

Guiyin Fang

List of Publications by Year in descending order

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papers

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34105
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#	ARTICLE	IF	CITATIONS
1	An overview of thermal energy storage systems. <i>Energy</i> , 2018, 144, 341-378.	8.8	785
2	Thermal energy storage materials and systems for solar energy applications. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 68, 693-706.	16.4	673
3	Review on thermal conductivity enhancement, thermal properties and applications of phase change materials in thermal energy storage. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 82, 2730-2742.	16.4	568
4	Review on thermal performances and applications of thermal energy storage systems with inorganic phase change materials. <i>Energy</i> , 2018, 165, 685-708.	8.8	319
5	Thermal conductivity enhancement of phase change materials for thermal energy storage: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 62, 305-317.	16.4	300
6	Preparation and characterization of nano-encapsulated n-tetradecane as phase change material for thermal energy storage. <i>Chemical Engineering Journal</i> , 2009, 153, 217-221.	12.7	294
7	Thermal properties and applications of microencapsulated PCM for thermal energy storage: A review. <i>Applied Thermal Engineering</i> , 2019, 147, 841-855.	6.0	263
8	Synthesis, characterization and applications of microencapsulated phase change materials in thermal energy storage: A review. <i>Energy and Buildings</i> , 2017, 144, 276-294.	6.7	261
9	Synthesis and properties of microencapsulated paraffin composites with SiO ₂ shell as thermal energy storage materials. <i>Chemical Engineering Journal</i> , 2010, 163, 154-159.	12.7	260
10	Morphological characterization and applications of phase change materials in thermal energy storage: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 72, 128-145.	16.4	216
11	Development and applications of photovoltaic-thermal systems: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 102, 249-265.	16.4	207
12	Thermal properties and thermal conductivity enhancement of composite phase change materials using myristyl alcohol/metal foam for solar thermal storage. <i>Solar Energy Materials and Solar Cells</i> , 2017, 170, 68-76.	6.2	171
13	Preparation and characterization of stearic acid/expanded graphite composites as thermal energy storage materials. <i>Energy</i> , 2010, 35, 4622-4626.	8.8	168
14	Preparation and characteristics of microencapsulated palmitic acid with TiO ₂ shell as shape-stabilized thermal energy storage materials. <i>Solar Energy Materials and Solar Cells</i> , 2014, 123, 183-188.	6.2	158
15	Synthesis and thermal properties of shape-stabilized lauric acid/activated carbon composites as phase change materials for thermal energy storage. <i>Solar Energy Materials and Solar Cells</i> , 2012, 102, 131-136.	6.2	143
16	Synthesis and thermal properties of fatty acid eutectics and diatomite composites as shape-stabilized phase change materials with enhanced thermal conductivity. <i>Solar Energy Materials and Solar Cells</i> , 2015, 141, 218-224.	6.2	138
17	Comparative analyses on dynamic performances of photovoltaic-thermal solar collectors integrated with phase change materials. <i>Energy Conversion and Management</i> , 2017, 131, 79-89.	9.2	137
18	Palmitic acid/polyvinyl butyral/expanded graphite composites as form-stable phase change materials for solar thermal energy storage. <i>Applied Energy</i> , 2018, 228, 1801-1809.	10.1	126

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19	Synthesis and characterization of microencapsulated paraffin with titanium dioxide shell as shape-stabilized thermal energy storage materials in buildings. <i>Energy and Buildings</i> , 2014, 72, 31-37.	6.7	121
20	Preparation and properties of palmitic acid/SiO ₂ composites with flame retardant as thermal energy storage materials. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 1875-1881.	6.2	120
21	Synthesis and thermal properties of the MA/HDPE composites with nano-additives as form-stable PCM with improved thermal conductivity. <i>Applied Energy</i> , 2016, 180, 116-129.	10.1	120
22	Preparation, thermal properties and applications of shape-stabilized thermal energy storage materials. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 40, 237-259.	16.4	114
23	Microstructure and thermal properties of cetyl alcohol/high density polyethylene composite phase change materials with carbon fiber as shape-stabilized thermal storage materials. <i>Applied Energy</i> , 2017, 200, 19-27.	10.1	112
24	Preparation and properties of lauric acid/silicon dioxide composites as form-stable phase change materials for thermal energy storage. <i>Materials Chemistry and Physics</i> , 2010, 122, 533-536.	4.0	105
25	Preparation and characteristics of microencapsulated stearic acid as composite thermal energy storage material in buildings. <i>Energy and Buildings</i> , 2013, 62, 469-474.	6.7	99
26	Dynamic performances of solar heat storage system with packed bed using myristic acid as phase change material. <i>Energy and Buildings</i> , 2011, 43, 1091-1096.	6.7	98
27	Synthesis and characterization of microencapsulated myristic acid/palmitic acid eutectic mixture as phase change material for thermal energy storage. <i>Applied Energy</i> , 2017, 203, 677-685.	10.1	98
28	Dynamic performance analysis of photovoltaic-thermal solar collector with dual channels for different fluids. <i>Energy Conversion and Management</i> , 2016, 120, 13-24.	9.2	96
29	Maximizing the energy output of a photovoltaic-thermal solar collector incorporating phase change materials. <i>Energy and Buildings</i> , 2017, 153, 382-391.	6.7	96
30	Synthesis and properties of microencapsulated octadecane with silica shell as shape-stabilized thermal energy storage materials. <i>Solar Energy Materials and Solar Cells</i> , 2017, 160, 1-6.	6.2	91
31	Preparation, heat transfer and flow properties of microencapsulated phase change materials for thermal energy storage. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 66, 399-414.	16.4	87
32	Preparation and heat transfer characteristics of microencapsulated phase change material slurry: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 4624-4632.	16.4	83
33	Improved thermal properties of stearyl alcohol/high density polyethylene/expanded graphite composite phase change materials for building thermal energy storage. <i>Energy and Buildings</i> , 2017, 153, 41-49.	6.7	81
34	Comparative simulation analyses on dynamic performances of photovoltaic-thermal solar collectors with different configurations. <i>Energy Conversion and Management</i> , 2014, 87, 778-786.	9.2	80
35	Preparation and characterization of flame retardant n-hexadecane/silicon dioxide composites as thermal energy storage materials. <i>Journal of Hazardous Materials</i> , 2010, 181, 1004-1009.	12.4	79
36	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.	8.8	79

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37	Preparation, characterization and thermal properties of fatty acid eutectics/bentonite/expanded graphite composites as novel form-stable thermal energy storage materials. <i>Solar Energy Materials and Solar Cells</i> , 2017, 166, 157-166.	6.2	79
38	Synthesis, characterization and properties of palmitic acid/high density polyethylene/graphene nanoplatelets composites as form-stable phase change materials. <i>Solar Energy Materials and Solar Cells</i> , 2016, 155, 421-429.	6.2	78
39	Preparation and thermal properties of n-octadecane/stearic acid eutectic mixtures with hexagonal boron nitride as phase change materials for thermal energy storage. <i>Energy and Buildings</i> , 2016, 131, 35-41.	6.7	78
40	Numerical analysis of photovoltaic-thermal collector using nanofluid as a coolant. <i>Solar Energy</i> , 2020, 196, 625-636.	6.1	77
41	Synthesis and properties of microencapsulated stearic acid/silica composites with graphene oxide for improving thermal conductivity as novel solar thermal storage materials. <i>Solar Energy Materials and Solar Cells</i> , 2019, 189, 197-205.	6.2	75
42	Experimental investigation on the photovoltaic-thermal solar heat pump air-conditioning system on water-heating mode. <i>Experimental Thermal and Fluid Science</i> , 2010, 34, 736-743.	2.7	74
43	Microencapsulation and thermal properties of myristic acid with ethyl cellulose shell for thermal energy storage. <i>Applied Energy</i> , 2018, 231, 494-501.	10.1	74
44	Performance evaluations and applications of photovoltaic-thermal collectors and systems. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 33, 467-483.	16.4	73
45	Experimental study on cool storage air-conditioning system with spherical capsules packed bed. <i>Energy and Buildings</i> , 2010, 42, 1056-1062.	6.7	70
46	Numerical study of a novel miniature compound parabolic concentrating photovoltaic/thermal collector with microencapsulated phase change slurry. <i>Energy Conversion and Management</i> , 2017, 153, 106-114.	9.2	70
47	Synthesis and Characterization of Microencapsulated Paraffin Microcapsules as Shape-Stabilized Thermal Energy Storage Materials. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2013, 17, 112-123.	2.6	64
48	Review on thermal conductivity improvement of phase change materials with enhanced additives for thermal energy storage. <i>Journal of Energy Storage</i> , 2022, 51, 104568.	8.1	61
49	Thermal performance simulations of a packed bed cool thermal energy storage system using n-tetradecane as phase change material. <i>International Journal of Thermal Sciences</i> , 2010, 49, 1752-1762.	4.9	60
50	Thermal properties and morphologies of MA-SA eutectics/CNTs as composite PCMs in thermal energy storage. <i>Energy and Buildings</i> , 2016, 127, 603-610.	6.7	56
51	Experimental investigation on n-octadecane/polystyrene/expanded graphite composites as form-stable thermal energy storage materials. <i>Energy</i> , 2018, 157, 625-632.	8.8	55
52	Preparation and thermal properties of n-eicosane/nano-SiO ₂ /expanded graphite composite phase-change material for thermal energy storage. <i>Materials Chemistry and Physics</i> , 2020, 240, 122178.	4.0	54
53	Performance evaluation of a novel solar photovoltaic-thermal collector with dual channel using microencapsulated phase change slurry as cooling fluid. <i>Energy Conversion and Management</i> , 2017, 145, 30-40.	9.2	52
54	Preparation and thermal properties of microencapsulated stearyl alcohol with silicon dioxide shell as thermal energy storage materials. <i>Applied Thermal Engineering</i> , 2020, 169, 114943.	6.0	52

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55	Dynamic performances modeling of a photovoltaic-thermal collector with water heating in buildings. <i>Energy and Buildings</i> , 2013, 66, 485-494.	6.7	51
56	Properties evaluation and applications of thermal energystorage materials in buildings. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 48, 500-522.	16.4	50
57	Encapsulation of inorganic phase change thermal storage materials and its effect on thermophysical properties: A review. <i>Solar Energy Materials and Solar Cells</i> , 2022, 241, 111747.	6.2	50
58	Dynamic discharging characteristics simulation on solar heat storage system with spherical capsules using paraffin as heat storage material. <i>Renewable Energy</i> , 2011, 36, 1190-1195.	8.9	49
59	Experimental investigation on performance of ice storage air-conditioning system with separate heat pipe. <i>Experimental Thermal and Fluid Science</i> , 2009, 33, 1149-1155.	2.7	48
60	Preparation and thermal properties of stearic acid/titanium dioxide composites as shape-stabilized phase change materials for building thermal energy storage. <i>Energy and Buildings</i> , 2014, 80, 352-357.	6.7	48
61	Flow and heat transfer characteristics of microencapsulated phase change slurry in thermal energy systems: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 134, 110101.	16.4	47
62	Preparation and thermal properties of n-octadecane/molecular sieve composites as form-stable thermal energy storage materials for buildings. <i>Energy and Buildings</i> , 2012, 49, 423-428.	6.7	43
63	Synthesis of shape-stabilized paraffin/silicon dioxide composites as phase change material for thermal energy storage. <i>Journal of Materials Science</i> , 2010, 45, 1672-1676.	3.7	41
64	Synthesis and characterization of microencapsulated sodium sulfate decahydrate as phase change energy storage materials. <i>Applied Energy</i> , 2019, 255, 113830.	10.1	39
65	Thermal properties of polyvinyl butyral/graphene composites as encapsulation materials for solar cells. <i>Solar Energy</i> , 2018, 161, 187-193.	6.1	37
66	Improved thermal properties of stearic acid/high density polyethylene/carbon fiber composite heat storage materials. <i>Solar Energy Materials and Solar Cells</i> , 2021, 219, 110782.	6.2	37
67	Preparation and thermal properties of form-stable palmitic acid/active aluminum oxide composites as phase change materials for latent heat storage. <i>Materials Chemistry and Physics</i> , 2012, 137, 558-564.	4.0	33
68	Dynamic characteristics modeling of a hybrid photovoltaic-thermal solar collector with active cooling in buildings. <i>Energy and Buildings</i> , 2014, 78, 215-221.	6.7	33
69	Discharging characteristics modeling of cool thermal energy storage system with coil pipes using n-tetradecane as phase change material. <i>Applied Thermal Engineering</i> , 2012, 37, 336-343.	6.0	32
70	Thermal and electrical characterization of polymer/ceramic composites with polyvinyl butyral matrix. <i>Materials Chemistry and Physics</i> , 2018, 205, 401-415.	4.0	30
71	Synthesis and characterization of chain-extended and branched polyurethane copolymers as form stable phase change materials for solar thermal conversion storage. <i>Solar Energy Materials and Solar Cells</i> , 2018, 186, 14-28.	6.2	27
72	Preparation and characteristics of composite phase change material (CPCM) with SiO ₂ and diatomite as endothermal-hydroscopic material. <i>Energy and Buildings</i> , 2015, 86, 1-6.	6.7	26

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73	Thermal properties and characterization of palmitic acid/nano silicon dioxide/graphene nanoplatelet for thermal energy storage. International Journal of Energy Research, 2020, 44, 5621-5633.	4.5	26
74	Dynamic thermal characteristics analysis of microencapsulated phase change suspensions flowing through rectangular mini-channels for thermal energy storage. Energy and Buildings, 2017, 134, 37-51.	6.7	25
75	Dynamic Characteristics Modeling of a Hybrid Photovoltaic-Thermal Heat Pump System. International Journal of Green Energy, 2010, 7, 537-551.	3.8	24
76	Exergy analysis of ice storage air-conditioning system with heat pipe during charging period. Energy for Sustainable Development, 2010, 14, 149-153.	4.5	19
77	Dynamic characteristics of cool thermal energy storage systems—a review. International Journal of Green Energy, 2016, 13, 1-13.	3.8	19
78	Numerical evaluation on the flow and heat transfer characteristics of microencapsulated phase change slurry flowing in a circular tube. Applied Thermal Engineering, 2018, 144, 845-853.	6.0	19
79	Thermal properties improvement of lauric acid/iron foam composites with graphene nanoplates as thermal energy storage materials. Journal of Energy Storage, 2020, 27, 101163.	8.1	18
80	Enhanced thermal conductivity of palmitic acid/copper foam composites with carbon nanotube as thermal energy storage materials. Journal of Energy Storage, 2021, 40, 102783.	8.1	17
81	Thermal properties of stearic acid/active aluminum oxide/graphene nanoplates composite phase change materials for heat storage. Materials Chemistry and Physics, 2021, 269, 124747.	4.0	17
82	Synthesis and thermal properties of 1-octadecanol/nano-TiO ₂ /carbon nanofiber composite phase change materials for thermal energy storage. Materials Chemistry and Physics, 2021, 272, 125041.	4.0	16
83	Performance optimization of a photovoltaic/thermal collector using microencapsulated phase change slurry. International Journal of Energy Research, 2020, 44, 1812-1827.	4.5	15
84	Numerical flow characteristics of microencapsulated phase change slurry flowing in a helically coiled tube for thermal energy storage. Energy, 2021, 223, 120128.	8.8	14
85	Thermal properties of 1-hexadecanol/high density polyethylene/graphene nanoplates composites as form-stable heat storage materials. Solar Energy Materials and Solar Cells, 2022, 237, 111580.	6.2	14
86	Structural transitions for 2D systems with competing interactions in logarithmic traps. Journal of Chemical Physics, 2020, 152, 054906.	3.0	4
87	Solidification Characteristics Modeling of Phase Change Material in Plate Capsule of Cool Storage System. International Journal of Green Energy, 2011, 8, 734-747.	3.8	3
88	Nonequilibrium pattern formation in circularly confined two-dimensional systems with competing interactions. Physical Review E, 2021, 103, 012604.	2.1	2
89	Thermal performances evaluation of a flat-plate solar collector using microencapsulated phase-change slurry as heat transfer medium. International Journal of Energy Research, 2022, 46, 14044-14059.	4.5	2
90	Thermal properties of myristyl alcohol/polyvinyl butyral/carbon nanotubes as composite phase change materials for thermal energy storage. International Journal of Energy Research, 2022, 46, 15804-15815.	4.5	2

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91	Thermal Performance of Microencapsulated Phase-Change Slurry in a Circular Tube for Heat Storage. Chemical Engineering and Technology, 0, , .	1.5	0