Hongyi Gao

List of Publications by Year
in descending order

89 papers	5,005 citations	94269 37 h-index	91712 69 g-index
89 all docs	89 docs citations	89 times ranked	4451 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.	6.6	459
2	Nanoconfinement effects on thermal properties of nanoporous shape-stabilized composite PCMs: A review. Nano Energy, 2018, 53, 769-797.	8.2	260
3	A general post-synthetic modification approach of amino-tagged metalâ€“organic frameworks to access efficient catalysts for the Knoevenagel condensation reaction. Journal of Materials Chemistry A, 2015, 3, 17320-17331.	5.2	211
4	Highly graphitized 3D network carbon for shape-stabilized composite PCMs with superior thermal energy harvesting. Nano Energy, 2018, 49, 86-94.	8.2	200
5	Optimization strategies of composite phase change materials for thermal energy storage, transfer, conversion and utilization. Energy and Environmental Science, 2020, 13, 4498-4535.	15.6	181
6	Surface functionalization engineering driven crystallization behavior of polyethylene glycol confined in mesoporous silica for shape-stabilized phase change materials. Nano Energy, 2016, 19, 78-87.	8.2	172
7	Different dimensional nanoadditives for thermal conductivity enhancement of phase change materials: Fundamentals and applications. Nano Energy, 2021, 85, 105948.	8.2	164
8	Carbonâ€Based Composite Phase Change Materials for Thermal Energy Storage, Transfer, and Conversion. Advanced Science, 2021, 8, 2001274.	5.6	162
9	Construction of CNT@Cr-MIL-101-NH2 hybrid composite for shape-stabilized phase change materials with enhanced thermal conductivity. Chemical Engineering Journal, 2018, 350, 164-172.	6.6	139
10	Introduction of organic-organic eutectic PCM in mesoporous N-doped carbons for enhanced thermal conductivity and energy storage capacity. Applied Energy, 2018, 211, 1203-1215.	5.1	137
11	Introduction of an organic acid phase changing material into metalâ€“organic frameworks and the study of its thermal properties. Journal of Materials Chemistry A, 2016, 4, 7641-7649.	5.2	132
12	Synthesis of an amino-functionalized metalâ€“organic framework at a nanoscale level for gold nanoparticle deposition and catalysis. Journal of Materials Chemistry A, 2014, 2, 20588-20596.	5.2	130
13	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.	9.5	124
14	Smart integration of carbon quantum dots in metal-organic frameworks for fluorescence-functionalized phase change materials. Energy Storage Materials, 2019, 18, 349-355.	9.5	105
15	Controlled synthesis of hierarchical Cu nanosheets @ CuO nanorods as high-performance anode material for lithium-ion batteries. Nano Energy, 2017, 33, 427-435.	8.2	101
16	Flexible monolithic phase change material based on carbon nanotubes/chitosan/poly(vinyl alcohol). Chemical Engineering Journal, 2020, 397, 125330.	6.6	92
17	Core-sheath structural carbon materials for integrated enhancement of thermal conductivity and capacity. Applied Energy, 2018, 217, 369-376.	5.1	91
18	Hierarchically nanostructured MnCo₂O₄ as active catalysts for the synthesis of N-benzylideneaniline from benzyl alcohol and aniline. Green Chemistry, 2017, 19, 769-777.	4.6	89

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19	Smart Utilization of Multifunctional Metal Oxides in Phase Change Materials. Matter, 2020, 3, 708-741.	5.0	87
20	Nanoconfinement effects of N-doped hierarchical carbon on thermal behaviors of organic phase change materials. Energy Storage Materials, 2019, 18, 280-288.	9.5	86
21	Hierarchical 3D Reduced Graphene Porous-Carbon-Based PCMs for Superior Thermal Energy Storage Performance. ACS Applied Materials & Interfaces, 2018, 10, 32093-32101.	4.0	85
22	In Situ-Induced Synthesis of Magnetic Cu-CuFe₂O₄@HKUST-1 Heterostructures with Enhanced Catalytic Performance for Selective Aerobic Benzylic Câ€“H Oxidation. ACS Catalysis, 2017, 7, 243-249.	5.5	76
23	In situ one-step construction of monolithic silica aerogel-based composite phase change materials for thermal protection. Composites Part B: Engineering, 2020, 195, 108072.	5.9	76
24	Synthesis of a flower-like Zr-based metalâ€“organic framework and study of its catalytic performance in the Mannich reaction. RSC Advances, 2015, 5, 19273-19278.	1.7	61
25	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.	4.0	57
26	Construction of TiO2 nanosheets/tetra (4-carboxyphenyl) porphyrin hybrids for efficient visible-light photoreduction of CO2. Chemical Engineering Journal, 2019, 374, 684-693.	6.6	56
27	Phase Change Materials for Electro-Thermal Conversion and Storage: From Fundamental Understanding to Engineering Design. IScience, 2020, 23, 101208.	1.9	55
28	Construction of covalently integrated core-shell TiO2 nanobelts@COF hybrids for highly selective oxidation of alcohols under visible light. Applied Surface Science, 2019, 493, 551-560.	3.1	53
29	Oneâ€Pot Preparation of Hierarchical Nanosheetâ€Constructed Fe₃O₄/MILâ€88B(Fe) Magnetic Microspheres with High Efficiency Photocatalytic Degradation of Dye. ChemCatChem, 2016, 8, 3510-3517.	1.8	52
30	A facile one-step synthesis of porous N-doped carbon from MOF for efficient thermal energy storage capacity of shape-stabilized phase change materials. Materials Today Energy, 2019, 12, 239-249.	2.5	51
31	Synthesis and Characterization of Paraffin/Metal Organic Gel Derived Porous Carbon/Boron Nitride Composite Phase Change Materials for Thermal Energy Storage. European Journal of Inorganic Chemistry, 2018, 2018, 5167-5175.	1.0	47
32	A Facile in Situ Self-Assembly Strategy for Large-Scale Fabrication of CHS@MOF Yolk/Shell Structure and Its Catalytic Application in a Flow System. ACS Applied Materials & Interfaces, 2015, 7, 4667-4674.	4.0	46
33	Synthesis of a Fe₃O₄â€“CuO@meso-SiO₂ nanostructure as a magnetically recyclable and efficient catalyst for styrene epoxidation. Catalysis Science and Technology, 2014, 4, 3082-3089.	2.1	41
34	Highly efficient sulfonated-polystyreneâ€“Cu(II)@Cu₃(BTC)₂ coreâ€“shell microsphere catalysts for base-free aerobic oxidation of alcohols. Journal of Materials Chemistry A, 2015, 3, 4266-4273.	5.2	41
35	Superparamagnetic Coreâ€“Shell Metalâ€“Organic Framework Fe₃O₄/Cu₃(btc)₂ Microspheres and Their Catalytic Activity in the Aerobic Oxidation of Alcohols and Olefins. European Journal of Inorganic Chemistry, 2016, 2016, 4906-4912.	1.0	40
36	Vacuum-Dried Synthesis of Low-Density Hydrophobic Monolithic Bridged Silsesquioxane Aerogels for Oil/Water Separation: Effects of Acid Catalyst and Its Excellent Flexibility. ACS Applied Nano Materials, 2018, 1, 933-939.	2.4	39

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37	Construction of dual ligand Ti-based MOFs with enhanced photocatalytic CO2 reduction performance. Journal of CO2 Utilization, 2021, 48, 101528.	3.3	39
38	Novel tunable hierarchical Niâ€“Co hydroxide and oxide assembled from two-wheeled units. Nanotechnology, 2012, 23, 015607.	1.3	38
39	Shapeâ€Stabilized Phase Change Materials Based on Stearic Acid and Mesoporous Hollow SiO₂ Microspheres (SA/SiO₂) for Thermal Energy Storage. European Journal of Inorganic Chemistry, 2017, 2017, 2138-2143.	1.0	37
40	SO₃H-functionalized metal organic frameworks: an efficient heterogeneous catalyst for the synthesis of quinoxaline and derivatives. RSC Advances, 2016, 6, 35135-35143.	1.7	35
41	Cobalt-tuned nickel phosphide nanoparticles for highly efficient electrocatalysis. Applied Surface Science, 2019, 479, 1254-1261.	3.1	34
42	Metal-Organic Framework-based Phase Change Materials for Thermal Energy Storage. Cell Reports Physical Science, 2020, 1, 100218.	2.8	33
43	3D Self-Supported Porous NiO@NiMoO₄ Coreâ€“Shell Nanosheets for Highly Efficient Oxygen Evolution Reaction. Inorganic Chemistry, 2019, 58, 6758-6764.	1.9	31
44	Controlled Synthesis of 3D Flowerâ€like Ni₂P Composed of Mesoporous Nanoplates for Overall Water Splitting. Chemistry - an Asian Journal, 2017, 12, 2956-2961.	1.7	30
45	Hierarchical Î±-Ni(OH)₂ Composed of Ultrathin Nanosheets with Controlled Interlayer Distances and Their Enhanced Catalytic Performance. ACS Applied Materials & Interfaces, 2017, 9, 20476-20483.	4.0	29
46	One-pot synthesis of light-driven polymeric composite phase change materials based on N-doped porous carbon for enhanced latent heat storage capacity and thermal conductivity. Solar Energy Materials and Solar Cells, 2018, 179, 392-400.	3.0	29
47	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.	3.0	28
48	Toward Tailoring Chemistry of Silica-Based Phase Change Materials for Thermal Energy Storage. IScience, 2020, 23, 101606.	1.9	28
49	Top-down synthetic strategies toward single atoms on the rise. Matter, 2022, 5, 788-807.	5.0	28
50	Engineering attractive interaction in ZIF-based phase change materials for boosting electro- and photo- driven thermal energy storage. Chemical Engineering Journal, 2022, 430, 133007.	6.6	27
51	Network Structural CNTs Penetrate Porous Carbon Support for Phaseâ€Change Materials with Enhanced Electroâ€Thermal Performance. Advanced Electronic Materials, 2020, 6, 1901428.	2.6	26
52	Imparting magnetic functionality to iron-based MIL-101 via facile Fe₃O₄ nanoparticle encapsulation: an efficient and recoverable catalyst for aerobic oxidation. RSC Advances, 2015, 5, 78962-78970.	1.7	25
53	Oneâ€Pot Fabrication of Hierarchical Nanosheetâ€Based TiO₂â€“Carbon Hollow Microspheres for Anode Materials of Highâ€Rate Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2016, 22, 6031-6036.	1.7	25
54	Decorating cobalt phosphide and rhodium on reduced graphene oxide for high-efficiency hydrogen evolution reaction. Journal of Energy Chemistry, 2019, 34, 72-79.	7.1	25

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55	In situ semi-sacrificial template-assisted growth of ultrathin metalâ€“organic framework nanosheets for electrocatalytic oxygen evolution. Chemical Engineering Journal, 2021, 426, 131348.	6.6	25
56	Cu@Cu₃P Coreâ€“Shell Nanowires Attached to Nickel Foam as Highâ€Performance Electrocatalysts for the Hydrogen Evolution Reaction. Chemistry - A European Journal, 2019, 25, 1083-1089.	1.7	24
57	Imine-linked micron-network polymers with high polyethylene glycol uptake for shaped-stabilized phase change materials. RSC Advances, 2016, 6, 44807-44813.	1.7	23
58	A one-step in-situ assembly strategy to construct PEG@MOG-100-Fe shape-stabilized composite phase change material with enhanced storage capacity for thermal energy storage. Chemical Physics Letters, 2018, 695, 99-106.	1.2	23
59	Fine-Tuning the Metal Oxo Cluster Composition and Phase Structure of Ni/Ti Bimetallic MOFs for Efficient CO₂ Reduction. Journal of Physical Chemistry C, 2021, 125, 9200-9209.	1.5	23
60	Porous organicâ€“inorganic hybrid xerogels for stearic acid shape-stabilized phase change materials. New Journal of Chemistry, 2017, 41, 1790-1797.	1.4	22
61	Difference between Metal-S and Metal-O Bond Orders: A Descriptor of Oxygen Evolution Activity for Isolated Metal Atom-Doped MoS2 Nanosheets. IScience, 2019, 20, 481-488.	1.9	21
62	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.	5.2	20
63	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.	4.3	18
64	Oriented immobilization of Au nanoparticles on C@P4VP coreâ€“shell microspheres and their catalytic performance. New Journal of Chemistry, 2015, 39, 2949-2955.	1.4	17
65	Preparation and catalytic performance of mesoporous ceria-base composites CuO/CeO2, Fe2O3/CeO2 and La2O3/CeO2. Journal of Porous Materials, 2017, 24, 795-803.	1.3	17
66	Monodispersed poly(4-vinylpyridine) spheres supported Fe(III) material: An efficient and reusable catalyst for benzylic oxidation. Journal of Molecular Catalysis A, 2015, 404-405, 186-192.	4.8	16
67	NiO promoted CuOâ€“NiO/SBA-15 composites as highly active catalysts for epoxidation of olefins. New Journal of Chemistry, 2016, 40, 8543-8548.	1.4	16
68	Hierarchical nitrogen-doped porous carbon incorporating cobalt nanocrystal sites for nitrophenol reduction. Chemical Engineering Science, 2020, 217, 115525.	1.9	16
69	Facile synthesis of Cu₃(BTC)₂/cellulose acetate mixed matrix membranes and their catalytic applications in continuous flow process. New Journal of Chemistry, 2017, 41, 9123-9129.	1.4	15
70	A fast synthesis of hierarchical yolkâ€“shell copper hydroxysulfates at room temperature with adjustable sizes. CrystEngComm, 2014, 16, 2520.	1.3	14
71	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.	1.8	14
72	Metalloporphyrin-Decorated Titanium Dioxide Nanosheets for Efficient Photocatalytic Carbon Dioxide Reduction. Inorganic Chemistry, 2021, 60, 18337-18346.	1.9	14

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73	The development of a novel HAuCl4@MOF catalyst and its catalytic application in the formation of dihydrochalcones. RSC Advances, 2014, 4, 34199.	1.7	12
74	A facile approach for fabrication of TiO2 hierarchical nanostructures and their photocatalytic properties. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 508, 184-191.	2.3	11
75	Facial fabrication of hierarchical 3D Sisal-like CuO/ZnO nanocomposite and its catalytic properties. Chemical Physics Letters, 2018, 708, 77-80.	1.2	11
76	Vacuum-dried flexible hydrophobic aerogels using bridged methylsiloxane as reinforcement: performance regulation with alkylorthosilicate or alkyltrimethoxysilane co-precursors. New Journal of Chemistry, 2019, 43, 2204-2212.	1.4	11
77	Effect of partial substitution of Ca in LaMnO3 on coal catalytic combustion. Journal of Thermal Analysis and Calorimetry, 2013, 112, 719-726.	2.0	10
78	Directly ambient pressure dried robust bridged silsesquioxane and methylsiloxane aerogels: effects of precursors and solvents. RSC Advances, 2019, 9, 8664-8671.	1.7	10
79	Study on the structure and reactivity of COREX coal. Journal of Thermal Analysis and Calorimetry, 2013, 113, 693-701.	2.0	9
80	Temperatureâ€; pHâ€; and ionâ€stimulusâ€responsive swelling behaviors of poly(dimethylaminoethyl) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.3	8
81	One-step fabrication of 3D hierarchical Ni-incorporated Î2-Co(OH)2 assembled by 2D center disk and 1D length-tunable brush. RSC Advances, 2013, 3, 2604.	1.7	7
82	Self-templating synthesis of hollow NiFe hydroxide nanospheres for efficient oxygen evolution reaction. Electrochimica Acta, 2020, 357, 136869.	2.6	7
83	Two-phase interface-facilitated synthesis of graphene-like carbon nanosheets and their interfacial assembly behaviors. Chemical Physics, 2019, 516, 132-138.	0.9	6
84	Base-free catalytic aerobic oxidation of mercaptans over MOF-derived Co/CN catalyst with controllable composition and structure. Journal of Colloid and Interface Science, 2022, 607, 1836-1848.	5.0	6
85	NMOF self-templating synthesis of hollow porous metal oxides for enhanced lithium-ion battery anodes. New Journal of Chemistry, 2018, 42, 17902-17908.	1.4	5
86	HKUST-1 derived Cu@CuO_x/carbon catalyst for base-free aerobic oxidative coupling of benzophenone imine: high catalytic efficiency and excellent regeneration performance. RSC Advances, 2020, 10, 36111-36118.	1.7	5
87	Efficient photocatalysts of a tetraphenylporphyrin/P25 hybrid for visible-light photoreduction of CO₂. New Journal of Chemistry, 2020, 44, 17229-17235.	1.4	2
88	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.	2.8	1
89	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.	7.1	1