

Xiaoming Fang

List of Publications by Year in descending order

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98
papers

8,362
citations

36203

51
h-index

45213

90
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98
all docs

98
docs citations

98
times ranked

6998
citing authors

#	ARTICLE	IF	CITATIONS
1	A hybrid thermal management system for lithium ion batteries combining phase change materials with forced-air cooling. <i>Applied Energy</i> , 2015, 148, 403-409.	5.1	510
2	Study on paraffin/expanded graphite composite phase change thermal energy storage material. <i>Energy Conversion and Management</i> , 2006, 47, 303-310.	4.4	426
3	Review on thermal management systems using phase change materials for electronic components, Li-ion batteries and photovoltaic modules. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 31, 427-438.	8.2	398
4	Preparation and thermal energy storage properties of paraffin/expanded graphite composite phase change material. <i>Applied Energy</i> , 2012, 91, 426-431.	5.1	387
5	Ultrathin g-C ₃ N ₄ nanosheets coupled with carbon nanodots as 2D/0D composites for efficient photocatalytic H ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2016, 193, 248-258.	10.8	322
6	Constructing a novel ternary Fe(III)/graphene/g-C ₃ N ₄ composite photocatalyst with enhanced visible-light driven photocatalytic activity via interfacial charge transfer effect. <i>Applied Catalysis B: Environmental</i> , 2016, 183, 231-241.	10.8	301
7	Thermal conductivity of an organic phase change material/expanded graphite composite across the phase change temperature range and a novel thermal conductivity model. <i>Energy Conversion and Management</i> , 2015, 102, 202-208.	4.4	248
8	Thermal energy storage cement mortar containing n-octadecane/expanded graphite composite phase change material. <i>Renewable Energy</i> , 2013, 50, 670-675.	4.3	239
9	In Situ Template-Free Ion-Exchange Process to Prepare Visible-Light-Active g-C ₃ N ₄ /NiS Hybrid Photocatalysts with Enhanced Hydrogen Evolution Activity. <i>Journal of Physical Chemistry C</i> , 2014, 118, 7801-7807.	1.5	227
10	Thermodynamic properties and thermal stability of ionic liquid-based nanofluids containing graphene as advanced heat transfer fluids for medium-to-high-temperature applications. <i>Renewable Energy</i> , 2014, 63, 519-523.	4.3	192
11	A combined numerical and experimental study on graphene/ionic liquid nanofluid based direct absorption solar collector. <i>Solar Energy Materials and Solar Cells</i> , 2015, 136, 177-186.	3.0	173
12	Textural and electronic structure engineering of carbon nitride via doping with N-deficient aromatic pyridine ring for improving photocatalytic activity. <i>Applied Catalysis B: Environmental</i> , 2015, 170-171, 10-16.	10.8	163
13	Thermal management performance of phase change materials with different thermal conductivities for Li-ion battery packs operated at low temperatures. <i>Energy</i> , 2018, 144, 977-983.	4.5	154
14	Grafting Fe(III) species on carbon nanodots/Fe-doped g-C ₃ N ₄ via interfacial charge transfer effect for highly improved photocatalytic performance. <i>Applied Catalysis B: Environmental</i> , 2017, 205, 173-181.	10.8	150
15	Study on preparation of montmorillonite-based composite phase change materials and their applications in thermal storage building materials. <i>Energy Conversion and Management</i> , 2008, 49, 718-723.	4.4	136
16	Novel Z-scheme visible-light-driven Ag ₃ PO ₄ /Ag/SiC photocatalysts with enhanced photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2015, 3, 4652-4658.	5.2	128
17	Novel slurry containing graphene oxide-grafted microencapsulated phase change material with enhanced thermo-physical properties and photo-thermal performance. <i>Solar Energy Materials and Solar Cells</i> , 2015, 143, 29-37.	3.0	125
18	Enhanced photocatalytic hydrogen evolution performance of mesoporous graphitic carbon nitride co-doped with potassium and iodine. <i>Applied Catalysis B: Environmental</i> , 2018, 221, 362-370.	10.8	122

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19	RT100/expand graphite composite phase change material with excellent structure stability, photo-thermal performance and good thermal reliability. <i>Solar Energy Materials and Solar Cells</i> , 2015, 140, 158-166.	3.0	118
20	A novel sebacic acid/expanded graphite composite phase change material for solar thermal medium-temperature applications. <i>Solar Energy</i> , 2014, 99, 283-290.	2.9	117
21	A novel montmorillonite-based composite phase change material and its applications in thermal storage building materials. <i>Energy and Buildings</i> , 2006, 38, 377-380.	3.1	116
22	Surfactant-free ionic liquid-based nanofluids with remarkable thermal conductivity enhancement at very low loading of graphene. <i>Nanoscale Research Letters</i> , 2012, 7, 314.	3.1	116
23	Experimental and numerical investigations on the thermal performance of building plane containing CaCl ₂ ·6H ₂ O/expanded graphite composite phase change material. <i>Applied Energy</i> , 2017, 193, 325-335.	5.1	112
24	A novel route combined precursor-hydrothermal pretreatment with microwave heating for preparing holey g-C ₃ N ₄ nanosheets with high crystalline quality and extended visible light absorption. <i>Applied Catalysis B: Environmental</i> , 2018, 225, 22-29.	10.8	108
25	A comprehensive review on phase change material emulsions: Fabrication, characteristics, and heat transfer performance. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 218-234.	3.0	99
26	Optical absorption property and photo-thermal conversion performance of graphene oxide/water nanofluids with excellent dispersion stability. <i>Solar Energy</i> , 2017, 148, 17-24.	2.9	96
27	Experimental and simulative investigations on a phase change material nano-emulsion-based liquid cooling thermal management system for a lithium-ion battery pack. <i>Energy</i> , 2020, 207, 118215.	4.5	95
28	Radiative properties of ionic liquid-based nanofluids for medium-to-high-temperature direct absorption solar collectors. <i>Solar Energy Materials and Solar Cells</i> , 2014, 130, 521-528.	3.0	94
29	Mesoporous g-C ₃ N ₄ nanosheets prepared by calcining a novel supramolecular precursor for high-efficiency photocatalytic hydrogen evolution. <i>Applied Surface Science</i> , 2018, 450, 46-56.	3.1	91
30	Experimental and numerical investigations on a flexible paraffin/fiber composite phase change material for thermal therapy mask. <i>Energy Storage Materials</i> , 2017, 6, 36-45.	9.5	89
31	A calcium chloride hexahydrate/expanded perlite composite with good heat storage and insulation properties for building energy conservation. <i>Renewable Energy</i> , 2017, 114, 733-743.	4.3	89
32	Highly stable graphite nanoparticle-dispersed phase change emulsions with little supercooling and high thermal conductivity for cold energy storage. <i>Applied Energy</i> , 2017, 188, 97-106.	5.1	86
33	MgCl ₂ ·6H ₂ O-Mg(NO ₃) ₂ ·6H ₂ O eutectic/SiO ₂ composite phase change material with improved thermal reliability and enhanced thermal conductivity. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 195-201.	3.0	83
34	Insight into the Enhanced Photocatalytic Activity of Potassium and Iodine Codoped Graphitic Carbon Nitride Photocatalysts. <i>Journal of Physical Chemistry C</i> , 2016, 120, 25328-25337.	1.5	82
35	Tuning and Enhancing White Light Emission of II-VI Based Inorganic-Organic Hybrid Semiconductors as Single-Phased Phosphors. <i>Chemistry of Materials</i> , 2012, 24, 1710-1717.	3.2	81
36	Preparation of graphite nanoparticles-modified phase change microcapsules and their dispersed slurry for direct absorption solar collectors. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 159-166.	3.0	80

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37	Modification of expanded graphite and its adsorption for hydrated salt to prepare composite PCMs. <i>Applied Thermal Engineering</i> , 2018, 133, 446-451.	3.0	75
38	Novel facile self-assembly approach to construct graphene oxide-decorated phase-change microcapsules with enhanced photo-to-thermal conversion performance. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4535-4543.	5.2	75
39	A polymer-coated calcium chloride hexahydrate/expanded graphite composite phase change material with enhanced thermal reliability and good applicability. <i>Composites Science and Technology</i> , 2018, 156, 78-86.	3.8	74
40	Battery thermal management based on multiscale encapsulated inorganic phase change material of high stability. <i>Applied Thermal Engineering</i> , 2021, 193, 117002.	3.0	73
41	Graphite nanoparticles-dispersed paraffin/water emulsion with enhanced thermal-physical property and photo-thermal performance. <i>Solar Energy Materials and Solar Cells</i> , 2016, 147, 101-107.	3.0	71
42	Robust route to highly porous graphitic carbon nitride microtubes with preferred adsorption ability via rational design of one-dimension supramolecular precursors for efficient photocatalytic CO ₂ conversion. <i>Nano Energy</i> , 2020, 77, 105104.	8.2	71
43	Three-dimensional g-C ₃ N ₄ aggregates of hollow bubbles with high photocatalytic degradation of tetracycline. <i>Carbon</i> , 2018, 136, 103-112.	5.4	67
44	Improving the heat storage/release rate and photo-thermal conversion performance of an organic PCM/expanded graphite composite block. <i>Solar Energy Materials and Solar Cells</i> , 2019, 201, 110081.	3.0	67
45	Preparation of phase change material emulsions with good stability and little supercooling by using a mixed polymeric emulsifier for thermal energy storage. <i>Solar Energy Materials and Solar Cells</i> , 2018, 176, 381-390.	3.0	66
46	Effect of morphology of carbon nanomaterials on thermo-physical characteristics, optical properties and photo-thermal conversion performance of nanofluids. <i>Renewable Energy</i> , 2016, 99, 888-897.	4.3	65
47	A High-Efficiency and Low-Cost Interfacial Evaporation System Based on Graphene-Loaded Pyramid Polyurethane Sponge for Wastewater and Seawater Treatments. <i>ACS Applied Energy Materials</i> , 2019, 2, 7223-7232.	2.5	64
48	Warming-Up Effects of Phase Change Materials on Lithium-Ion Batteries Operated at Low Temperatures. <i>Energy Technology</i> , 2016, 4, 1071-1076.	1.8	63
49	A novel process for preparing molten salt/expanded graphite composite phase change blocks with good uniformity and small volume expansion. <i>Solar Energy Materials and Solar Cells</i> , 2017, 169, 280-286.	3.0	56
50	Mini-channel cold plate with nano phase change material emulsion for Li-ion battery under high-rate discharge. <i>Applied Energy</i> , 2020, 279, 115808.	5.1	56
51	Design methods for large scale dye-sensitized solar modules and the progress of stability research. <i>Renewable and Sustainable Energy Reviews</i> , 2010, 14, 3178-3184.	8.2	51
52	One-pot hydrothermal synthesis of Ni-doped ZnIn ₂ S ₄ nanostructured film photoelectrodes with enhanced photoelectrochemical performance. <i>Applied Surface Science</i> , 2016, 370, 252-259.	3.1	51
53	Preparation and photo-thermal conversion performance of modified graphene/ionic liquid nanofluids with excellent dispersion stability. <i>Solar Energy Materials and Solar Cells</i> , 2017, 170, 219-232.	3.0	51
54	Experimental and numerical investigation of form-stable dodecane/hydrophobic fumed silica composite phase change materials for cold energy storage. <i>Energy Conversion and Management</i> , 2015, 105, 817-825.	4.4	47

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55	Experimental investigation on the thermal performance of double-layer PCM radiant floor system containing two types of inorganic composite PCMs. <i>Energy and Buildings</i> , 2020, 211, 109806.	3.1	47
56	Hydrophilic Modification of Expanded Graphite to Prepare a High-Performance Composite Phase Change Block Containing a Hydrate Salt. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 14799-14806.	1.8	45
57	A sodium acetate trihydrate-formamide/expanded perlite composite with high latent heat and suitable phase change temperatures for use in building roof. <i>Construction and Building Materials</i> , 2019, 226, 859-867.	3.2	45
58	Molecular engineering of supramolecular precursor to modulate g-C ₃ N ₄ for boosting photocatalytic hydrogen evolution. <i>Carbon</i> , 2020, 164, 337-348.	5.4	45
59	Fabrication and characterization of nanocapsules containing n-dodecanol by miniemulsion polymerization using interfacial redox initiation. <i>Colloid and Polymer Science</i> , 2012, 290, 307-314.	1.0	41
60	A numerical study of building integrated with CaCl ₂ ·6H ₂ O/expanded graphite composite phase change material. <i>Applied Thermal Engineering</i> , 2017, 126, 480-488.	3.0	41
61	Compatible paraffin@SiO ₂ microcapsules/polydimethylsiloxane composites with heat storage capacity and enhanced thermal conductivity for thermal management. <i>Composites Science and Technology</i> , 2022, 218, 109192.	3.8	41
62	Two types of composite phase change panels containing a ternary hydrated salt mixture for use in building envelope and ventilation system. <i>Energy Conversion and Management</i> , 2018, 177, 306-314.	4.4	39
63	Optimization on the photo-thermal conversion performance of graphite nanoplatelets decorated phase change material emulsions. <i>Solar Energy Materials and Solar Cells</i> , 2018, 186, 340-348.	3.0	38
64	A direct absorption solar collector based on a water-ethylene glycol based nanofluid with anti-freeze property and excellent dispersion stability. <i>Renewable Energy</i> , 2019, 133, 760-769.	4.3	36
65	Novel wall panels containing CaCl ₂ ·6H ₂ O-Mg(NO ₃) ₂ ·6H ₂ O/expanded graphite composites with different phase change temperatures for building energy savings. <i>Energy and Buildings</i> , 2018, 176, 407-417.	3.1	35
66	Microinfiltration of Mg(NO ₃) ₂ ·6H ₂ O into g-C ₃ N ₄ and macroencapsulation with commercial sealants: A two-step method to enhance the thermal stability of inorganic composite phase change materials. <i>Applied Energy</i> , 2019, 253, 113540.	5.1	34
67	A delayed cooling system coupling composite phase change material and nano phase change material emulsion. <i>Applied Thermal Engineering</i> , 2021, 191, 116888.	3.0	34
68	A nontoxic and low-cost hydrothermal route for synthesis of hierarchical Cu ₂ ZnSnS ₄ particles. <i>Nanoscale Research Letters</i> , 2014, 9, 208.	3.1	32
69	Numerical simulation on the thermal performance of a PCM-containing ventilation system with a continuous change in inlet air temperature. <i>Renewable Energy</i> , 2020, 145, 1608-1619.	4.3	32
70	Preparation, Mechanical and Thermal Properties of Cement Board with Expanded Perlite Based Composite Phase Change Material for Improving Buildings Thermal Behavior. <i>Materials</i> , 2015, 8, 7702-7713.	1.3	31
71	Novel MgCl ₂ -KCl/expanded graphite/graphite paper composite phase change blocks with high thermal conductivity and large latent heat. <i>Solar Energy</i> , 2018, 159, 226-233.	2.9	30
72	Enhanced photocatalytic performance of polymeric C ₃ N ₄ doped with theobromine composed of an imidazole ring and a pyrimidine ring. <i>Chinese Journal of Catalysis</i> , 2019, 40, 875-885.	6.9	30

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73	A one-step process for preparing a phenyl-modified g-C ₃ N ₄ green phosphor with a high quantum yield. RSC Advances, 2017, 7, 51702-51710.	1.7	27
74	In-situ microwave-assisted heating synthesis of a high-performance g-C ₃ N ₄ /carbon nanotubes composite photocatalyst with good contact interfaces. Materials Research Bulletin, 2018, 106, 152-161.	2.7	26
75	Insight into the Enhanced Hydrogen Evolution Activity of 2,4-Diaminopyrimidine-Doped Graphitic Carbon Nitride Photocatalysts. Journal of Physical Chemistry C, 2019, 123, 2228-2237.	1.5	25
76	A highly stable hydroxylated graphene/ethylene glycol-water nanofluid with excellent extinction property at a low loading for direct absorption solar collectors. Thermochimica Acta, 2020, 684, 178487.	1.2	24
77	Thermal performance of CaCl ₂ ·6H ₂ O/expanded perlite composite phase change boards embedded in aluminous gusset plates for building energy conservation. Energy and Buildings, 2017, 155, 484-491.	3.1	23
78	Growth of the Phase Change Enthalpy Induced by the Crystal Transformation of an Inorganic-Organic Eutectic Mixture of Magnesium Nitrate Hexahydrate-Glutaric Acid. Industrial & Engineering Chemistry Research, 2020, 59, 6751-6760.	1.8	23
79	Performance enhancement of a photovoltaic module using phase change material nanoemulsion as a novel cooling fluid. Solar Energy Materials and Solar Cells, 2021, 225, 111060.	3.0	21
80	Simulative optimization on energy saving performance of phase change panels with different phase transition temperatures. Sustainable Cities and Society, 2020, 52, 101833.	5.1	20
81	Comparison of Heat Transfer and Pressure Drop for the Helically Baffled Heat Exchanger Combined with Three-Dimensional and Two-Dimensional Finned Tubes. Heat Transfer Engineering, 2006, 27, 17-22.	1.2	17
82	Hydrothermal transformation of titanate nanotubes into single-crystalline TiO ₂ nanomaterials with controlled phase composition and morphology. Materials Research Bulletin, 2010, 45, 799-804.	2.7	17
83	Optimal roof structure with multilayer cooling function materials for building energy saving. International Journal of Energy Research, 2020, 44, 1594-1606.	2.2	17
84	Compounding MgCl ₂ ·6H ₂ O with NH ₄ Al(SO ₄) ₂ ·12H ₂ O or KAl(SO ₄) ₂ ·12H ₂ O to Obtain Binary Hydrated Salts as High-Performance Phase Change Materials. Molecules, 2019, 24, 363.	1.7	16
85	A shape-stabilized MgCl ₂ ·6H ₂ O-Mg(NO ₃) ₂ ·6H ₂ O/expanded graphite composite phase change material with high thermal conductivity and stability. Journal of Applied Electrochemistry, 2018, 48, 1131-1138.	1.5	15
86	Crafting visible-light-absorbing dye-doped phase change microspheres for enhancing solar-thermal utilization performance. Solar Energy Materials and Solar Cells, 2020, 218, 110759.	3.0	14
87	Experimental and Numerical Investigation on Non-Newtonian Nanofluids Flowing in Shell Side of Helical Baffled Heat Exchanger Combined with Elliptic Tubes. Applied Sciences (Switzerland), 2017, 7, 48.	1.3	13
88	Research progress on novel solar steam generation system based on black nanomaterials. Canadian Journal of Chemical Engineering, 2018, 96, 2086-2099.	0.9	13
89	Exploration of a thermal therapy respirator by introducing a composite phase change block into a commercial mask. International Journal of Thermal Sciences, 2019, 142, 156-162.	2.6	13
90	Thermal protection of electronic devices based on thermochemical energy storage. Applied Thermal Engineering, 2021, 186, 116507.	3.0	12

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91	Modifying the bridging N atoms of polymeric carbon nitride to achieve highly enhanced photocatalytic hydrogen evolution. <i>Applied Surface Science</i> , 2020, 530, 147287.	3.1	11
92	Structure effect of the envelope coupled with heat reflective coating and phase change material in lowering indoor temperature. <i>Journal of Energy Storage</i> , 2021, 41, 102963.	3.9	10
93	Experimental investigation of heat transfer and pressure drop characteristics of non-Newtonian nanofluids flowing in the shell-side of a helical baffle heat exchanger with low-finned tubes. <i>Heat and Mass Transfer</i> , 2017, 53, 2813-2827.	1.2	9
94	A recyclable thermochromic elastic phase change oleogel for cold compress therapy. <i>Applied Thermal Engineering</i> , 2017, 124, 1224-1232.	3.0	8
95	Numerical Study on Energy-Saving Performance of a New Type of Phase Change Material Room. <i>Energies</i> , 2021, 14, 3874.	1.6	5
96	Two-Step Precise Determination of the Parameters of the Single-Diode Equivalent Circuit Model for Dye-Sensitized Solar Cells. <i>Heat Transfer Engineering</i> , 2014, 35, 1007-1013.	1.2	4
97	From pure water to hydrogen peroxide on a novel 2,5,8-triamino-tri-s-triazine (melem)-derived photocatalyst with a high apparent quantum efficiency. <i>Journal of Colloid and Interface Science</i> , 2022, 625, 680-691.	5.0	4
98	Enhanced charge separation and transport efficiency induced by vertical slices on the surface of carbon nitride for visible-light-driven hydrogen evolution. <i>RSC Advances</i> , 2019, 9, 4404-4414.	1.7	3