

Preparation, characterization and thermal properties of
form-stable composite phase change material for therm

Applied Thermal Engineering

59, 336-347

DOI: [10.1016/j.applthermaleng.2013.05.015](https://doi.org/10.1016/j.applthermaleng.2013.05.015)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Utilization of waste glass powder for latent heat storage application in buildings. <i>Energy and Buildings</i> , 2013, 66, 405-414.	3.1	30
2	Latent heat energy storage characteristics of building composites of bentonite clay and pumice sand with different organic PCMs. <i>International Journal of Energy Research</i> , 2014, 38, 1478-1491.	2.2	58
3	Phase change materials integrated in building walls: A state of the art review. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 31, 870-906.	8.2	525
4	Development of thermal energy storage composites and prevention of PCM leakage. <i>Applied Energy</i> , 2014, 135, 225-233.	5.1	80
5	Lauric acid/intercalated kaolinite as form-stable phase change material for thermal energy storage. <i>Energy</i> , 2014, 76, 385-389.	4.5	111
6	Experimental and theoretical analysis of a cement mortar containing microencapsulated PCM. <i>Applied Thermal Engineering</i> , 2014, 73, 32-40.	3.0	64
7	Stearic acid hybridizing coalâ€series kaolin composite phase change material for thermal energy storage. <i>Applied Clay Science</i> , 2014, 101, 277-281.	2.6	71
8	Diatomite/Palm Wax Composite as a Phase Change Material for Latent Heat Storage. <i>Advanced Materials Research</i> , 2015, 1126, 33-38.	0.3	1
9	Effect of Fabrication Methodology on Morphology, Conductivity, and Thermalâ€Energy Storage of a Stearic Acid/Dopedâ€Polyaniline Phaseâ€Change Material. <i>Energy Technology</i> , 2015, 3, 734-742.	1.8	8
10	Experimental investigation and performance analysis of a fin tube phase change cold storage unit for high temperature cooling application. <i>Energy and Buildings</i> , 2015, 89, 9-17.	3.1	46
11	Preparation and properties of shape-stabilized phase change materials based on fatty acid eutectics and cellulose composites for thermal energy storage. <i>Energy</i> , 2015, 80, 98-103.	4.5	79
12	Developments in organic solidâ€liquid phase change materials and their applications in thermal energy storage. <i>Energy Conversion and Management</i> , 2015, 95, 193-228.	4.4	597
13	Enhanced thermal conductivity of PEG/diatomite shape-stabilized phase change materials with Ag nanoparticles for thermal energy storage. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8526-8536.	5.2	300
14	The preparation of the hydrotalcite-based composite phase change material. <i>Applied Energy</i> , 2015, 156, 207-212.	5.1	14
15	Properties evaluation and applications of thermal energystorage materials in buildings. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 48, 500-522.	8.2	50
16	Fabrication and thermal characterization of kaolin-based composite phase change materials for latent heat storage in buildings. <i>Energy and Buildings</i> , 2015, 96, 193-200.	3.1	102
17	Investigation on the thermal degradation and kinetic parameters of innovative insulation materials using TGA-MS. <i>Applied Thermal Engineering</i> , 2015, 81, 177-184.	3.0	37
18	Composite of Coalâ€Series Kaolinite and Capricâ€Lauric Acid as Formâ€Stable Phaseâ€Change Material. <i>Energy Technology</i> , 2015, 3, 77-83.	1.8	55

#	ARTICLE	IF	CITATIONS
19	Utilization of macro encapsulated phase change materials for the development of thermal energy storage and structural lightweight aggregate concrete. <i>Applied Energy</i> , 2015, 139, 43-55.	5.1	150
20	Sepiolite supported stearic acid composites for thermal energy storage. <i>RSC Advances</i> , 2016, 6, 112493-112501.	1.7	27
21	Experiment study on the thermal properties of paraffin/kaolin thermal energy storage form-stable phase change materials. <i>Applied Energy</i> , 2016, 182, 475-487.	5.1	162
22	Thermal regulating performance of gypsum/(C18â€“C24) composite phase change material (CPCM) for building energy storage applications. <i>Applied Thermal Engineering</i> , 2016, 107, 55-62.	3.0	62
23	Development and thermal performance of pumice/organic PCM/gypsum composite plasters for thermal energy storage in buildings. <i>Solar Energy Materials and Solar Cells</i> , 2016, 149, 19-28.	3.0	154
24	Thermal energy storage characteristics of bentonite-based composite PCMs with enhanced thermal conductivity as novel thermal storage building materials. <i>Energy Conversion and Management</i> , 2016, 117, 132-141.	4.4	156
25	Preparation and thermal characteristics of eutectic fatty acids/ <i>Shorea javanica</i> composite for thermal energy storage. <i>Applied Thermal Engineering</i> , 2016, 100, 62-67.	3.0	25
26	Energyâ€“efficient Heat Storage using Gypsum Board with Fatty Acid Ester as Layered Phase Change Material. <i>Energy Technology</i> , 2017, 5, 1392-1398.	1.8	8
27	Shape-stabilized composite phase change materials with high thermal conductivity based on stearic acid and modified expanded vermiculite. <i>Renewable Energy</i> , 2017, 112, 113-123.	4.3	104
28	Characterization of paraffin/ultrasonic-treated diatomite for use as phase change material in thermal energy storage of buildings. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 128, 1293-1303.	2.0	21
29	Lauric acid/modified sepiolite composite as a form-stable phase change material for thermal energy storage. <i>Applied Clay Science</i> , 2017, 146, 14-22.	2.6	94
30	Preparation and thermal performance of polyurethane/PEG as novel form-stable phase change materials for thermal energy storage. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 130, 1011-1019.	2.0	28
31	Form stable composite phase change materials from palmitic-lauric acid eutectic mixture and carbonized abandoned rice: Preparation, characterization, and thermal conductivity enhancement. <i>Energy and Buildings</i> , 2017, 154, 46-54.	3.1	75
32	Evaluation of energy efficient hybrid hollow plaster panel using phase change material/xGnP composites. <i>Applied Energy</i> , 2017, 205, 1548-1559.	5.1	30
33	Morphology and thermal performance of quaternary fatty acid eutectics/polyurethane/Ag form-stable phase change composite fibrous membranes. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 129, 1533-1545.	2.0	21
34	Development of heat storage gypsum board with paraffin-based mixed SSPCM for application to buildings. <i>Journal of Adhesion Science and Technology</i> , 2017, 31, 297-309.	1.4	20
35	A facile synthesis of solid-solid phase change material for thermal energy storage. <i>Applied Thermal Engineering</i> , 2017, 117, 622-628.	3.0	61
36	Thermal Properties of Cement-Based Composites for Geothermal Energy Applications. <i>Materials</i> , 2017, 10, 462.	1.3	27

#	ARTICLE	IF	CITATIONS
37	Diatomite/CNTs/PEG composite PCMs with shape-stabilized and improved thermal conductivity: Preparation and thermal energy storage properties. <i>Energy and Buildings</i> , 2018, 164, 166-175.	3.1	173
38	Silica fume/capric acid-palmitic acid composite phase change material doped with CNTs for thermal energy storage. <i>Solar Energy Materials and Solar Cells</i> , 2018, 179, 353-361.	3.0	113
39	Preparation and properties of fatty acids based thermal energy storage aggregate concrete. <i>Construction and Building Materials</i> , 2018, 165, 1-10.	3.2	68
40	Preparation, characterization and thermal regulation performance of cement based-composite phase change material. <i>Solar Energy Materials and Solar Cells</i> , 2018, 174, 523-529.	3.0	94
41	Thermal and Mechanical Properties of Expanded Graphite/Paraffin Gypsum-Based Composite Material Reinforced by Carbon Fiber. <i>Materials</i> , 2018, 11, 2205.	1.3	49
42	Mullite Stabilized Palmitic Acid as Phase Change Materials for Thermal Energy Storage. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 440.	0.8	16
43	Structure and thermal properties of stearic acid/silica composites as form-stable phase change materials. <i>Journal of Sol-Gel Science and Technology</i> , 2018, 87, 419-426.	1.1	20
44	Optically-regulated thermal energy storage in diverse organic phase-change materials. <i>Chemical Communications</i> , 2018, 54, 10722-10725.	2.2	55
45	Thermal behavior of composite phase change materials based on polyethylene glycol and expanded vermiculite with modified porous carbon layer. <i>Journal of Materials Science</i> , 2018, 53, 13067-13080.	1.7	37
46	Utilizing blast furnace slags (BFS) to prepare high-temperature composite phase change materials (C-PCMs). <i>Construction and Building Materials</i> , 2018, 177, 184-191.	3.2	29
47	Development of structural thermal energy storage concrete using paraffin intruded lightweight aggregate with nano-refined modified encapsulation paste layer. <i>Construction and Building Materials</i> , 2019, 228, 116768.	3.2	21
48	Thermal and mechanical properties of mortar incorporated with paraffin/palm oil fuel ash composite. <i>Journal of Building Engineering</i> , 2019, 26, 100923.	1.6	5
49	Preparation and properties of porous diatomite-supported multi-walled carbon nanotubes with Na ₂ SO ₄ ·10H ₂ O-based phase change energy storage composites. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	2
50	Investigation of thermal properties and enhanced energy storage/release performance of silica fume/myristic acid composite doped with carbon nanotubes. <i>Renewable Energy</i> , 2019, 140, 779-788.	4.3	37
51	A real-time experimental investigation of building integrated thermal energy storage with air-conditioning system for indoor temperature regulation. <i>Energy Storage</i> , 2019, 1, e43.	2.3	10
52	Insight into the effect of crystallographic structure on thermal conductivity of kaolinite nanoclay. <i>Applied Clay Science</i> , 2019, 173, 12-18.	2.6	29
53	Fabrication and characterization of capric acid/reduced graphene oxide decorated diatomite composite phase change materials for solar energy storage. <i>Royal Society Open Science</i> , 2019, 6, 181664.	1.1	9
54	Direct impregnation and characterization of Colemanite/Ulexite-Mg(OH) ₂ paraffin based form-stable phase change composites. <i>Solar Energy Materials and Solar Cells</i> , 2019, 195, 346-352.	3.0	10

#	ARTICLE	IF	CITATIONS
55	Preparation, characterization, thermal energy storage properties and temperature control performance of form-stabilized sepiolite based composite phase change materials. <i>Energy and Buildings</i> , 2019, 188-189, 111-119.	3.1	78
56	Enhanced thermal conductivity of palmitic acid/mullite phase change composite with graphite powder for thermal energy storage. <i>Renewable Energy</i> , 2019, 138, 833-841.	4.3	63
57	Stearic acid hybridizing kaolinite as shape-stabilized phase change material for thermal energy storage. <i>Applied Clay Science</i> , 2019, 183, 105358.	2.6	21
58	A Taguchi approach for optimizing the mixture design of cold-bonded PCM aggregates. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019, , 1-21.	1.2	1
59	Synthesis of novel form-stable composite phase change materials with modified graphene aerogel for solar energy conversion and storage. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 466-475.	3.0	79
60	Novel strategies and supporting materials applied to shape-stabilize organic phase change materials for thermal energy storage—A review. <i>Applied Energy</i> , 2019, 235, 846-873.	5.1	575
61	Effects of carbon nanotubes additive on thermal conductivity and thermal energy storage properties of a novel composite phase change material. <i>Journal of Composite Materials</i> , 2019, 53, 2967-2980.	1.2	35
62	vegetable fat: A low-cost bio-based phase change material for thermal energy storage in buildings. <i>Journal of Building Engineering</i> , 2019, 21, 222-229.	1.6	45
63	Investigation on interfacial interaction and thermal properties of flame retarded wood-plastic form-stable phase change material. <i>Composite Interfaces</i> , 2019, 26, 597-610.	1.3	11
64	Thermo-physical investigation and experimental discharge characteristics of lauryl alcohol as a potential phase change material for thermal management in buildings. <i>Renewable Energy</i> , 2020, 148, 492-503.	4.3	42
65	Preparation of low-temperature composite phase change materials (C-PCMs) from modified blast furnace slag (MBFS). <i>Construction and Building Materials</i> , 2020, 238, 117717.	3.2	21
66	Effect of pre-treatment methods on natural raw materials-based phase change material composites for building applications. <i>Construction and Building Materials</i> , 2020, 263, 120114.	3.2	12
67	Thermal energy storage properties and lab-scale thermal performance in cementitious plaster of composite phase change material for energy efficiency of buildings. <i>Environmental Progress and Sustainable Energy</i> , 2020, 39, e13455.	1.3	4
68	Enhanced light-thermal conversion efficiency of mixed clay base phase change composites for thermal energy storage. <i>Applied Clay Science</i> , 2020, 189, 105535.	2.6	28
69	Effects of Thermal Cycling Operation on Solar Thermal Energy Storage, Morphology, Chemical/Crystalline Structure, and Thermal Degradation Properties of Some Fatty Alcohols as Organic PCMs. <i>Energy & Fuels</i> , 2020, 34, 9011-9019.	2.5	21
70	Experimental investigation on thermophysical properties of coconut oil and lauryl alcohol for energy recovery from cold condensate. <i>Journal of Energy Storage</i> , 2020, 31, 101639.	3.9	14
71	Low cost and eco-friendly wood fiber-based composite phase change material: Development, characterization and lab-scale thermoregulation performance for thermal energy storage. <i>Energy</i> , 2020, 195, 116983.	4.5	46
72	Emerging paraffin/carbon-coated nanoscroll composite phase change material for thermal energy storage. <i>Renewable Energy</i> , 2020, 152, 579-589.	4.3	36

#	ARTICLE	IF	CITATIONS
73	Form-stabilized Polyethylene Glycol/Palygorskite Composite Phase Change Material: Thermal Energy Storage Properties, Cycling Stability, and Thermal Durability. <i>Polymer Engineering and Science</i> , 2020, 60, 909-916.	1.5	32
74	Clay Composites for Thermal Energy Storage: A Review. <i>Molecules</i> , 2020, 25, 1504.	1.7	23
75	Preparation and characterization of composite phase change materials based on paraffin and carbon foams derived from starch. <i>Polymer</i> , 2021, 212, 123143.	1.8	31
76	Kaolinite nanotube-stearic acid composite as a form-stable phase change material for thermal energy storage. <i>Applied Clay Science</i> , 2021, 201, 105930.	2.6	24
77	Silica fume/capric acid-stearic acid PCM included-cementitious composite for thermal controlling of buildings: Thermal energy storage and mechanical properties. <i>Energy</i> , 2021, 219, 119588.	4.5	82
78	Fabrication and optimization of kaolin/stearic acid composite as a form-stable phase change material for application in the thermal energy storage systems. <i>Journal of Energy Storage</i> , 2021, 33, 102155.	3.9	34
79	A REVIEW ON ORGANIC PHASE CHANGE MATERIALS AND THEIR APPLICATIONS. , 2021, 5, .		5
80	Mechanical and Thermo-Physical Performances of Gypsum-Based PCM Composite Materials Reinforced with Carbon Fiber. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 468.	1.3	12
81	Experimental investigation for the development of superior structural integrated thermocrete via incorporation of novel non-encapsulated paraffin aggregate. <i>Construction and Building Materials</i> , 2021, 271, 121883.	3.2	11
82	Thermal management performance and mechanical properties of a novel cementitious composite containing fly ash/lauric acid-myristic acid as form-stable phase change material. <i>Construction and Building Materials</i> , 2021, 274, 122105.	3.2	73
83	Scientometric review of international research trends on thermal energy storage cement based composites via integration of phase change materials from 1993 to 2020. <i>Construction and Building Materials</i> , 2021, 278, 122344.	3.2	41
84	A novel composite for thermal energy storage from alumina hollow sphere/paraffin and alkali-activated slag. <i>Ceramics International</i> , 2021, 47, 15947-15957.	2.3	19
85	Preparation and thermal properties of low-temperature composite phase-change materials based on a binary eutectic mixture with expanded graphite: Effect of particle size and mass fraction. <i>Journal of Energy Storage</i> , 2021, 40, 102778.	3.9	21
86	Development of novel form-stable phase change material (PCM) composite using recycled expanded glass for thermal energy storage in cementitious composite. <i>Renewable Energy</i> , 2021, 175, 14-28.	4.3	55
87	Study of Capric-Palmitic Acid/Clay Minerals as Form-Stable Composite Phase-Change Materials for Thermal Energy Storage. <i>ACS Omega</i> , 2021, 6, 24650-24662.	1.6	7
88	Form-Stable Phase Change Materials with Enhanced Thermal Conductivity Based on Binary Capric-Palmitic Acid and Graphite Carbon In Situ Modified Expanded Perlite. <i>ACS Applied Energy Materials</i> , 2021, 4, 9124-9132.	2.5	14
89	Assessment of impregnating phase change materials into lightweight aggregates for development of thermal energy storage aggregate composites. <i>Construction and Building Materials</i> , 2021, 305, 124683.	3.2	11
90	Preparation, characterization and performance of paraffin/sepiolite composites as novel shape-stabilized phase change materials for thermal energy storage. <i>Solar Energy Materials and Solar Cells</i> , 2021, 231, 111300.	3.0	68

#	ARTICLE	IF	CITATIONS
91	Development and characterization of NaCl-KCl/Kaolin composites for thermal energy storage. Solar Energy, 2021, 227, 468-476.	2.9	23
92	Performance of energy storage system containing cement mortar and PCM/epoxy/SiC composite fine aggregate. Applied Thermal Engineering, 2021, 198, 117445.	3.0	18
93	Mechanical properties and water absorption of steam-cured mortar containing phase change composites. Construction and Building Materials, 2020, 248, 118707.	3.2	17
94	PREPARATION OF PUZZOLANA ACTIVE TWO COMPONENT COMPOSITE FOR LATENT HEAT STORAGE. Ceramics - Silikaty, 2016, , 291-298.	0.2	5
95	Design of composite materials/devices for thermal storage â€“ A critical review. Veruscript Functional Nanomaterials, 2018, 2, 1-28.	0.2	7
96	Review on the Integration of Phase Change Materials in Building Envelopes for Passive Latent Heat Storage. Applied Sciences (Switzerland), 2021, 11, 9305.	1.3	20
97	A novel energy-effective and carbon-emission reducing mortars with bottom ash and phase change material: Physico-mechanical and thermal energy storage characteristics. Journal of Energy Storage, 2021, 44, 103325.	3.9	28
98	Experimental investigation for the thermal management of a coaxial electrical cable system using a form-stable low temperature phase change material. Journal of Energy Storage, 2021, 44, 103450.	3.9	7
99	A novel form-stable phase change material based on halloysite nanotube for thermal energy storage. Journal of Energy Storage, 2022, 45, 103703.	3.9	16
100	Thermal conductivity enhancement of silica fume based composite thermal energy storage material using different carbon nanomaterials. Energy and Buildings, 2022, 257, 111789.	3.1	15
101	Incorporation technology of bio-based phase change materials for building envelope: A review. Energy and Buildings, 2022, 260, 111920.	3.1	25
102	Thermal energy storage characteristics of polyacrylic acid/dodecanol/carbon nanofiber composites as thermal conductive <sc>shapeâ€stabilized</sc> composite phase change materials. International Journal of Energy Research, 2022, 46, 20873-20885.	2.2	3
103	A novel dodecanol/tepexil PCM composite for thermal energy storage in buildings. Materials Chemistry and Physics, 2022, 284, 126067.	2.0	6
104	Characterization and thermal properties of Lauryl alcohol â€“ Capric acid with CuO and TiO2 nanoparticles as phase change material for cold storage system. Materials Letters, 2022, 316, 132052.	1.3	13
105	Experimental study on lauryl alcohol/expanded graphite composite phase change materials for thermal regulation in building. Construction and Building Materials, 2022, 335, 127400.	3.2	9
106	Investigation of a novel bio-based phase change material hemp concrete for passive energy storage in buildings. Applied Thermal Engineering, 2022, 212, 118620.	3.0	19
107	Preparation of n-nonadecane based shape-stabilized composite phase change materials containing modified kaolinite clay-doped and determination of their properties. Journal of the Faculty of Engineering and Architecture of Gazi University, 0, , .	0.3	0
108	Heat Control Effect of Phase Change Microcapsules upon Cement Slurry Applied to Hydrate-Bearing Sediment. Energies, 2022, 15, 4197.	1.6	4

#	ARTICLE	IF	CITATIONS
109	A Novel Layered Double Hydroxide and Dodecyl Alcohol Assisted PCM Composite with High Latent Heat Storage Capacity and Thermal Conductivity. <i>Journal of Thermal Science</i> , 2024, 33, 537-547.	0.9	1
110	Preparation and characterization of form-stable phase-change materials with enhanced thermal conductivity based on nano-Al ₂ O ₃ modified binary fatty acids and expanded perlite. <i>Energy and Buildings</i> , 2022, 271, 112330.	3.1	13
111	Effect of halloysite nanotubes on the conformation and thermal properties of shape-stable phase change materials: A molecular dynamics study. <i>Materials Today Communications</i> , 2022, 33, 104180.	0.9	0
112	Fabrication and comprehensive analysis of expanded perlite impregnated with myristic acid-based phase change materials as composite materials for building thermal management. <i>Journal of Energy Storage</i> , 2022, 55, 105710.	3.9	17
113	Development of carbon-coated aluminosilicate nanolayers composite shape-stabilized phase change materials with enhanced photo-thermal conversion and thermal storage. <i>Applied Clay Science</i> , 2022, 229, 106678.	2.6	9
114	Lightweight aggregates as carriers for phase change materials. <i>Construction and Building Materials</i> , 2022, 360, 129390.	3.2	9
115	Experimental evaluation of composite concrete incorporated with thermal energy storage material for improved thermal behavior of buildings. <i>Energy</i> , 2023, 263, 125701.	4.5	24
116	Cementitious composites integrated phase change materials for passive buildings: An overview. <i>Construction and Building Materials</i> , 2022, 361, 129635.	3.2	12
117	Thermal properties optimization of lauric acid as phase change material with modified boron nitride nanosheets-sodium sulfate for thermal energy storage. <i>Journal of Energy Storage</i> , 2023, 61, 106781.	3.9	7
118	Flexible phase change organogel with visualization function for human heat harvesting. <i>Composites Part A: Applied Science and Manufacturing</i> , 2023, 169, 107540.	3.8	0
119	Expanded waste glass/methyl palmitate/carbon nanofibers as effective shape stabilized and thermal enhanced composite phase change material for thermal energy storage. <i>Journal of Energy Storage</i> , 2023, 64, 107205.	3.9	7
120	Thermal energy management in buildings and constructions with phase change material-epoxy composites: a review. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2023, 45, 727-761.	1.2	5