Xiao Chen

List of Publications by Year
in descending order

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Version: 2024-02-01

51 papers	3,158 citations	218677 26 h-index	182427 51 g-index
51 all docs	51 docs citations	51 times ranked	1755 citing authors

#	Article	IF	Citations
1	Shape-stabilized phase change materials based on porous supports for thermal energy storage applications. Chemical Engineering Journal, 2019, 356, 641-661.	12.7	459
2	Nanoconfinement effects on thermal properties of nanoporous shape-stabilized composite PCMs: A review. Nano Energy, 2018, 53, 769-797.	16.0	260
3	Highly graphitized 3D network carbon for shape-stabilized composite PCMs with superior thermal energy harvesting. Nano Energy, 2018, 49, 86-94.	16.0	200
4	Optimization strategies of composite phase change materials for thermal energy storage, transfer, conversion and utilization. Energy and Environmental Science, 2020, 13, 4498-4535.	30.8	181
5	Different dimensional nanoadditives for thermal conductivity enhancement of phase change materials: Fundamentals and applications. Nano Energy, 2021, 85, 105948.	16.0	164
6	Carbonâ€Based Composite Phase Change Materials for Thermal Energy Storage, Transfer, and Conversion. Advanced Science, 2021, 8, 2001274.	11.2	162
7	Advanced multifunctional composite phase change materials based on photo-responsive materials. Nano Energy, 2021, 80, 105454.	16.0	129
8	Carbon nanotube bundles assembled flexible hierarchical framework based phase change material composites for thermal energy harvesting and thermotherapy. Energy Storage Materials, 2020, 26, 129-137.	18.0	124
9	Smart integration of carbon quantum dots in metal-organic frameworks for fluorescence-functionalized phase change materials. Energy Storage Materials, 2019, 18, 349-355.	18.0	105
10	Flexible monolithic phase change material based on carbon nanotubes/chitosan/poly(vinyl alcohol). Chemical Engineering Journal, 2020, 397, 125330.	12.7	92
11	Core-sheath structural carbon materials for integrated enhancement of thermal conductivity and capacity. Applied Energy, 2018, 217, 369-376.	10.1	91
12	Smart Utilization of Multifunctional Metal Oxides in Phase Change Materials. Matter, 2020, 3, 708-741.	10.0	87
13	Nanoconfinement effects of N-doped hierarchical carbon on thermal behaviors of organic phase change materials. Energy Storage Materials, 2019, 18, 280-288.	18.0	86
14	Hierarchical 3D Reduced Graphene Porous-Carbon-Based PCMs for Superior Thermal Energy Storage Performance. ACS Applied Materials & Interfaces, 2018, 10, 32093-32101.	8.0	85
15	Modulation of the charge transfer behavior of Ni(II)-doped NH2-MIL-125(Ti): Regulation of Ni ions content and enhanced photocatalytic CO2 reduction performance. Chemical Engineering Journal, 2021, 406, 126886.	12.7	83
16	In situ one-step construction of monolithic silica aerogel-based composite phase change materials for thermal protection. Composites Part B: Engineering, 2020, 195, 108072.	12.0	76
17	Three-dimensional rGO@sponge framework/paraffin wax composite shape-stabilized phase change materials for solar-thermal energy conversion and storage. Solar Energy Materials and Solar Cells, 2020, 215, 110600.	6.2	71
18	3D Hydrangea Macrophylla-like Nickelâ€“Vanadium Metalâ€“Organic Frameworks Formed by Self-Assembly of Ultrathin 2D Nanosheets for Overall Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 48495-48510.	8.0	57

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19	Phase Change Materials for Electro-Thermal Conversion and Storage: From Fundamental Understanding to Engineering Design. IScience, 2020, 23, 101208.	4.1	55
20	The marriage of two-dimensional materials and phase change materials for energy storage, conversion and applications. EnergyChem, 2022, 4, 100071.	19.1	42
21	Construction of dual ligand Ti-based MOFs with enhanced photocatalytic CO2 reduction performance. Journal of CO2 Utilization, 2021, 48, 101528.	6.8	39
22	Metal-Organic Framework-based Phase Change Materials for Thermal Energy Storage. Cell Reports Physical Science, 2020, 1, 100218.	5.6	33
23	3D Self-Supported Porous NiO@NiMoO₄ Coreâ€“Shell Nanosheets for Highly Efficient Oxygen Evolution Reaction. Inorganic Chemistry, 2019, 58, 6758-6764.	4.0	31
24	Effects of substrate bias voltage on mechanical properties and tribological behaviors of RF sputtered multilayer TiN/CrAlN films. Journal of Alloys and Compounds, 2016, 665, 210-217.	5.5	30
25	In-situ derived graphene from solid sodium acetate for enhanced photothermal conversion, thermal conductivity, and energy storage capacity of phase change materials. Solar Energy Materials and Solar Cells, 2020, 205, 110269.	6.2	28
26	Toward Tailoring Chemistry of Silica-Based Phase Change Materials for Thermal Energy Storage. IScience, 2020, 23, 101606.	4.1	28
27	Top-down synthetic strategies toward single atoms on the rise. Matter, 2022, 5, 788-807.	10.0	28
28	Engineering attractive interaction in ZIF-based phase change materials for boosting electro- and photo- driven thermal energy storage. Chemical Engineering Journal, 2022, 430, 133007.	12.7	27
29	Network Structural CNTs Penetrate Porous Carbon Support for Phaseâ€Change Materials with Enhanced Electroâ€Thermal Performance. Advanced Electronic Materials, 2020, 6, 1901428.	5.1	26
30	Metal-organic framework derived magnetic phase change nanocage for fast-charging solar-thermal energy conversion. Nano Energy, 2022, 99, 107383.	16.0	26
31	Decorating cobalt phosphide and rhodium on reduced graphene oxide for high-efficiency hydrogen evolution reaction. Journal of Energy Chemistry, 2019, 34, 72-79.	12.9	25
32	Targeted synthesis of covalently linked Ni-MOFs nanosheets/graphene for oxygen evolution reaction by computational screening of anchoring primers. Nano Energy, 2021, 79, 105418.	16.0	25
33	Thermal failure mechanism of multilayer brittle TiN/CrAlN films. Ceramics International, 2018, 44, 8138-8144.	4.8	21
34	Flexible engineering of advanced phase change materials. IScience, 2022, 25, 104226.	4.1	21
35	Atomically dispersed ruthenium sites on whisker-like secondary microstructure of porous carbon host toward highly efficient hydrogen evolution. Journal of Materials Chemistry A, 2020, 8, 3203-3210.	10.3	20
36	Self-assembly engineering toward large-area defect-rich TiO2(B) nanosheets-based free-standing films for high-performance lithium-ion batteries. Journal of Power Sources, 2020, 448, 227458.	7.8	18

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37	Encapsulation of lauric acid in reduced graphene-N-doped porous carbon supporting scaffold for multi-functional phase change composites. Renewable Energy, 2021, 170, 661-668.	8.9	18
38	Hierarchical nitrogen-doped porous carbon incorporating cobalt nanocrystal sites for nitrophenol reduction. Chemical Engineering Science, 2020, 217, 115525.	3.8	16
39	Inâ€situ Selfâ€transformation Synthesis of Nâ€doped Carbon Coating Paragenetic Anatase/Rutile Heterostructure with Enhanced Photocatalytic CO₂ Reduction Activity. ChemCatChem, 2020, 12, 3274-3284.	3.7	14
40	Magnetically accelerated thermal energy storage within Fe₃O₄â€anchored MXeneâ€based phase change materials. Aggregate, 2023, 4, .	9.9	11
41	Advanced pressure-upgraded dynamic phase change materials. Joule, 2022, 6, 953-955.	24.0	10
42	Photo- and magneto-responsive highly graphitized carbon based phase change composites for energy conversion and storage. Materials Today Nano, 2022, 19, 100234.	4.6	10
43	Advanced 3D-printed phase change materials. Matter, 2021, 4, 3374-3376.	10.0	9
44	Molecular insights into the interaction mechanism between C18 phase change materials and methyl-modified carbon nanotubes. Ceramics International, 2021, 47, 23564-23570.	4.8	8
45	Self-templating synthesis of hollow NiFe hydroxide nanospheres for efficient oxygen evolution reaction. Electrochimica Acta, 2020, 357, 136869.	5.2	7
46	Two-phase interface-facilitated synthesis of graphene-like carbon nanosheets and their interfacial assembly behaviors. Chemical Physics, 2019, 516, 132-138.	1.9	6
47	Understanding molecular motion mechanism of phase change materials in mesoporous MCM-41. Microporous and Mesoporous Materials, 2021, 312, 110741.	4.4	6
48	Thermal-induced blister cracking behavior of annealed sandwich-structured TiN/CrAlN films. Ceramics International, 2018, 44, 5874-5879.	4.8	4
49	Magnetically tightened multifunctional phase change materials. Matter, 2022, 5, 1639-1642.	10.0	2
50	One-pot self-assembly of sisal-like TiO2 on graphene-like carbon sheets via a novel two-phase interface-facilitated route. Journal of Alloys and Compounds, 2019, 776, 763-772.	5.5	1
51	Cobalt-embedded few-layered carbon nanosheets toward enhanced hydrogen evolution: Rational design and insight into structure-performance correlation. Journal of Energy Chemistry, 2021, 58, 156-161.	12.9	1