Guiyin Fang

List of Publications by Citations

88 papers	6,302 citations	46 h-index	79 g-index
92 ext. papers	7,695 ext. citations	7.9 avg, IF	6.74 L-index

#	Paper	IF	Citations
88	An overview of thermal energy storage systems. *Energy*, **2018**, 144, 341-378	7.9	444
87	Thermal energy storage materials and systems for solar energy applications. *Renewable and Sustainable Energy Reviews*, **2017**, 68, 693-706	16.2	416
86	Review on thermal conductivity enhancement, thermal properties and applications of phase change materials in thermal energy storage. *Renewable and Sustainable Energy Reviews*, **2018**, 82, 2730-2742	16.2	344
85	Preparation and characterization of nano-encapsulated n-tetradecane as phase change material for thermal energy storage. *Chemical Engineering Journal*, **2009**, 153, 217-221	14.7	251
84	Thermal conductivity enhancement of phase change materials for thermal energy storage: A review. *Renewable and Sustainable Energy Reviews*, **2016**, 62, 305-317	16.2	234
83	Synthesis and properties of microencapsulated paraffin composites with SiO2 shell as thermal energy storage materials. *Chemical Engineering Journal*, **2010**, 163, 154-159	14.7	211
82	Review on thermal performances and applications of thermal energy storage systems with inorganic phase change materials. *Energy*, **2018**, 165, 685-708	7.9	183
81	Morphological characterization and applications of phase change materials in thermal energy storage: A review. *Renewable and Sustainable Energy Reviews*, **2017**, 72, 128-145	16.2	162
80	Synthesis, characterization and applications of microencapsulated phase change materials in thermal energy storage: A review. *Energy and Buildings*, **2017**, 144, 276-294	7	160
79	Thermal properties and applications of microencapsulated PCM for thermal energy storage: A review. *Applied Thermal Engineering*, **2019**, 147, 841-855	5.8	155
78	Preparation and characterization of stearic acid/expanded graphite composites as thermal energy storage materials. *Energy*, **2010**, 35, 4622-4626	7.9	144
77	Development and applications of photovoltaic□thermal systems: A review. *Renewable and Sustainable Energy Reviews*, **2019**, 102, 249-265	16.2	130
76	Preparation and characteristics of microencapsulated palmitic acid with TiO2 shell as shape-stabilized thermal energy storage materials. *Solar Energy Materials and Solar Cells*, **2014**, 123, 183-188	6.4	127
75	Thermal properties and thermal conductivity enhancement of composite phase change materials using myristyl alcohol/metal foam for solar thermal storage. *Solar Energy Materials and Solar Cells*, **2017**, 170, 68-76	6.4	123
74	Synthesis and thermal properties of shape-stabilized lauric acid/activated carbon composites as phase change materials for thermal energy storage. *Solar Energy Materials and Solar Cells*, **2012**, 102, 131-136	6.4	112
73	Synthesis and thermal properties of fatty acid eutectics and diatomite composites as shape-stabilized phase change materials with enhanced thermal conductivity. *Solar Energy Materials and Solar Cells*, **2015**, 141, 218-224	6.4	110
72	Preparation and properties of palmitic acid/SiO2 composites with flame retardant as thermal energy storage materials. *Solar Energy Materials and Solar Cells*, **2011**, 95, 1875-1881	6.4	100

71	Comparative analyses on dynamic performances of photovoltaic□thermal solar collectors integrated with phase change materials. *Energy Conversion and Management*, **2017**, 131, 79-89	10.6	99
70	Synthesis and thermal properties of the MA/HDPE composites with nano-additives as form-stable PCM with improved thermal conductivity. *Applied Energy*, **2016**, 180, 116-129	10.7	91
69	Preparation, thermal properties and applications of shape-stabilized thermal energy storage materials. *Renewable and Sustainable Energy Reviews*, **2014**, 40, 237-259	16.2	88
68	Preparation and properties of lauric acid/silicon dioxide composites as form-stable phase change materials for thermal energy storage. *Materials Chemistry and Physics*, **2010**, 122, 533-536	4.4	88
67	Palmitic acid/polyvinyl butyral/expanded graphite composites as form-stable phase change materials for solar thermal energy storage. *Applied Energy*, **2018**, 228, 1801-1809	10.7	87
66	Synthesis and characterization of microencapsulated paraffin with titanium dioxide shell as shape-stabilized thermal energy storage materials in buildings. *Energy and Buildings*, **2014**, 72, 31-37	7	85
65	Microstructure and thermal properties of cetyl alcohol/high density polyethylene composite phase change materials with carbon fiber as shape-stabilized thermal storage materials. *Applied Energy*, **2017**, 200, 19-27	10.7	84
64	Preparation and characteristics of microencapsulated stearic acid as composite thermal energy storage material in buildings. *Energy and Buildings*, **2013**, 62, 469-474	7	82
63	Dynamic performances of solar heat storage system with packed bed using myristic acid as phase change material. *Energy and Buildings*, **2011**, 43, 1091-1096	7	79
62	Dynamic performance analysis of photovoltaic□thermal solar collector with dual channels for different fluids. *Energy Conversion and Management*, **2016**, 120, 13-24	10.6	74
61	Synthesis and properties of microencapsulated octadecane with silica shell as shape□stabilized thermal energy storage materials. *Solar Energy Materials and Solar Cells*, **2017**, 160, 1-6	6.4	73
60	Synthesis and characterization of microencapsulated myristic acid□palmitic acid eutectic mixture as phase change material for thermal energy storage. *Applied Energy*, **2017**, 203, 677-685	10.7	72
59	Preparation, heat transfer and flow properties of microencapsulated phase change materials for thermal energy storage. *Renewable and Sustainable Energy Reviews*, **2016**, 66, 399-414	16.2	70
58	Preparation and heat transfer characteristics of microencapsulated phase change material slurry: A review. *Renewable and Sustainable Energy Reviews*, **2011**, 15, 4624-4632	16.2	69
57	Maximizing the energy output of a photovoltaic□thermal solar collector incorporating phase change materials. *Energy and Buildings*, **2017**, 153, 382-391	7	68
56	Preparation and properties of shape-stabilized phase change materials based on fatty acid eutectics and cellulose composites for thermal energy storage. *Energy*, **2015**, 80, 98-103	7.9	65
55	Preparation and characterization of flame retardant n-hexadecane/silicon dioxide composites as thermal energy storage materials. *Journal of Hazardous Materials*, **2010**, 181, 1004-9	12.8	65
54	Experimental study on cool storage air-conditioning system with spherical capsules packed bed. *Energy and Buildings*, **2010**, 42, 1056-1062	7	63

53	Performance evaluations and applications of photovoltaic-thermal collectors and systems. *Renewable and Sustainable Energy Reviews*, **2014**, 33, 467-483	16.2	58
52	Comparative simulation analyses on dynamic performances of photovoltaic-thermal solar collectors with different configurations. *Energy Conversion and Management*, **2014**, 87, 778-786	10.6	57
51	Experimental investigation on the photovoltaic-thermal solar heat pump air-conditioning system on water-heating mode. *Experimental Thermal and Fluid Science*, **2010**, 34, 736-743	3	57
50	Synthesis and Characterization of Microencapsulated Paraffin Microcapsules as Shape-Stabilized Thermal Energy Storage Materials. *Nanoscale and Microscale Thermophysical Engineering*, **2013**, 17, 112-123	3.7	56
49	Improved thermal properties of stearyl alcohol/high density polyethylene/expanded graphite composite phase change materials for building thermal energy storage. *Energy and Buildings*, **2017**, 153, 41-49	7	56
48	Preparation and thermal properties of n-octadecane/stearic acid eutectic mixtures with hexagonal boron nitride as phase change materials for thermal energy storage. *Energy and Buildings*, **2016**, 131, 35-41	7	55
47	Synthesis, characterization and properties of palmitic acid/high density polyethylene/graphene nanoplatelets composites as form-stable phase change materials. *Solar Energy Materials and Solar Cells*, **2016**, 155, 421-429	6.4	55
46	Thermal performance simulations of a packed bed cool thermal energy storage system using n-tetradecane as phase change material. *International Journal of Thermal Sciences*, **2010**, 49, 1752-1762	4.1	53
45	Preparation, characterization and thermal properties of fatty acid eutectics/bentonite/expanded graphite composites as novel form-stable thermal energy storage materials. *Solar Energy Materials and Solar Cells*, **2017**, 166, 157-166	6.4	52
44	Thermal properties and morphologies of MA-SA eutectics/CNTs as composite PCMs in thermal energy storage. *Energy and Buildings*, **2016**, 127, 603-610	7	48
43	Synthesis and properties of microencapsulated stearic acid/silica composites with graphene oxide for improving thermal conductivity as novel solar thermal storage materials. *Solar Energy Materials and Solar Cells*, **2019**, 189, 197-205	6.4	48
42	Properties evaluation and applications of thermal energystorage materials in buildings. *Renewable and Sustainable Energy Reviews*, **2015**, 48, 500-522	16.2	43
41	Experimental investigation on performance of ice storage air-conditioning system with separate heat pipe. *Experimental Thermal and Fluid Science*, **2009**, 33, 1149-1155	3	43
40	Dynamic discharging characteristics simulation on solar heat storage system with spherical capsules using paraffin as heat storage material. *Renewable Energy*, **2011**, 36, 1190-1195	8.1	43
39	Numerical analysis of photovoltaic-thermal collector using nanofluid as a coolant. *Solar Energy*, **2020**, 196, 625-636	6.8	43
38	Experimental investigation on n-octadecane/polystyrene/expanded graphite composites as form-stable thermal energy storage materials. *Energy*, **2018**, 157, 625-632	7.9	42
37	Microencapsulation and thermal properties of myristic acid with ethyl cellulose shell for thermal energy storage. *Applied Energy*, **2018**, 231, 494-501	10.7	42
36	Preparation and thermal properties of stearic acid/titanium dioxide composites as shape-stabilized phase change materials for building thermal energy storage. *Energy and Buildings*, **2014**, 80, 352-357	7	41

35	Dynamic performances modeling of a photovoltaic□thermal collector with water heating in buildings. *Energy and Buildings*, **2013**, 66, 485-494	7	41
34	Numerical study of a novel miniature compound parabolic concentrating photovoltaic/thermal collector with microencapsulated phase change slurry. *Energy Conversion and Management*, **2017**, 153, 106-114	10.6	40
33	Preparation and thermal properties of n-octadecane/molecular sieve composites as form-stable thermal energy storage materials for buildings. *Energy and Buildings*, **2012**, 49, 423-428	7	38
32	Synthesis of shape-stabilized paraffin/silicon dioxide composites as phase change material for thermal energy storage. *Journal of Materials Science*, **2010**, 45, 1672-1676	4.3	36
31	Performance evaluation of a novel solar photovoltaic□thermal collector with dual channel using microencapsulated phase change slurry as cooling fluid. *Energy Conversion and Management*, **2017**, 145, 30-40	10.6	31
30	Dynamic characteristics modeling of a hybrid photovoltaic□thermal solar collector with active cooling in buildings. *Energy and Buildings*, **2014**, 78, 215-221	7	30
29	Preparation and thermal properties of n-eicosane/nano-SiO2/expanded graphite composite phase-change material for thermal energy storage. *Materials Chemistry and Physics*, **2020**, 240, 122178	4.4	30
28	Preparation and thermal properties of microencapsulated stearyl alcohol with silicon dioxide shell as thermal energy storage materials. *Applied Thermal Engineering*, **2020**, 169, 114943	5.8	29
27	Discharging characteristics modeling of cool thermal energy storage system with coil pipes using n-tetradecane as phase change material. *Applied Thermal Engineering*, **2012**, 37, 336-343	5.8	27
26	Preparation and thermal properties of form-stable palmitic acid/active aluminum oxide composites as phase change materials for latent heat storage. *Materials Chemistry and Physics*, **2012**, 137, 558-564	4.4	26
25	Thermal properties of polyvinyl butyral/graphene composites as encapsulation materials for solar cells. *Solar Energy*, **2018**, 161, 187-193	6.8	24
24	Preparation and characteristics of composite phase change material (CPCM) with SiO 2 and diatomite as endothermal-hydroscopic material. *Energy and Buildings*, **2015**, 86, 1-6	7	22
23	Dynamic Characteristics Modeling of a Hybrid Photovoltaic□Thermal Heat Pump System. *International Journal of Green Energy*, **2010**, 7, 537-551	3	22
22	Thermal and electrical characterization of polymer/ceramic composites with polyvinyl butyral matrix. *Materials Chemistry and Physics*, **2018**, 205, 401-415	4.4	22
21	Synthesis and characterization of chain-extended and branched polyurethane copolymers as form stable phase change materials for solar thermal conversion storage. *Solar Energy Materials and Solar Cells*, **2018**, 186, 14-28	6.4	20
20	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	7	19
19	Dynamic characteristics of cool thermal energy storage systems□ review. *International Journal of Green Energy*, **2016**, 13, 1-13	3	17
18	Flow and heat transfer characteristics of microencapsulated phase change slurry in thermal energy systems: A review. *Renewable and Sustainable Energy Reviews*, **2020**, 134, 110101	16.2	17

17	Synthesis and characterization of microencapsulated sodium sulfate decahydrate as phase change energy storage materials. *Applied Energy*, **2019**, 255, 113830	10.7	16
16	Improved thermal properties of stearic acid/high density polyethylene/carbon fiber composite heat storage materials. *Solar Energy Materials and Solar Cells*, **2021**, 219, 110782	6.4	16
15	Exergy analysis of ice storage air-conditioning system with heat pipe during charging period. *Energy for Sustainable Development*, **2010**, 14, 149-153	5.4	14
14	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	5.8	13
13	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	9
12	Thermal properties improvement of lauric acid/iron foam composites with graphene nanoplates as thermal energy storage materials. *Journal of Energy Storage*, **2020**, 27, 101163	7.8	9
11	Performance optimization of a photovoltaic/thermal collector using microencapsulated phase change slurry. *International Journal of Energy Research*, **2020**, 44, 1812-1827	4.5	7
10	Thermal properties of stearic acid/active aluminum oxide/graphene nanoplates composite phase change materials for heat storage. *Materials Chemistry and Physics*, **2021**, 269, 124747	4.4	6
9	Review on thermal conductivity improvement of phase change materials with enhanced additives for thermal energy storage. *Journal of Energy Storage*, **2022**, 51, 104568	7.8	4
8	Solidification Characteristics Modeling of Phase Change Material in Plate Capsule of Cool Storage System. *International Journal of Green Energy*, **2011**, 8, 734-747	3	3
7	Numerical flow characteristics of microencapsulated phase change slurry flowing in a helically coiled tube for thermal energy storage. *Energy*, **2021**, 223, 120128	7.9	3
6	Enhanced thermal conductivity of palmitic acid/copper foam composites with carbon nanotube as thermal energy storage materials. *Journal of Energy Storage*, **2021**, 40, 102783	7.8	3
5	Structural transitions for 2D systems with competing interactions in logarithmic traps. *Journal of Chemical Physics*, **2020**, 152, 054906	3.9	2
4	Synthesis and thermal properties of 1-octadecanol/nano-TiO2/carbon nanofiber composite phase change materials for thermal energy storage. *Materials Chemistry and Physics*, **2021**, 272, 125041	4.4	2
3	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	6.4	1
2	Encapsulation of inorganic phase change thermal storage materials and its effect on thermophysical properties: A review. *Solar Energy Materials and Solar Cells*, **2022**, 241, 111747	6.4	1
1	Nonequilibrium pattern formation in circularly confined two-dimensional systems with competing interactions. *Physical Review E*, **2021**, 103, 012604	2.4	0