Xinpeng Zhao

List of Publications by Year
in descending order

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36 papers	4,851 citations	304602 22 h-index	345118 36 g-index
37 all docs	37 docs citations	37 times ranked	4382 citing authors

#	Article	IF	Citations
1	Highly efficient solar vapour generation via hierarchically nanostructured gels. Nature Nanotechnology, 2018, 13, 489-495.	15.6	1,356
2	A radiative cooling structural material. Science, 2019, 364, 760-763.	6.0	856
3	Scalable and Highly Efficient Mesoporous Woodâ€Based Solar Steam Generation Device: Localized Heat, Rapid Water Transport. Advanced Functional Materials, 2018, 28, 1707134.	7.8	366
4	Cellulose ionic conductors with high differential thermal voltage for low-grade heat harvesting. Nature Materials, 2019, 18, 608-613.	13.3	343
5	Anisotropic, lightweight, strong, and super thermally insulating nanowood with naturally aligned nanocellulose. Science Advances, 2018, 4, eaar3724.	4.7	336
6	Lightweight, Mesoporous, and Highly Absorptive All-Nanofiber Aerogel for Efficient Solar Steam Generation. ACS Applied Materials & Interfaces, 2018, 10, 1104-1112.	4.0	327
7	Highâ€Performance Solar Steam Device with Layered Channels: Artificial Tree with a Reversed Design. Advanced Energy Materials, 2018, 8, 1701616.	10.2	255
8	A Clear, Strong, and Thermally Insulated Transparent Wood for Energy Efficient Windows. Advanced Functional Materials, 2020, 30, 1907511.	7.8	124
9	Sustainable high-strength macrofibres extracted from natural bamboo. Nature Sustainability, 2022, 5, 235-244.	11.5	113
10	Melanin-Inspired Design: Preparing Sustainable Photothermal Materials from Lignin for Energy Generation. ACS Applied Materials & Interfaces, 2021, 13, 7600-7607.	4.0	87
11	Lignin: a sustainable photothermal block for smart elastomers. Green Chemistry, 2022, 24, 823-836.	4.6	64
12	Flexible transparent aerogels as window retrofitting films and optical elements with tunable birefringence. Nano Energy, 2018, 48, 266-274.	8.2	63
13	An Energyâ€Efficient, Woodâ€Derived Structural Material Enabled by Pore Structure Engineering towards Building Efficiency. Small Methods, 2020, 4, 1900747.	4.6	53
14	Thermal Conductivity Analysis of High Porosity Structures with Open and Closed Pores. International Journal of Heat and Mass Transfer, 2022, 183, 122089.	2.5	51
15	Thermal conductivity model for nanofiber networks. Journal of Applied Physics, 2018, 123, .	1.1	45
16	A theoretical and numerical study on the gas-contributed thermal conductivity in aerogel. International Journal of Heat and Mass Transfer, 2017, 108, 1982-1990.	2.5	44
17	A multi-level fractal model for the effective thermal conductivity of silica aerogel. Journal of Non-Crystalline Solids, 2015, 430, 43-51.	1.5	41
18	Durability-enhanced vanadium dioxide thermochromic film for smart windows. Materials Today Physics, 2020, 13, 100205.	2.9	38

#	Article	IF	Citations
19	Dynamically adaptive window design with thermo-responsive hydrogel for energy efficiency. Applied Energy, 2021, 287, 116573.	5.1	34
20	Optically-switchable thermally-insulating VO2-aerogel hybrid film for window retrofits. Applied Energy, 2020, 278, 115663.	5.1	30
21	Investigation of the effect of the gas permeation induced by pressure gradient on transient heat transfer in silica aerogel. International Journal of Heat and Mass Transfer, 2016, 95, 1026-1037.	2.5	29
22	Dynamic glazing with switchable solar reflectance for radiative cooling and solar heating. Cell Reports Physical Science, 2022, 3, 100853.	2.8	26
23	Reduced-scale hot box method for thermal characterization of window insulation materials. Applied Thermal Engineering, 2019, 160, 114026.	3.0	21
24	Rapid Pressureless Sintering of Glasses. Small, 2022, 18, e2107951.	5.2	20
25	Multi-scale numerical analysis of flow and heat transfer for a parabolic trough collector. International Journal of Heat and Mass Transfer, 2017, 106, 526-538.	2.5	17
26	Thermal conductivity model for nanoporous thin films. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 97, 277-281.	1.3	17
27	Developing Flexible Quinacridoneâ€Derivativesâ€Based Photothermal Evaporaters for Solar Steam and Thermoelectric Power Generation. Chemistry - A European Journal, 2022, 28, .	1.7	17
28	Study on Unit Cell Models and the Effective Thermal Conductivities of Silica Aerogel. Journal of Nanoscience and Nanotechnology, 2015, 15, 3218-3223.	0.9	15
29	Quantitative FÃ¶rster Resonance Energy Transfer: Efficient Light Harvesting for Sequential Photoâ€Thermoâ€Electric Conversion. Small, 2021, 17, e2103172.	5.2	13
30	Utilization of size-tunable hollow silica nanospheres for building thermal insulation applications. Journal of Building Engineering, 2020, 31, 101336.	1.6	8
31	The Calculation of Thermal Conductivities by Three Dimensional Direct Simulation Monte Carlo Method. Journal of Nanoscience and Nanotechnology, 2015, 15, 3299-3304.	0.9	5
32	Critical roles of pores and moisture in sustainable nanocellulose-based super-thermal insulators. Matter, 2021, 4, 769-772.	5.0	5
33	Influence of shell materials on the optical performance of VO2 coreâ€"shell nanoparticleâ€"based thermochromic films. Materials Today Nano, 2021, 13, 100102.	2.3	4
34	Thermal conductance of nanostructured interfaces from Monte Carlo simulations with <i>ab initio</i>-based phonon properties. Journal of Applied Physics, 2021, 129, .	1.1	4
35	Tunable anisotropic thermal transport in super-aligned carbon nanotube films. Materials Today Physics, 2021, 20, 100447.	2.9	4
36	The influences of microstructural parameters on the gaseous thermal conductivity in nanoporous material. , 2014, , .		0