

Kai Zhang

List of Publications by Year in descending order

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63
papers

1,413
citations

304743

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361022

35
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docs citations

63
times ranked

1127
citing authors

#	ARTICLE	IF	CITATIONS
1	Modified Phase Change Microcapsules with Calcium Carbonate and Graphene Oxide Shells for Enhanced Energy Storage and Leakage Prevention. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 5182-5191.	6.7	120
2	Energy saving and economic analysis of a new hybrid radiative cooling system for single-family houses in the USA. <i>Applied Energy</i> , 2018, 224, 371-381.	10.1	112
3	Recent advancements on thermal management and evaluation for data centers. <i>Applied Thermal Engineering</i> , 2018, 142, 215-231.	6.0	75
4	Microencapsulated Paraffin Phase-Change Material with Calcium Carbonate Shell for Thermal Energy Storage and Solar-Thermal Conversion. <i>Langmuir</i> , 2018, 34, 14254-14264.	3.5	73
5	Novel segregated-structure phase change materials composed of paraffin@graphene microcapsules with high latent heat and thermal conductivity. <i>Journal of Materials Science</i> , 2018, 53, 2566-2575.	3.7	64
6	Review of underfloor air distribution technology. <i>Energy and Buildings</i> , 2014, 85, 180-186.	6.7	47
7	Preparation and characterization of β -ray radiation shielding PbWO ₄ /EPDM composite. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2016, 309, 1097-1103.	1.5	47
8	Highly dispersed melamine cyanurate flame-retardant epoxy resin composites. <i>Polymer International</i> , 2017, 66, 85-91.	3.1	45
9	Multifunctional phase change microcapsules based on graphene oxide Pickering emulsion for photothermal energy conversion and superhydrophobicity. <i>International Journal of Energy Research</i> , 2020, 44, 4464-4474.	4.5	44
10	Effect of branching level on the performance of constructal theory based Y-shaped liquid cooling heat sink. <i>Applied Thermal Engineering</i> , 2020, 168, 114824.	6.0	38
11	Study on Performance of Storage Tanks in Solar Water Heater System in Charge and Discharge Progress. <i>Energy Procedia</i> , 2014, 48, 384-393.	1.8	35
12	Sub-ambient radiative cooling and its application in buildings. <i>Building Simulation</i> , 2020, 13, 1165-1189.	5.6	33
13	Experimental study on the characteristics of supply air for UFAD system with perforated tiles. <i>Energy and Buildings</i> , 2014, 80, 1-6.	6.7	29
14	Paraffin/carbon aerogel phase change materials with high enthalpy and thermal conductivity. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2017, 25, 512-518.	2.1	29
15	Dynamical source term estimation in a multi-compartment building under time-varying airflow. <i>Building and Environment</i> , 2019, 160, 106162.	6.9	28
16	Novel Shape-Stabilized Phase Change Materials Based on Paraffin/EPDM@Graphene with High Thermal Conductivity and Low Leakage Rate. <i>Energy & Fuels</i> , 2020, 34, 5024-5031.	5.1	28
17	Graphene-carbon nanotube hybrid aerogel/polyethylene glycol phase change composite for thermal management. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2020, 28, 656-662.	2.1	26
18	Analysis of the impact of a novel cool roof on cooling performance for a low-rise prefabricated building in China. <i>Building Services Engineering Research and Technology</i> , 2021, 42, 26-44.	1.8	26

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19	Electrostatic interaction-based self-assembly of paraffin@graphene microcapsules with remarkable thermal conductivity for thermal energy storage. Fullerenes Nanotubes and Carbon Nanostructures, 2019, 27, 120-127.	2.1	25
20	Carborane polyimides, synthesis and characterization. RSC Advances, 2014, 4, 53628-53633.	3.6	24
21	Airflow uniformity optimization for modular data center based on the constructal T-shaped underfloor air ducts. Applied Thermal Engineering, 2019, 155, 489-500.	6.0	24
22	Syntheses of novel soluble carborane polyimides with ultrahigh thermal stability. Polymer International, 2015, 64, 1715-1721.	3.1	23
23	Paraffin-based shape-stable phase change materials with graphene/carbon nanotube three-dimensional network structure. Fullerenes Nanotubes and Carbon Nanostructures, 2019, 27, 492-497.	2.1	23
24	Modelling study of the low-pump-power demand constructal T-shaped pipe network for a large scale radiative cooled-cold storage system. Applied Thermal Engineering, 2017, 127, 1564-1573.	6.0	22
25	Simplified model for desired airflow rate in underfloor air distribution (UFAD) systems. Applied Thermal Engineering, 2016, 93, 244-250.	6.0	21
26	Paraffin@graphene/silicon rubber form-stable phase change materials for thermal energy storage. Fullerenes Nanotubes and Carbon Nanostructures, 2019, 27, 626-631.	2.1	21
27	Non-intrusive measurement method for the window opening behavior. Energy and Buildings, 2019, 197, 171-176.	6.7	21
28	Phase-change composites silicone rubber/paraffin@ SiO_2 microcapsules with different core/shell ratio for thermal management. International Journal of Energy Research, 2021, 45, 18033-18047.	4.5	20
29	On the characteristics of airflow through the perforated tiles for raised-floor data centers. Journal of Building Engineering, 2017, 10, 60-68.	3.4	19
30	Core@double-shell structured multifunctional phase change microcapsules based on modified graphene oxide Pickering emulsion. International Journal of Energy Research, 2021, 45, 3257-3268.	4.5	19
31	Multifunctional silicone rubber/paraffin@ PbWO_4 phase-change composites for thermoregulation and gamma radiation shielding. International Journal of Energy Research, 2020, 44, 7674-7686.	4.5	17
32	Numerical Study on the Thermal Environment of UFAD System with Solar Chimney for the Data Center. Energy Procedia, 2014, 48, 1047-1054.	1.8	15
33	Graphene-based composite with microwave absorption property prepared by in situ reduction. Polymer Composites, 2014, 35, 461-467.	4.6	15
34	Exergy and energy analysis of a double evaporating temperature chiller. Energy and Buildings, 2018, 165, 464-471.	6.7	15
35	Phase change microcapsules with lead tungstate shell for gamma radiation shielding and thermal energy storage. International Journal of Energy Research, 2019, 43, 8398.	4.5	14
36	Experimental study on the performance of a tree-shaped mini-channel liquid cooling heat sink. Case Studies in Thermal Engineering, 2022, 30, 101780.	5.7	14

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37	Gas distribution mapping for indoor environments based on laser absorption spectroscopy: Development of an improved tomographic algorithm. <i>Building and Environment</i> , 2020, 172, 106724.	6.9	13
38	Multi-angle injection molding to enhance the thermal conductivity of carbon fiber/polysulfone composite. <i>Polymer Composites</i> , 2017, 38, 185-191.	4.6	12
39	In-situ synthesis and textural evolution of the novel carbonaceous SiC/mullite aerogel via polymer-derived ceramics route. <i>Ceramics International</i> , 2017, 43, 9896-9905.	4.8	12
40	Nanodiamond-Modified Microencapsulated Phase-Change Materials with Superhydrophobicity and High Light-to-Thermal Conversion Efficiency. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 21736-21744.	3.7	12
41	Volume absorption laser energy meter for high energy laser by water absorption. <i>Applied Physics B: Lasers and Optics</i> , 2013, 110, 573-578.	2.2	11
42	Preparation and light-to-heat conversion efficiency of paraffin/graphene aerogel shape-stable phase change materials. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2019, 27, 375-381.	2.1	11
43	Estimation of pollutant sources in multi-zone buildings through different deconvolution algorithms. <i>Building Simulation</i> , 2022, 15, 817-830.	5.6	11
44	Solutions to mitigate the impact of measurement noise on the air pollution source strength estimation in a multi-zone building. <i>Building Simulation</i> , 2020, 13, 1329-1337.	5.6	9
45	Effects of molding on property of thermally conductive and electrically insulating polyamide 6-based composite. <i>Journal of Thermoplastic Composite Materials</i> , 2019, 32, 1190-1203.	4.2	8
46	Study on the performance of a miniscale channel heat sink with Y-shaped unit channels based on entransy analysis. <i>Applied Thermal Engineering</i> , 2022, 209, 118295.	6.0	8
47	Effect of roof and ceiling configuration on energy performance of a metamaterial-based cool roof for low-rise office building in China. <i>Indoor and Built Environment</i> , 2021, 30, 1739-1750.	2.8	7
48	Enhanced Creep Resistance and Mechanical Properties for CL ₂₀ and FOX ₇ -based PBXs by Crystal Surface Modification. <i>Propellants, Explosives, Pyrotechnics</i> , 2021, 46, 572-578.	1.6	7
49	Study on the Performance of a Y-Shaped Liquid Cooling Heat Sink Based on Constructal Law for Electronic Chip Cooling. <i>Journal of Thermal Science and Engineering Applications</i> , 2021, 13, .	1.5	6
50	Experimental parametric study on the temperature distribution of an underfloor air distribution (UFAD) system with grille diffusers. <i>Indoor and Built Environment</i> , 2016, 25, 748-757.	2.8	5
51	Entransy analysis on the performance of the counter-flow heat exchangers for a double evaporating temperature chiller. <i>International Journal of Refrigeration</i> , 2019, 98, 89-97.	3.4	5
52	Molecular investigation on the anomalous phenomenon at liquid desiccant surfaces for air conditioning. <i>Building Simulation</i> , 2020, 13, 599-608.	5.6	5
53	Superhydrophobic Melamine-formaldehyde Foam Prepared by In-situ Coprecipitation. <i>Chemistry Letters</i> , 2018, 47, 414-416.	1.3	4
54	Synergistic enhancement of thermal conductivity between SiC _w and h-BN in MVQ-based composite. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2019, 27, 434-439.	2.1	4

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55	Air-conditioning system with underfloor air distribution integrated solar chimney in data center. <i>Procedia Engineering</i> , 2017, 205, 3420-3427.	1.2	3
56	ENERGY SAVING ANALYSIS OF A METAMATERIAL BASED RADIATIVE COOLING SYSTEM FOR LOW-RISE RESIDENTIAL BUILDINGS BY INTEGRATING WITH RADIANT FLOOR. , 2018, , .		3
57	Electro-optical equivalent calibration technology for high-energy laser energy meters. <i>Review of Scientific Instruments</i> , 2016, 87, 045114.	1.3	2
58	Research on temperature measurement technology for graphite-cone-absorption-cavity absolute calorimeter. <i>Review of Scientific Instruments</i> , 2015, 86, 025001.	1.3	1
59	Theoretical analysis of mutual injection mechanism in spectral beam combining diode laser array. <i>Optical Engineering</i> , 2017, 56, 1.	1.0	1
60	Energy-Saving Analysis of Low-Rise Prefabricated Building Integrating with Metamaterial-Based Cool Roof in China. <i>Environmental Science and Engineering</i> , 2020, , 57-65.	0.2	1
61	Study on the cooling performance of a radiative cooling-based ventilated roof for its application in buildings. <i>Building Services Engineering Research and Technology</i> , 2022, 43, 685-702.	1.8	1
62	Effect of RuO ₂ on Piezoresistive Properties of CB/MVQ Composite Materials. <i>Key Engineering Materials</i> , 2014, 609-610, 124-129.	0.4	0
63	Numerical Study on Thermal Management of Data Center Integrated with Underfloor Vertical Baffles. <i>Environmental Science and Engineering</i> , 2020, , 77-85.	0.2	0