
48	Techno-economic analysis of screening metal hydride pairs for a 910 MWhth thermal energy storage system. Applied Energy, 2019, 242, 148-156.	5.1	21
49	Thermal management of electronic devices and concentrator photovoltaic systems using phase change material heat sinks: Experimental investigations. Renewable Energy, 2019, 141, 322-339.	4.3	63
50	Energetic and exergetic performance evaluation of a solar cooling and heating system assisted with thermal storage. Energy, 2019, 176, 816-829.	4.5	35
51	Crystallization Behavior of Pure n-Alkane (n-Nonadecane) in a form of Nanoemulsion. International Journal of Nanoscience, 2019, 18, 1940032.	0.4	9
52	Graphene-based phase change composites for energy harvesting and storage: State of the art and future prospects. Carbon, 2019, 148, 441-480.	5.4	126
53	The investigations on the heat transfer in thermal energy storage with time-dependent heat flux for power plants. Energy, 2019, 175, 1209-1221.	4.5	8
54	Energy saving performance assessment and lessons learned from the operation of an active phase change materials system in a multi-storey building in Melbourne. Applied Energy, 2019, 238, 1582-1595.	5.1	53

#	ARTICLE	IF	Citations
55	The thermal performances of a refrigerator incorporating a phase change material. International Journal of Refrigeration, 2019, 100, 255-264.	1.8	47
56	Introduction to the Application of Phase Change Materials under Tropical Climate of Panama. , 2019, , .		2
57	Preparation and Characteristics of Microencapsulated Lauric Acid as Composite Thermal Energy Storage Materials. Medziagotyra, 2019, 26, 88-93.	0.1	3
58	Latent Thermal Energy Storage. Green Energy and Technology, 2019, , 9-13.	0.4	1
59	Study of Future Refrigerant for Vapor Compression Refrigeration Systems. Lecture Notes in Mechanical Engineering, 2019, , 415-428.	0.3	4
60	Studies on optimum fins number in PCM-based heat sinks. Energy, 2019, 171, 1088-1099.	4.5	150
61	A new type of heat storage system using the motion of phase change materials in an elliptical-shaped capsule. Energy Conversion and Management, 2019, 182, 508-519.	4.4	38
62	Innovative design of superhydrophobic thermal energy-storage materials by microencapsulation of n-docosane with nanostructured ZnO/SiO2 shell. Applied Energy, 2019, 237, 549-565.	5.1	86
63	Maximization of performance in multi-tube latent heat storage $\hat{a}\in$ Optimization of fins topology, effect of materials selection and flow arrangements. Energy, 2020, 203, 114797.	4.5	53
64	Acetamide for latent heat storage: Thermal stability and metal corrosivity with varying thermal cycles. Renewable Energy, 2020, 145, 1932-1940.	4.3	12
65	Numerical modeling and experimental validation of a phase change material-based compact cascade cooling system for enhanced thermal management. Applied Thermal Engineering, 2020, 164, 114470.	3.0	19
66	Preparation and performance of modified expanded graphite/eutectic salt composite phase change cold storage material. International Journal of Refrigeration, 2020, 110, 178-186.	1.8	41
67	Design of 3D-network montmorillonite nanosheet/stearic acid shape-stabilized phase change materials for solar energy storage. Solar Energy Materials and Solar Cells, 2020, 204, 110233.	3.0	78
68	Potential of microencapsulated PCM for energy savings in buildings: A critical review. Sustainable Cities and Society, 2020, 53, 101884.	5.1	97
69	Numerical thermal evaluation of laminated binary microencapsulated phase change material drywall systems. Building Simulation, 2020, 13, 89-98.	3.0	33
70	Rapid production of few layer graphene for energy storage via dry exfoliation of expansible graphite. Composites Science and Technology, 2020, 185, 107895.	3.8	16
71	Phase change material thermal energy storage systems for cooling applications in buildings: A review. Renewable and Sustainable Energy Reviews, 2020, 119, 109579.	8.2	244
72	Energy and exergy analyses of latent heat storage unit positioned at different orientations – An experimental study. Energy, 2020, 194, 116924.	4.5	50

#	Article	IF	Citations
73	Experimental evaluation of the melting behaviours of paraffin within a hemicylindrical storage cell. International Communications in Heat and Mass Transfer, 2020, 111, 104476.	2.9	17
74	Latest developments on TES and CSP technologies – Energy and environmental issues, applications and research trends. Applied Thermal Engineering, 2020, 167, 114806.	3.0	162
75	Experimental assessment of a full scale prototype thermal energy storage tank using paraffin for space heating application. International Journal of Thermofluids, 2020, 1-2, 100003.	4.0	14
76	Role of Hydrogen Bonding in Phase Change Materials. Crystal Growth and Design, 2020, 20, 1285-1291.	1.4	24
77	Highly thermally conductive phase change composites for thermal energy storage featuring shape memory. Composites Part A: Applied Science and Manufacturing, 2020, 129, 105706.	3.8	47
78	Research progress on power battery cooling technology for electric vehicles. Journal of Energy Storage, 2020, 27, 101155.	3.9	207
79	Ultrafast Photonic PCR Based on Photothermal Nanomaterials. Trends in Biotechnology, 2020, 38, 637-649.	4.9	96
80	Design and experimental analysis of an Integral Collector Storage (ICS) prototype for DHW production. Applied Energy, 2020, 259, 114104.	5.1	13
81	Selection of a phase change material and its thickness for application in walls of buildings for solar-assisted steam curing of precast concrete. Renewable Energy, 2020, 150, 808-820.	4.3	29
82	Evaluation of water and paraffin PCM as storage media for use in thermal energy storage applications: A numerical approach. International Journal of Thermofluids, 2020, 1-2, 100006.	4.0	25
83	Three-dimensional graphitic hierarchical porous carbon/stearic acid composite as shape-stabilized phase change material for thermal energy storage. Applied Energy, 2020, 260, 114278.	5.1	76
84	Toward Tailoring Chemistry of Silica-Based Phase Change Materials for Thermal Energy Storage. IScience, 2020, 23, 101606.	1.9	28
85	A review of melting and freezing processes of PCM/nano-PCM and their application in energy storage. Energy, 2020, 211, 118698.	4.5	271
86	Impact of a Composite Trombe Wall Incorporating Phase Change Materials on the Thermal Behavior of an Individual House with Low Energy Consumption. Energies, 2020, 13, 4872.	1.6	12
87	Thermal performance augmentation in latent heat storage unit using spiral fin: An experimental analysis. Journal of Energy Storage, 2020, 31, 101776.	3.9	49
88	Thermal management and performance enhancement of domestic refrigerators and freezers via phase change materials: A review. Innovative Food Science and Emerging Technologies, 2020, 66, 102522.	2.7	23
89	Effects of acid leaching and organic intercalation on the thermophysical properties of paraffin/expanded vermiculite composite phase change materials. Applied Clay Science, 2020, 196, 105754.	2.6	20
90	Preparation, Morphology, and Thermal Performance of Microencapsulated Phase Change Materials with a MF/SiO ₂ Composite Shell. Energy & En	2.5	19

#	Article	IF	Citations
91	Triglycerides as Novel Phase-Change Materials: A Review and Assessment of Their Thermal Properties. Molecules, 2020, 25, 5572.	1.7	16
92	Designing of latent heat thermal energy storage systems using metal porous structures for storing solar energy. Journal of Energy Storage, 2020, 32, 101990.	3.9	20
93	Techno-Economic Analysis of a Heat Pump Cycle Including a Three-Media Refrigerant/Phase Change Material/Water Heat Exchanger in the Hot Superheated Section for Efficient Domestic Hot Water Generation. Applied Sciences (Switzerland), 2020, 10, 7873.	1.3	8
94	Influence of molecular mass of PEG on rheological behaviour of MWCNT-based nanofluids for thermal energy storage. Journal of Molecular Liquids, 2020, 318, 113965.	2.3	15
95	Preparation and characterization of isopropyl palmitate/expanded perlite and isopropyl palmitate/nanoclay composites as form-stable thermal energy storage materials for buildings. Journal of Energy Storage, 2020, 32, 101679.	3.9	22
96	Characterisation and stability analysis of eutectic fatty acid as a low cost cold energy storage phase change material. Journal of Energy Storage, 2020, 31, 101708.	3.9	16
97	Flow and heat transfer characteristics of microencapsulated phase change slurry in thermal energy systems: A review. Renewable and Sustainable Energy Reviews, 2020, 134, 110101.	8.2	47
98	Paraffin/graphene sponge composite as a shape-stabilized phase change material for thermal energy storage. Pigment and Resin Technology, 2021, 50, 412-418.	0.5	6
99	Parametric analysis and design optimisation of PCM thermal energy storage system for space cooling of buildings. Energy and Buildings, 2020, 224, 110288.	3.1	51
100	Nanoencapsulation of phase change materials (PCMs) and their applications in various fields for energy storage and management. Advances in Colloid and Interface Science, 2020, 283, 102226.	7.0	90
101	Exploration of Basalt Glasses as High-Temperature Sensible Heat Storage Materials. ACS Omega, 2020, 5, 19236-19246.	1.6	23
102	Energy-efficient mitigation measures for improving indoor thermal comfort during heat waves. Applied Energy, 2020, 278, 115620.	5.1	24
103	Cryogenic conditioning of microencapsulated phase change material for thermal energy storage. Scientific Reports, 2020, 10, 18353.	1.6	9
104	Forward Selection Methodology for Phase Change Material Composite Optimization. , 2020, , .		2
105	Study of the physicochemical characteristics of dispersions of n-alkanes C23H48 and C28H58 in water: zeta potential and temperatures of phase transitions. Russian Chemical Bulletin, 2020, 69, 1306-1310.	0.4	5
106	A Study of Manufacturing Processes of Composite Form-Stable Phase Change Materials Based on Ca(NO3)2–NaNO3 and Expanded Graphite. Materials, 2020, 13, 5368.	1.3	9
107	Experimental Analysis on the Thermal Management of Lithium-Ion Batteries Based on Phase Change Materials. Applied Sciences (Switzerland), 2020, 10, 7354.	1.3	14
108	Study on solar energy utilization characteristics of a solar building integrated wall. Applied Thermal Engineering, 2020, 175, 115289.	3.0	22

#	ARTICLE	IF	CITATIONS
109	A novel polyaniline (PANI)/ paraffin wax nano composite phase change material: Superior transition heat storage capacity, thermal conductivity and thermal reliability. Solar Energy, 2020, 204, 448-458.	2.9	95
110	Investigation on the thermal performance of the novel phase change materials wall with radiative cooling. Applied Thermal Engineering, 2020, 176, 115479.	3.0	28
111	Thermal and Physical Characterization of PEG Phase Change Materials Enhanced by Carbon-Based Nanoparticles. Nanomaterials, 2020, 10, 1168.	1.9	40
112	Design of a Passive Downdraught Evaporative Cooling Windcatcher (PDEC-WC) System for Greenhouses in Hot Climates. Energies, 2020, 13, 2934.	1.6	22
113	Long-term thermophysical behavior of paraffin wax and paraffin wax/polyaniline (PANI) composite phase change materials. Journal of Energy Storage, 2020, 31, 101568.	3.9	44
114	Preparation and Properties of Lauryl Alcohol-Caprylic Acid Eutectics/Activated Charcoal Composites as Shape-stabilized Phase Change Materials for Cold Energy Storage. Medziagotyra, 2020, 26, 300-307.	0.1	0
115	Investigating the performance of a thermal energy storage unit with paraffin as phase change material, targeting buildings' cooling needs: an experimental approach. International Journal of Thermofluids, 2020, 3-4, 100027.	4.0	14
116	Thermoplastic Elastomer Phase Changing Materials for Stiffness Modulation. Journal of Macromolecular Science - Physics, 2020, 59, 390-398.	0.4	1
117	Conversion and storage of solar energy in the forms of liquid fuel and electricity in a hybrid energy storage system using methanol and phase change materials. Energy Conversion and Management, 2020, 209, 112669.	4.4	32
118	Determination of optimal compositions and properties for phase change materials in a solar electric generating station. Solar Energy Materials and Solar Cells, 2020, 210, 110506.	3.0	9
119	Phase Change Materials in Energy: Current State of Research and Potential Applications. Chemistry and Technology of Fuels and Oils, 2020, 55, 733-741.	0.2	8
120	Microencapsulated phase change material via Pickering emulsion stabilized by graphene oxide for photothermal conversion. Journal of Materials Science, 2020, 55, 7731-7742.	1.7	51
121	Experimental and numerical assessment of using coconut oil as a phaseâ€change material for unconditioned buildings. International Journal of Energy Research, 2020, 44, 5177-5196.	2.2	14
122	The Impact of Additives on the Main Properties of Phase Change Materials. Energies, 2020, 13, 3064.	1.6	12
123	Thermal Performance of Mortars Based on Different Binders and Containing a Novel Sustainable Phase Change Material (PCM). Materials, 2020, 13, 2055.	1.3	21
124	Determination of phase transition temperatures (melting, crystallization, rotator phases) ofn-alkanes by the optical method. IOP Conference Series: Materials Science and Engineering, 2020, 848, 012044.	0.3	3
125	Preparation and Investigation of NiTi Alloy Phase-Change Heat Storage Asphalt Mixture. Journal of Materials in Civil Engineering, 2020, 32, .	1.3	11
126	Experimental and numerical characterization of sub-zero phase change materials for cold thermal energy storage. Applied Energy, 2020, 275, 115131.	5.1	23

#	ARTICLE	IF	CITATIONS
127	Experimental comparison of the operation of PCM-based copper heat exchangers with different configurations. Applied Thermal Engineering, 2020, 172, 115138.	3.0	25
128	Ultrathin-wall mesoporous surface carbon foam stabilized stearic acid as a desirable phase change material for thermal energy storage. Journal of Industrial and Engineering Chemistry, 2020, 85, 208-218.	2.9	28
129	The Application of Courtyard and Settlement Layouts of the Traditional Diyarbakır Houses to Contemporary Houses: A Case Study on the Analysis of Energy Performance. Energies, 2020, 13, 587.	1.6	6
130	Development of heat transfer enhancement of a novel composite phase change material with adjustable phase change temperature. Solar Energy Materials and Solar Cells, 2020, 210, 110457.	3.0	23
131	Evaluation of volume change in phase change materials during their phase transition. Journal of Energy Storage, 2020, 28, 101206.	3.9	31
132	Seasonal and annual performance analysis of PCM-integrated building brick under the climatic conditions of Marmara region. Journal of Thermal Analysis and Calorimetry, 2020, 141, 613-624.	2.0	72
133	Thermal energy storage using absorption cycle and system: A comprehensive review. Energy Conversion and Management, 2020, 206, 112482.	4.4	79
134	Exploiting new biorefinery models using non-conventional yeasts and their implications for sustainability. Bioresource Technology, 2020, 309, 123374.	4.8	26
135	Natural convection of nanoencapsulated phase change suspensions inside a local thermal non-equilibrium porous annulus. Journal of Thermal Analysis and Calorimetry, 2020, 141, 1801-1816.	2.0	10
136	Growth of the Phase Change Enthalpy Induced by the Crystal Transformation of an Inorganic–Organic Eutectic Mixture of Magnesium Nitrate Hexahydrate–Glutaric Acid. Industrial & & & & & & & & & & & & & & & & & & &	1.8	23
137	Numerical investigation on conventional and PCM heat sinks under constant and variable heat flux conditions. Clean Technologies and Environmental Policy, 2021, 23, 1105-1120.	2.1	13
138	Temperature control of star sensor baffle using 3D printing and PCM thermal energy storage technology. International Journal of Heat and Mass Transfer, 2021, 165, 120644.	2.5	22
139	Preparation and characterization of capric-palmitic acids eutectics/silica xerogel/exfoliated graphite nanoplatelets form-stable phase change materials. Journal of Energy Storage, 2021, 34, 102016.	3.9	18
140	Simulation of eutectic plates in medium refrigerated transport. Journal of Engineering, Design and Technology, 2021, 19, 62-80.	1.1	5
141	A review on phase change materials for thermal energy storage in buildings: Heating and hybrid applications. Journal of Energy Storage, 2021, 33, 101913.	3.9	143
142	Recent development on heat transfer and various applications of phase-change materials. Journal of Cleaner Production, 2021, 287, 124432.	4.6	89
143	Empirical investigation to explore potential gains from the amalgamation of phase changing materials (PCMs) and wood shavings. Energy and Built Environment, 2021, 2, 315-326.	2.9	13
144	Thermal performance of a 3D printed lattice-structure heat sink packaging phase change material. Chinese Journal of Aeronautics, 2021, 34, 373-385.	2.8	28

#	Article	IF	Citations
145	Synthesis of high latent heat lauric acid/silica microcapsules by interfacial polymerization method for thermal energy storage. Journal of Energy Storage, 2021, 33, 102059.	3.9	38
146	Latent heat thermal energy storage: A bibliometric analysis explicating the paradigm from 2000–2019. Journal of Energy Storage, 2021, 33, 102027.	3.9	18
147	Thermal performance of galactitol/mannitol eutectic mixture/expanded graphite composite as phase change material for thermal energy harvesting. Journal of Energy Storage, 2021, 34, 101997.	3.9	39
148	Melting performance enhancement of PCM based thermal energy storage system using multiple tubes and modified shell designs. Journal of Energy Storage, 2021, 33, 102161.	3.9	73
149	A state-of-the-art review of the application of phase change materials (PCM) in Mobilized-Thermal Energy Storage (M-TES) for recovering low-temperature industrial waste heat (IWH) for distributed heat supply. Renewable Energy, 2021, 168, 1040-1057.	4.3	117
150	Preparation, characterization and thermophysical properties investigation of A70/polyaniline nanocomposite phase change material for medium temperature solar applications. Energy and Built Environment, 2021, 2, 271-277.	2.9	21
151	Latest progress on nanotechnology aided boiling heat transfer enhancement: A review. Energy, 2021, 215, 119114.	4.5	44
152	Review on performance enhancement of solar absorption refrigeration system using various designs and phase change materials. Materials Today: Proceedings, 2021, 37, 3332-3337.	0.9	10
153	An investigation on the effect of PCM incorporation in refrigerator through CFD simulation. Materials Today: Proceedings, 2021, 46, 5555-5564.	0.9	10
154	Paraffin/SiC as a Novel Composite Phase-Change Material for a Lithium-Ion Battery Thermal Management System. Transactions of Tianjin University, 2021, 27, 55-63.	3.3	6
155	Experimental investigation of multiâ€stage solar still using phaseâ€change material. Environmental Progress and Sustainable Energy, 2021, 40, .	1.3	6
156	A comprehensive review of heat transfer intensification methods for latent heat storage units. Energy Storage, 2021, 3, e127.	2.3	32
157	Simulation of Multi-area Integrated Energy for Cooling, Heating and Power Based on Large Data Analysis. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 460-471.	0.2	0
158	Reviewing the Exergy Analysis of Solar Thermal Systems Integrated with Phase Change Materials. Energies, 2021, 14, 724.	1.6	18
159	Improving Cooling Performance of Deep Freezer by Incorporating Graphene Oxide Nanoparticles Mixed with Phase Change Materials During a Power Outage., 2021,, 485-492.		2
160	Review regarding defrosting methods for refrigeration and heat pump systems. E3S Web of Conferences, 2021, 286, 01012.	0.2	2
161	Active Thermal Energy Storage (TES) With Phase Change Materials (PCM) for High Temperature. , 2022, , 470-478.		1
162	The Use of Capsuled Paraffin Wax in Low-Temperature Thermal Energy Storage Applications: An Experimental and Numerical Investigation. Energies, 2021, 14, 538.	1.6	8

#	Article	IF	CITATIONS
163	Energy Utilization Reduction of Domestic Refrigerator Using Phase Change Materials. Lecture Notes in Mechanical Engineering, 2021, , 695-706.	0.3	1
164	Effect of variation in thickness of phase change material on temperature across the composite building wall. Materials Today: Proceedings, 2021, 46, 10221-10226.	0.9	2
165	Application of Phase Change Materials in Construction Materials for Thermal Energy Storage Systems in Buildings. Impact of Meat Consumption on Health and Environmental Sustainability, 2021, , 1-20.	0.4	0
166	Investigations on phase change materials for enhancement of thermal conductivity. Thermal Science, 2022, 26, 955-961.	0.5	1
167	Review on Thermal Performance Enhancement Techniques of Latent Heat Thermal Energy Storage (LHTES) System for Solar and Waste Heat Recovery Applications. Energy, Environment, and Sustainability, 2021, , 411-438.	0.6	4
168	Active TES With PCM for Refrigeration Applications. , 2021, , .		2
169	Applications and technological challenges for heat recovery, storage and utilisation with latent thermal energy storage. Applied Energy, 2021, 283, 116277.	5.1	131
170	Preparation and characterization of paraffin/palygorskite shape-stable composite phase change materials for thermal energy storage. Journal of Energy Storage, 2021, 34, 102189.	3.9	23
171	Recent frontiers in solar energy storage via nanoparticles enhanced phase change materials: Succinct review on basics, applications, and their environmental aspects. Energy Storage, 2021, 3, e238.	2.3	12
172	A comprehensive review of cold chain logistics for fresh agricultural products: Current status, challenges, and future trends. Trends in Food Science and Technology, 2021, 109, 536-551.	7.8	118
173	Improving transient performance of thermoelectric generator by integrating phase change material. Energy, 2021, 219, 119648.	4.5	36
175	Thermal Energy Harvest and Reutilization by the Combination of Thermal Conducting Reactive Mesogens and Heat-Storage Mesogens. ACS Applied Materials & Storage Storage Mesogens. ACS Applied Materials & Storage Mesogens. ACS Applied Mesogens. ACS	4.0	4
176	Sodium Neutralized Sulfated Polymers as Polymeric Salt Hydrates for Thermal Energy Storage. Journal of the Turkish Chemical Society, Section A: Chemistry, 0, , 461-470.	0.4	1
177	Novel rotary regenerative heat exchanger using cascaded phase change material capsules. Applied Thermal Engineering, 2021, 188, 116619.	3.0	13
178	A comprehensive review on sub-zero temperature cold thermal energy storage materials, technologies, and applications: State of the art and recent developments. Applied Energy, 2021, 288, 116555.	5.1	72
179	Toxicity Risks of Nanomaterials Used in the Building Construction Materials. Current Nanotoxicity and Prevention, 2021, 1, 26-43.	0.0	1
180	What about greener phase change materials? A review on biobased phase change materials for thermal energy storage applications. International Journal of Thermofluids, 2021, 10, 100081.	4.0	65
181	Phase change materials in solar domestic hot water systems: A review. International Journal of Thermofluids, 2021, 10, 100075.	4.0	83

#	Article	IF	CITATIONS
182	Effect of Phase Change Materials on the Thermal Performance of Residential Building Located in Different Cities of a Tropical Rainforest Climate Zone. Energies, 2021, 14, 2699.	1.6	3
183	Recent developments of thermal energy storage applications in the built environment: A bibliometric analysis and systematic review. Applied Thermal Engineering, 2021, 189, 116666.	3.0	72
184	Experimental Investigation of a Novel Solar Energy Storage Heating Radiator with Phase Change Material. ACS Omega, 2021, 6, 13601-13610.	1.6	3
185	Residential net-zero energy buildings: Review and perspective. Renewable and Sustainable Energy Reviews, 2021, 142, 110859.	8.2	128
186	Design of an H2O-LiBr absorption system using PCMs and powered by automotive exhaust gas. Applied Thermal Engineering, 2021, 191, 116881.	3.0	21
187	Facile technique to encapsulate phase change material in an amphiphilic polymeric matrix for thermal energy storage. Applied Energy, 2021, 292, 116917.	5.1	29
188	Performance Evaluation of Coupled Thermal Enhancement through Novel Wire-Wound Fins Design and Graphene Nano-Platelets in Shell-and-Tube Latent Heat Storage System. Energies, 2021, 14, 3743.	1.6	6
189	Guanidinium Organic Salts as Phaseâ€Change Materials for Renewable Energy Storage. ChemSusChem, 2021, 14, 2757-2762.	3.6	14
190	A novel solar hydrogen production system integrating high temperature electrolysis with ammonia based thermochemical energy storage. Energy Conversion and Management, 2021, 237, 114143.	4.4	33
191	Emerging radiative materials and prospective applications of radiative sky cooling - A review. Renewable and Sustainable Energy Reviews, 2021, 144, 110910.	8.2	42
192	Introduction of eicosane into biochar derived from softwood and wheat straw: Influence of porous structure and surface chemistry. Chemical Engineering Journal, 2021, 415, 128887.	6.6	52
193	Solar drying of medicinal herbs: A review. Solar Energy, 2021, 223, 415-436.	2.9	20
194	Experimental and Numerical Analyses of Thermal Storage Tile-Bricks for Efficient Thermal Management of Buildings. Buildings, 2021, 11, 357.	1.4	3
195	Experimental and Numerical Investigation of Composite Phase Change Materials for Building Energy Saving. Frontiers in Energy Research, 2021, 9, .	1.2	1
196	Carbonized wood loaded with carbon dots for preparation long-term shape-stabilized composite phase change materials with superior thermal energy conversion capacity. Renewable Energy, 2021, 174, 19-30.	4.3	38
197	Experimental and numerical study of an evaporator with integrated latent heat storage for a compressed air dryer. Applied Thermal Engineering, 2021, 195, 117170.	3.0	4
198	Promising Nanoparticle-Based Heat Transfer Fluids—Environmental and Techno-Economic Analysis Compared to Conventional Fluids. International Journal of Molecular Sciences, 2021, 22, 9201.	1.8	19
199	An exfoliated montmorillonite as the nanosheet nucleating agent in the subzero phase change material. International Journal of Refrigeration, 2021, 129, 88-96.	1.8	4

#	Article	IF	CITATIONS
200	Experimental Study on the Use of Enhanced Coconut Oil and Paraffin Wax Phase Change Material in Active Heating Using Advanced Modular Prototype. Journal of Energy Storage, 2021, 41, 102815.	3.9	16
201	Exploration on two-stage latent thermal energy storage for heat recovery in cryogenic air separation purification system. Energy, 2022, 239, 122111.	4.5	15
202	Selection and testing of phase change materials in the physical models of buildings for heating and curing of construction elements made of precast concrete. Solar Energy, 2021, 226, 309-318.	2.9	9
203	A Fast-Reduced Model for an Innovative Latent Thermal Energy Storage for Direct Integration in Heat Pumps. Applied Sciences (Switzerland), 2021, 11, 8972.	1.3	2
204	Leakage-Proof and Malleable Polyethylene Wax Vitrimer Phase Change Materials for Thermal Interface Management. ACS Applied Energy Materials, 2021, 4, 11173-11182.	2.5	19
205	Study of the application of PCM to thermal insulation of UUV hulls using Network Simulation Method. AEJ - Alexandria Engineering Journal, 2021, 60, 4627-4637.	3.4	9
206	Novel smart textile with ultraviolet shielding and thermo-regulation fabricated via electrospinning. Journal of Energy Storage, 2021, 42, 103094.	3.9	24
207	Phase change material based advance solar thermal energy storage systems for building heating and cooling applications: A prospective research approach. Sustainable Energy Technologies and Assessments, 2021, 47, 101318.	1.7	28
208	Comparison of metal oxide and composite phase change material based nanofluids as coolants in mini channel heat sink. International Communications in Heat and Mass Transfer, 2021, 127, 105541.	2.9	10
209	Thermal energy storage in a confined cylindrical heat source filled with phase change materials. International Journal of Heat and Mass Transfer, 2021, 178, 121603.	2.5	9
210	Numerical study of the feasibility of coupling vacuum isolation panels with phase change material for enhanced energy-efficient buildings. Energy and Buildings, 2021, 251, 111369.	3.1	2
211	Heat transfer enhancement of microencapsulated phase change material by addition of nanoparticles for a latent heat thermal energy storage system. Energy Reports, 2021, 7, 4930-4940.	2.5	13
212	A technical review on composite phase change material based secondary assisted battery thermal management system for electric vehicles. Journal of Cleaner Production, 2021, 322, 129079.	4.6	99
213	Experimental demonstration of an air-source heat pump application using an integrated phase change material storage as a desuperheater for domestic hot water generation. Applied Energy, 2022, 305, 117890.	5.1	19
214	Phase change heat transfer in an L-shape heatsink occupied with paraffin-copper metal foam. Applied Thermal Engineering, 2020, 177, 115493.	3.0	45
215	Effects of graphite microstructure evolution on the anisotropic thermal conductivity of expanded graphite/paraffin phase change materials and their thermal energy storage performance. International Journal of Heat and Mass Transfer, 2020, 155, 119853.	2.5	64
216	A Hybrid Decision-Making Method for the Selection of a Phase Change Material for Thermal Energy Storage. Journal of Thermal Science and Engineering Applications, 2020, 12, .	0.8	22
217	Optimization of Fin Parameters to Reduce Entropy Generation and Melting Time of a Latent Heat Storage Unit. Journal of Solar Energy Engineering, Transactions of the ASME, 2020, 142, .	1.1	19

#	Article	IF	CITATIONS
218	Performance Evaluation of an Active PCM Thermal Energy Storage System for Space Cooling in Residential Buildings. Environmental and Climate Technologies, 2019, 23, 74-89.	0.5	17
219	Development and testing of a PCM enhanced domestic refrigerator with use of miniature DC compressor for weak/off grid locations. International Journal of Green Energy, 2022, 19, 1118-1131.	2.1	9
220	Phase Change Materials. Advances in Material Research and Technology, 2020, , 205-232.	0.3	0
221	Heat and Mass Transfer in the Food, Energy, and Water Nexus—A Review. Journal of Heat Transfer, 2020, 142, .	1.2	9
222	The Role of Phase Change Materials for Lifetime Heating of Buildings in Cold Climatic Conditions. Jurnal Alam Bina, 2020, 7, 81-96.	0.2	1
223	Environmental and economic life cycle assessment of thermal energy storage based on organic phase change material embedded in open-cell copper foams. Sustainable Production and Consumption, 2022, 29, 387-405.	5.7	11
224	Characterization of Unripe and Mature Avocado Seed Oil in Different Proportions as Phase Change Materials and Simulation of Their Cooling Storage. Molecules, 2021, 26, 107.	1.7	5
225	Preliminary design of safety system using phase change material for passively cooling of nuclear reactor containment building. Applied Thermal Engineering, 2022, 200, 117672.	3.0	7
226	A review of metallic materials for latent heat thermal energy storage: Thermophysical properties, applications, and challenges. Renewable and Sustainable Energy Reviews, 2022, 154, 111812.	8.2	82
227	A review of the thermal performance of vapor chambers and heat sinks: Critical heat flux, thermal resistances, and surface temperatures. International Journal of Heat and Mass Transfer, 2022, 183, 122108.	2.5	28
228	Melting and solidification analysis of phase change material-metal foam composite with expansion/shrinkage void in rectangular system. Journal of Energy Storage, 2022, 47, 103596.	3.9	6
229	Efficiency Enhancement of an Ammonia-Based Solar Thermochemical Energy Storage System Implemented with Hydrogen Permeation Membrane. Sustainability, 2021, 13, 12783.	1.6	1
230	Thermoelectric generators act as renewable energy sources. Cleaner Materials, 2021, 2, 100030.	1.9	29
231	Thermal properties of phase change materials reinforced with multi-dimensional carbon nanomaterials. International Journal of Heat and Mass Transfer, 2022, 183, 122166.	2.5	20
232	Chip-Scale Solar-Thermal-Electrical Power Generation. SSRN Electronic Journal, 0, , .	0.4	0
233	Introduction to Thermal Energy Storage and Technologies Definition. , 2021, , .		1
234	Effective PCM, insulation, natural and/or night ventilation techniques to enhance the thermal performance of buildings located in various climates – A review. Energy and Buildings, 2022, 258, 111840.	3.1	75
235	Experimental and simulation analysis on thermal stratification characteristics in solar storage tanks with phase change materials. Journal of Energy Storage, 2022, 46, 103722.	3.9	12

#	Article	IF	CITATIONS
236	Experimental study on thermal performance of a novel medium-high temperature packed-bed latent heat storage system containing binary nitrate. Applied Energy, 2022, 309, 118433.	5.1	31
237	Development and investigation of form-stable quaternary nitrate salt based composite phase change material with extremely low melting temperature and large temperature range for low-mid thermal energy storage. Energy Reports, 2022, 8, 1528-1537.	2.5	18
238	A Review for Phase Change Materials in Solar Cooling Systems. , 2021, , .		1
239	DYNAMIC SIMULATION AND RANKING OF USING RESIDENTIAL-SCALE SOLAR WATER HEATER IN IRAN. Journal of Environmental Engineering and Landscape Management, 2022, 30, 30-42.	0.4	8
240	Enhancing heat transfer in phase change material-based cooling: A review. AIP Conference Proceedings, 2022, , .	0.3	1
241	Effect of additives on the cyclic thermal stability and thermal properties of sodium acetate trihydrate as a phase change material: An experimental study. Solar Energy, 2022, 231, 473-483.	2.9	9
242	A reliable framework to predict the temperature dependent thermal conductivity of multicomponent salt based PCMs in both solid and liquid state. Solar Energy, 2022, 233, 309-325.	2.9	3
243	Single and Multi-phase Change Materials Used in Cooling Systems. International Journal of Thermophysics, 2022, 43, 1.	1.0	8
244	Experimental study of metalâ€oxide nanoparticles on the thermal properties of erythritol for thermal energy storage. Asia-Pacific Journal of Chemical Engineering, 2022, 17, .	0.8	3
245	Updates in phase change materials for thermoelectric devices: Status and challenges. Materialia, 2022, 21, 101357.	1.3	9
246	Advanced thermal management system driven by phase change materials for power lithium-ion batteries: A review. Renewable and Sustainable Energy Reviews, 2022, 159, 112207.	8.2	98
247	Transient energy storage in phase change materials, development and simulation of a new TRNSYS component. Journal of Building Engineering, 2022, 50, 104188.	1.6	9
248	Ternary composite phase change materials (PCMs) towards low phase separation and supercooling: eutectic behaviors and application. Energy Reports, 2022, 8, 2646-2655.	2.5	29
249	A Comparative Study on Thermophysical Properties of Functionalized and Non-Functionalized Multi-Walled Carbon Nano Tubes (MWCNTS) Enhanced Salt Hydrate Phase Change Material. SSRN Electronic Journal, 0, , .	0.4	0
250	Study on Heat Storage Performance of a Novel Vertical Shell and Multi-Finned Tube Tank. SSRN Electronic Journal, 0, , .	0.4	0
251	A Summary Review on Experimental Studies for PCM Building Applications: Towards Advanced Modular Prototype. Energies, 2022, 15, 1459.	1.6	7
252	Analysis of Heat Transfer Rate for Different Annulus Shape Properties-Enhanced Beeswax-Based Phase Change Material for Thermal Energy Storage. Mathematical Problems in Engineering, 2022, 2022, 1-21.	0.6	7
253	Preparation and Thermal Performance Analysis of New Composite Phase Change Materials of Sodium Acetate Trihydrate and Different Additives ChemistrySelect, 2022, 7, .	0.7	2

#	Article	IF	CITATIONS
254	Chip-scale solar thermal electrical power generation. Cell Reports Physical Science, 2022, 3, 100789.	2.8	18
255	Preparation of mechanically robust and thermochromic phase change materials for thermal energy storage and temperature indicator. Energy and Buildings, 2022, 261, 111993.	3.1	13
256	The ingenious combination of thermal energy storage and temperature visualization of binary fatty acid eutectic/eucalyptus wood fiber skeleton composites. Solar Energy, 2022, 236, 522-532.	2.9	13
257	Progress of experimental studies on compact integrated solar collector-storage retrofits adopting phase change materials. Solar Energy, 2022, 237, 62-95.	2.9	15
258	Building hollow clay bricks embedding phase change material: Thermal behavior analysis under hot climate. Solar Energy, 2022, 237, 122-134.	2.9	12
259	Exergo-economic analysis for screening of metal hydride pairs for thermochemical energy storage for solar baking system. Thermal Science and Engineering Progress, 2022, 30, 101271.	1.3	0
260	A review on carbon-based phase change materials for thermal energy storage. Journal of Energy Storage, 2022, 50, 104166.	3.9	64
261	A comparative study on thermophysical properties of functionalized and non-functionalized Multi-Walled Carbon Nano Tubes (MWCNTs) enhanced salt hydrate phase change material. Solar Energy Materials and Solar Cells, 2022, 240, 111697.	3.0	19
262	Preparation and properties of lauric acid-octadecanol/expanded graphite shape-stabilized phase change energy storage material. Materials Today Communications, 2022, 31, 103325.	0.9	5
263	Emergence of asymmetric straight and branched fins in horizontally oriented latent heat thermal energy storage units. International Journal of Heat and Mass Transfer, 2022, 189, 122726.	2.5	15
264	Application of multi-scale pore regulation for high thermal conductivity foam reinforcements in energy storage. Composites Part A: Applied Science and Manufacturing, 2022, 157, 106938.	3.8	9
265	Binary composite (TiO2-Gr) based nano-enhanced organic phase change material: Effect on thermophysical properties. Journal of Energy Storage, 2022, 51, 104526.	3.9	15
266	A review on numerical simulation, optimization design and applications of packed-bed latent thermal energy storage system with spherical capsules. Journal of Energy Storage, 2022, 51, 104555.	3.9	40
267	Analysis of cold thermal energy storage using phase change materials in freezers. Journal of Energy Storage, 2022, 51, 104433.	3.9	28
268	Effect of diamond microparticles on the thermal behavior of low melting point metal: An experimental and numerical study. International Journal of Thermal Sciences, 2022, 178, 107613.	2.6	4
269	Investigations of double layer phase change walls with expanded graphite on the temperature and energy consumption. Energy Reports, 2021, 7, 9023-9034.	2.5	5
270	TES Nanoemulsions: A Review of Thermophysical Properties and Their Impact on System Design. Nanomaterials, 2021, 11, 3415.	1.9	6
271	Characterization and Reliability of Caprylic Acid-Stearyl Alcohol Binary Mixture as Phase Change Material for a Cold Energy Storage System. Materials, 2021, 14, 7418.	1.3	12

#	ARTICLE	IF	CITATIONS
272	Improvement of Properties of an Insulated Wall for Refrigerated Trailer-Numerical and Experimental Study. Energies, 2022, 15, 51.	1.6	1
273	Recent advances in phase change materials for thermal energy storage-a review. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, 1.	0.8	15
274	Nanostructured Coatings: Review on Processing Techniques, Corrosion Behaviour and Tribological Performance. Nanomaterials, 2022, 12, 1323.	1.9	24
275	Study on heat storage performance of a novel vertical shell and multi-finned tube tank. Renewable Energy, 2022, 193, 76-88.	4.3	15
276	Asymmetric phenomenon of flow and heat transfer in charging process of thermal energy storage based on an entire domain model. Applied Energy, 2022, 316, 119122.	5.1	5
277	Theoretical prediction and experimental investigation on nanoencapsulated phase change material with improved thermal energy storage performance. Solar Energy Materials and Solar Cells, 2022, 241, 111741.	3.0	5
278	Role of phase change materials in thermal energy storage: Potential, recent progress and technical challenges. Sustainable Energy Technologies and Assessments, 2022, 52, 102234.	1.7	13
279	Phase change materials for thermal energy storage applications in greenhouses: A review. Sustainable Energy Technologies and Assessments, 2022, 52, 102241.	1.7	4
280	Flexible core-sheath thermochromic phase change fibers for temperature management and electrical/solar energy harvesting. Composites Science and Technology, 2022, 226, 109538.	3.8	27
281	Phase behavior of n-octadecane in the form of water dispersion by the optical method. Mendeleev Communications, 2022, 32, 417-418.	0.6	1
282	Thermal Performance of Microencapsulated Phaseâ€Change Slurry in a Circular Tube for Heat Storage. Chemical Engineering and Technology, 0, , .	0.9	0
283	Thermal properties evaluation of paraffin wax enhanced with carbon nanotubes as latent heat thermal energy storage. Journal of Energy Storage, 2022, 52, 105027.	3.9	17
284	Comparative study of simultaneous use of a double or a triple skin facade with phase change materials, green roof, and photovoltaics in residential buildings of Iran. Environmental Progress and Sustainable Energy, 0, , .	1.3	1
285	Performance assessment of a novel integrated concentrator photovoltaic system with encapsulated phase change materials. Energy Conversion and Management, 2022, 266, 115854.	4.4	19
286	Faz Değiştiren Malzemeler: Çeşitleri, Özellikleri ve Binalarda Kullanımları. Kırklareli Üniversitesi Mühendislik Ve Fen Bilimleri Dergisi, 0, , .	0.2	0
287	Parametric Sensitivity Analysis and Performance Evaluation of High-Temperature Macro-Encapsulated Packed-Bed Latent Heat Storage System Operating with Transient Inlet Boundary Conditions. Processes, 2022, 10, 1382.	1.3	0
288	Application of PCM-based Thermal Energy Storage System in Buildings: A State of the Art Review on the Mathematical Modeling Approaches and Experimental Investigations. Journal of Thermal Science, 0, , .	0.9	0
289	Freezing fouling from aqueous solutions of TBAB and TME clathrate hydrates. Chemical Engineering Science, 2022, 263, 117923.	1.9	0

#	Article	IF	CITATIONS
290	Oil-in-Oil emulsions of stearic acid dispersed in silicone oil with enhanced energy storage capability for heat transfer fluids. Solar Energy Materials and Solar Cells, 2022, 245, 111893.	3.0	5
291	Transient heat transfer analysis of serially connected array of phase change material in the thermal battery units with Al2O3 working Nano fluids. Journal of Energy Storage, 2022, 53, 105184.	3.9	3
292	Phase change heat transfer and energy storage in a wavy-tube thermal storage unit filled with a nano-enhanced phase change material and metal foams. Journal of Energy Storage, 2022, 54, 105277.	3.9	20
293	Phase change materials in building integrated space heating and domestic hot water applications: A review. Journal of Energy Storage, 2022, 54, 105227.	3.9	33
294	Life Cycle Assessment of Dispersed Phase Change Material Heat Accumulators for Cooperation with Buildings in the District Heating System. Energies, 2022, 15, 5771.	1.6	5
295	Experimental study on photovoltaic panel integrated with Polyethylene Glycol 1500 phase change material. Journal of Energy Storage, 2022, 55, 105518.	3.9	6
296	Shape-stabilized orange peel/myristic acid phase change materials for efficient thermal energy storage application. Energy Reports, 2022, 8, 9618-9628.	2.5	11
297	Preparation and thermal properties of novel inorganic-organic eutectic composite material with high latent heat and thermal conductivity based on aluminum sulfate salt. Journal of Energy Storage, 2022, 55, 105364.	3.9	6
298	Energetic and economic analyses of integrating enhanced macro-encapsulated PCM's with active underfloor hydronic heating system. Energy Reports, 2022, 8, 848-862.	2.5	10
299	Experimental investigation on high energy-density and power-density hydrated salt-based thermal energy storage. Applied Energy, 2022, 325, 119870.	5.1	6
300	Short recent summary review on evolving phase change material encapsulation techniques for building applications. Energy Reports, 2022, 8, 1245-1260.	2.5	9
301	Performances and control aspects of steam storage systems with PCM: Key learnings from a pilot-scale prototype. Applied Energy, 2022, 325, 119817.	5.1	4
302	Effect of surfactant on functionalized multi-walled carbon nano tubes enhanced salt hydrate phase change material. Journal of Energy Storage, 2022, 55, 105654.	3.9	16
303	Integration of a steam accumulator with a biomass power-generation system for flexible energy storage and discharge: Effect of the initial steam pressure on the steam discharge profile and levelized cost of storage. Journal of Energy Storage, 2022, 55, 105586.	3.9	2
304	Study and Assessment of Solar Drying Configurations with Storage Incorporation. Springer Proceedings in Materials, 2022, , 339-353.	0.1	0
305	ENERGY MANAGEMENT IN BUILDINGS USING BIO PHASE CHANGE MATERIAL. International Journal of Energy for A Clean Environment, 2023, 24, 83-95.	0.6	3
306	Laboratory Configurations for PCM-TES Materials: A Review. Journal of Advanced Thermal Science Research, 0, 9, 50-68.	0.4	0
307	Thermal performance analysis and multi-objective optimization of thermal energy storage unit with cascaded packed bed in a solar heating system. Applied Thermal Engineering, 2023, 219, 119416.	3.0	3

#	Article	IF	CITATIONS
308	A hierarchically encapsulated phase-change film with multi-stage heat management properties and conformable self-interfacing contacts for enhanced interface heat dissipation. Journal of Materials Chemistry A, 2022, 10, 23617-23629.	5.2	5
309	Experimental study of the preparation and modification of Ba(OH)2Â-8H2O high-performance composite phase change materials. Journal of Thermal Analysis and Calorimetry, 2022, 147, 13239-13252.	2.0	4
310	Shape-Stabilized Phase Change Materials of Stearic Acid Confined in Fumed Silica. Energy & En	2.5	4
311	Low temperature energy storage by bio-originated calcium alginate-octyl laurate microcapsules. Journal of Thermal Analysis and Calorimetry, 2022, 147, 13151-13160.	2.0	2
312	Phase change material applied in solar heating for buildings: A review. Journal of Energy Storage, 2022, 55, 105826.	3.9	19
313	Comprehensive review on cascaded latent heat storage technology: Recent advances and challenges. Journal of Energy Storage, 2022, 55, 105713.	3.9	15
314	Architected lattices embedded with phase change materials for thermal management of high-power electronics: A numerical study. Applied Thermal Engineering, 2023, 219, 119420.	3.0	14
315	Research Progress of Self-Healing Solid-Solid Phase Change Materials. Hans Journal of Nanotechnology, 2022, 12, 311-329.	0.1	0
316	Application of an improved latent heat storage system in the food packaging. Journal of Food Engineering, 2023, 341, 111351.	2.7	4
317	Bismuth-mesoporous silica-based phase change materials for thermal energy storage. Applied Materials Today, 2022, 29, 101663.	2.3	1
318	Effects of porous silicon carbide supports prepared from pyrolyzed precursors on the thermal conductivity and energy storage properties of paraffin-based composite phase change materials. Journal of Energy Storage, 2022, 56, 106046.	3.9	14
319	Heat storage and release performance experiment of externally hung phase change solar greenhouse in severe cold regions of Northeast China - Taking Fuxin City as an example. Journal of Energy Storage, 2023, 58, 106411.	3.9	4
320	Influence of physical characteristics of graphene/Al2O3 composites employing nano particles based organic phase changing materials. Materials Today: Proceedings, 2023, 77, 448-454.	0.9	1
321	Impact of Phase Change Materials on Cooling Demand of an Educational Facility in Cairo, Egypt. Sustainability, 2022, 14, 15956.	1.6	2
322	A cross-scale †material-component-system†framework for transition towards zero-carbon buildings and districts with low, medium and high-temperature phase change materials. Sustainable Cities and Society, 2023, 89, 104378.	5.1	24
323	Methylated Mesoporous Silica Loaded with 1-Octadecanol as a New Shape-Stabilized Phase Change Material for Enhanced Thermal Energy Storage Efficiency. Canadian Journal of Chemistry, 0, , .	0.6	0
324	A review of phase change materials and heat enhancement methodologies. Wiley Interdisciplinary Reviews: Energy and Environment, 2023, 12, .	1.9	4
325	A timeline of the phase-change problem for latent thermal energy storage systems: A review of theoretical approaches from the 1970′s to 2022. Solar Energy, 2023, 250, 248-284.	2.9	7

#	Article	IF	CITATIONS
326	Insights into the Multiscale Lubrication Mechanism of Edible Phase Change Materials. ACS Applied Materials & Samp; Interfaces, 2023, 15, 3699-3712.	4.0	10
327	Performance management of EV battery coupled with latent heat jacket at cell level. Journal of Power Sources, 2023, 558, 232618.	4.0	8
328	Three-dimensional continuous network graphite nanosheets-based carbon foam supported stearic acid as effective shape-stabilized phase change material. Journal of Energy Storage, 2023, 59, 106575.	3.9	4
329	High energy-density and power-density cold storage enabled by sorption thermal battery based on liquid-gas phase change process. Applied Energy, 2023, 334, 120656.	5.1	5
330	Synthesis of shape stabilized phase change material with high thermal conductivity via in situ N-doped carbon derived from chitin. Journal of Energy Storage, 2023, 60, 106634.	3.9	2
331	Construction of a model for an enclosing structure with a heat-accumulating material with phase transition taking into account the process of solar energy accumulation. Eastern-European Journal of Enterprise Technologies, 2022, 6, 26-37.	0.3	2
332	Solidification time and solid fraction of vertical concentric shell and tube latent heat storage device : A dimensionless parametric study and correlations development. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2023, 45, 331-355.	1.2	1
333	Effect of carbon nanotube and microencapsulated phase change material utilization on the thermal energy storage performance in UV cured (photoinitiated) unsaturated polyester composites. Journal of Energy Storage, 2023, 61, 106780.	3.9	10
334	Design and performance analysis of solar air heater with phase change materials. Journal of Energy Storage, 2023, 61, 106809.	3.9	11
335	A novel hydrated salt-based phase change material for medium- and low-thermal energy storage. Energy, 2023, 274, 127251.	4.5	5
336	Experimental investigation of the effects of inclination, fin height, and perforation on the thermal performance of a longitudinal finned latent heat thermal energy storage. Energy, 2023, 274, 127327.	4.5	15
337	Diacid esters of 1-dodecanol as new alternatives to solid-liquid phase change materials for solar heat storage systems. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2023, 45, 608-622.	1.2	1
338	Solar Hot Water Systems Using Latent Heat Thermal Energy Storage: Perspectives and Challenges. Energies, 2023, 16, 1969.	1.6	3
339	Application of phase change materials in improving the performance of refrigeration systems. Sustainable Energy Technologies and Assessments, 2023, 56, 103097.	1.7	2
340	Influence of Angular Orientation of Fins on Thermal Charging and Discharging Performance of Latent Heat Storage Unit. High Temperature, 2022, 60, 238-251.	0.1	1
341	Improvement of thermomechanical properties of porous plaster reinforced with a network of Morocco sheep wool skeletons for Energy efficiency. Building and Environment, 2023, 234, 110171.	3.0	4
342	Enhancement effect of T-shaped fins on phase change material melting in a horizontal shell-and-tube storage unit. International Journal of Heat and Mass Transfer, 2023, 208, 124044.	2.5	5
343	Phase change n-Octadecane microencapsulated in titanium dioxide nanoparticle-doped polymer for photothermal conversion and photocatalysis. Solar Energy, 2023, 254, 73-87.	2.9	12

#	Article	IF	CITATIONS
344	A review of imidazolium ionic liquid-based phase change materials for low and medium temperatures thermal energy storage and their applications. , 2023 , 1 , 100010 .		4
371	Thermal energy storage with extended surfaces and phase change materials: A CFD analysis. AIP Conference Proceedings, 2023, , .	0.3	0
375	Numerical prediction of melting phenomena of phase change material in the annulus of two concentric pipes: Performance and behavior. AIP Conference Proceedings, 2023, , .	0.3	0
379	Applications of Nano-enhanced Phase Change Materials in Textiles. Materials Horizons, 2023, , 201-222.	0.3	O
385	Performance of Paraffin In A Hexagonal Finned Back Sheet As A Passive Cooling System For Solar Panels: A Case Study In The Tropics. , 2023, , .		0
386	Investigation of Optimum Phase Change Material for PV Panels in Malaysian Climatic Conditions. , 2023, , .		O
390	Investigating Energy-Saving Strategies: A Numerical Study of Translucent Insulation and Phase Change Materials in Windows. , 0, , .		0
397	Introduction to Nano-enhanced Phase Change Materials. Materials Horizons, 2023, , 1-10.	0.3	0
408	Layered nanomaterials for renewable energy generation and storage. Materials Advances, 0, , .	2.6	0
423	Enhancing Building Envelopes by Looking into the Energy-Saving Methods: A Computational Analysis of Windows' Phase Change Materials and Translucent Insulation. , 2023, , .		O