

Zhenkun Sun

List of Publications by Year in descending order

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59
papers

7,466
citations

76196

40
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123241

61
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62
all docs

62
docs citations

62
times ranked

10250
citing authors

#	ARTICLE	IF	CITATIONS
1	Multifunctional Mesoporous Composite Microspheres with Well-Designed Nanostructure: A Highly Integrated Catalyst System. <i>Journal of the American Chemical Society</i> , 2010, 132, 8466-8473.	6.6	887
2	A Controllable Synthesis of Rich Nitrogen-Doped Ordered Mesoporous Carbon for CO ₂ Capture and Supercapacitors. <i>Advanced Functional Materials</i> , 2013, 23, 2322-2328.	7.8	861
3	Highly Water-Dispersible Biocompatible Magnetite Particles with Low Cytotoxicity Stabilized by Citrate Groups. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 5875-5879.	7.2	856
4	Large-pore ordered mesoporous materials templated from non-Pluronic amphiphilic block copolymers. <i>Chemical Society Reviews</i> , 2013, 42, 4054-4070.	18.7	403
5	Sol-Gel Design Strategy for Ultradispersed TiO ₂ Nanoparticles on Graphene for High-Performance Lithium Ion Batteries. <i>Journal of the American Chemical Society</i> , 2013, 135, 18300-18303.	6.6	348
6	New Insight into the Synthesis of Large-Pore Ordered Mesoporous Materials. <i>Journal of the American Chemical Society</i> , 2017, 139, 1706-1713.	6.6	274
7	Free-Standing Mesoporous Carbon Thin Films with Highly Ordered Pore Architectures for Nanodevices. <i>Journal of the American Chemical Society</i> , 2011, 133, 15148-15156.	6.6	255
8	A General Chelate-Assisted Co-Assembly to Metallic Nanoparticles-Incorporated Ordered Mesoporous Carbon Catalysts for Fischer-Tropsch Synthesis. <i>Journal of the American Chemical Society</i> , 2012, 134, 17653-17660.	6.6	227
9	Hierarchically Ordered Macro-/Mesoporous Silica Monolith: Tuning Macropore Entrance Size for Size-Selective Adsorption of Proteins. <i>Chemistry of Materials</i> , 2011, 23, 2176-2184.	3.2	200
10	Solvent Evaporation Induced Aggregating Assembly Approach to Three-Dimensional Ordered Mesoporous Silica with Ultralarge Accessible Mesopores. <i>Journal of the American Chemical Society</i> , 2011, 133, 20369-20377.	6.6	158
11	Radially oriented mesoporous TiO ₂ microspheres with single-crystal-like anatase walls for high-efficiency optoelectronic devices. <i>Science Advances</i> , 2015, 1, e1500166.	4.7	139
12	Magnetic yolk-shell mesoporous silica microspheres with supported Au nanoparticles as recyclable high-performance nanocatalysts. <i>Journal of Materials Chemistry A</i> , 2015, 3, 4586-4594.	5.2	129
13	Controlled Synthesis and Functionalization of Ordered Large-Pore Mesoporous Carbons. <i>Advanced Functional Materials</i> , 2010, 20, 3658-3665.	7.8	127
14	Review on the Development of Sorbents for Calcium Looping. <i>Energy & Fuels</i> , 2020, 34, 7806-7836.	2.5	117
15	Ultra-Large-Pore Mesoporous Carbons Templated from Poly(ethylene oxide)- <i>b</i> -Polystyrene Diblock Copolymer by Adding Polystyrene Homopolymer as a Pore Expander. <i>Chemistry of Materials</i> , 2008, 20, 7281-7286.	3.2	115
16	Designed Fabrication and Characterization of Three-Dimensionally Ordered Arrays of Core-Shell Magnetic Mesoporous Carbon Microspheres. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 5312-5319.	4.0	115
17	A versatile ethanol-mediated polymerization of dopamine for efficient surface modification and the construction of functional core-shell nanostructures. <i>Journal of Materials Chemistry B</i> , 2013, 1, 6085.	2.9	110
18	Ultradispersed Palladium Nanoparticles in Three-Dimensional Dendritic Mesoporous Silica Nanospheres: Toward Active and Stable Heterogeneous Catalysts. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 17450-17459.	4.0	110

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19	Design of Amphiphilic ABC Triblock Copolymer for Templating Synthesis of Large-Pore Ordered Mesoporous Carbons with Tunable Pore Wall Thickness. <i>Chemistry of Materials</i> , 2009, 21, 3996-4005.	3.2	102
20	Synthesis of Dual-Mesoporous Silica Using Non-Ionic Diblock Copolymer and Cationic Surfactant as Co-Templates. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6149-6153.	7.2	101
21	Hierarchically tetramodal-porous zeolite ZSM-5 monoliths with template-free-derived intracrystalline mesopores. <i>Chemical Science</i> , 2014, 5, 1565.	3.7	98
22	An Interface-Directed Coassembly Approach To Synthesize Uniform Large-Pore Mesoporous Silica Spheres. <i>Journal of the American Chemical Society</i> , 2014, 136, 1884-1892.	6.6	97
23	Ordered Mesoporous Alumina with Ultra-Large Pores as an Efficient Absorbent for Selective Bioenrichment. <i>Chemistry of Materials</i> , 2017, 29, 2211-2217.	3.2	89
24	Hierarchical Cu ₂ S Microsponges Constructed from Nanosheets for Efficient Photocatalysis. <i>Small</i> , 2013, 9, 2702-2708.	5.2	85
25	Magnetically responsive ordered mesoporous materials: A burgeoning family of functional composite nanomaterials. <i>Chemical Physics Letters</i> , 2011, 510, 1-13.	1.2	84
26	In-Situ Crystallization Route to Nanorod-Aggregated Functional ZSM-5 Microspheres. <i>Journal of the American Chemical Society</i> , 2013, 135, 1181-1184.	6.6	84
27	General Synthesis of Discrete Mesoporous Carbon Microspheres through a Confined Self-Assembly Process in Inverse Opals. <i>ACS Nano</i> , 2013, 7, 8706-8714.	7.3	79
28	Mesoporous TiO ₂ Mesocrystals: Remarkable Defects-Induced Crystallite-Interface Reactivity and Their in Situ Conversion to Single Crystals. <i>ACS Central Science</i> , 2015, 1, 400-408.	5.3	74
29	Ordered Macro/Mesoporous TiO ₂ Hollow Microspheres with Highly Crystalline Thin Shells for High-Efficiency Photoconversion. <i>Small</i> , 2016, 12, 860-867.	5.2	71
30	A versatile designed synthesis of magnetically separable nano-catalysts with well-defined core-shell nanostructures. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6071-6074.	5.2	63
31	Interfacial engineering of magnetic particles with porous shells: Towards magnetic core-shell microparticles. <i>Nano Today</i> , 2016, 11, 464-482.	6.2	61
32	Microemulsion-derived, nanostructured CaO/CuO composites with controllable particle grain size to enhance cyclic CO ₂ capture performance for combined Ca/Cu looping process. <i>Chemical Engineering Journal</i> , 2020, 393, 124716.	6.6	60
33	Template-free synthesis of uniform magnetic mesoporous TiO ₂ nanospindles for highly selective enrichment of phosphopeptides. <i>Materials Horizons</i> , 2014, 1, 439.	6.4	53
34	Enhanced performance of ilmenite modified by CeO ₂ , ZrO ₂ , NiO, and Mn ₂ O ₃ as oxygen carriers in chemical looping combustion. <i>Applied Energy</i> , 2017, 195, 303-315.	5.1	53
35	A Facile fabrication of mesoporous core-shell CaO-Based pellets with enhanced reactive stability and resistance to attrition in cyclic CO ₂ capture. <i>Journal of Materials Chemistry A</i> , 2014, 2, 16577-16588.	5.2	51
36	Development of Sinter-Resistant Core-Shell LaMn _{1-x} Fe _{1-x} O ₃ @mSiO ₂ Oxygen Carriers for Chemical Looping Combustion. <i>Energy & Fuels</i> , 2012, 26, 3091-3102.	2.5	47

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37	Novel synthetic sol-gel CaO based pellets using porous mesostructured silica in cyclic CO ₂ capture process. <i>Fuel</i> , 2014, 127, 101-108.	3.4	44
38	Chemical looping reforming of CH ₄ in the presence of CO ₂ using ilmenite ore and NiO-modified ilmenite ore oxygen carriers. <i>Chemical Engineering Journal</i> , 2020, 401, 123481.	6.6	42
39	Large-pore ordered mesoporous carbons with tunable structures and pore sizes templated from poly(ethylene oxide)-b-poly(methyl methacrylate). <i>Solid State Sciences</i> , 2011, 13, 784-792.	1.5	41
40	Rational synthesis of superparamagnetic core-shell structured mesoporous microspheres with large pore sizes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18322-18328.	5.2	37
41	Magnetic 3-D ordered macroporous silica templated from binary colloidal crystals and its application for effective removal of microcystin. <i>Microporous and Mesoporous Materials</i> , 2010, 130, 26-31.	2.2	36
42	Selectivity Enhancement in Dynamic Kinetic Resolution of Secondary Alcohols through Adjusting the Micro-Environment of Metal Complex Confined in Nanochannels: A Promising Strategy for Tandem Reactions. <i>ACS Catalysis</i> , 2015, 5, 27-33.	5.5	36
43	A systematic investigation of the formation of ordered mesoporous silicas using poly(ethylene) Tj ETQq1 1 0.784314.rgBT /Oylock 10	5.2	31
44	Catalysts of Ordered Mesoporous Alumina with a Large Pore Size for Low-Temperature Hydrolysis of Carbonyl Sulfide. <i>Energy & Fuels</i> , 2021, 35, 8895-8908.	2.5	30
45	A simple approach to the synthesis of hollow microspheres with magnetite/silica hybrid walls. <i>Journal of Colloid and Interface Science</i> , 2009, 333, 329-334.	5.0	28
46	Ilmenite oxidation kinetics for pressurized chemical looping combustion of natural gas. <i>Applied Energy</i> , 2019, 238, 747-759.	5.1	24
47	Core-shell structured CaO-based pellets protected by mesoporous ceramics shells for high-temperature CO ₂ capture. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 2038-2044.	0.9	23
48	Chemical looping co-conversion of CH ₄ and CO ₂ using Fe ₂ O ₃ /Al ₂ O ₃ pellets as both oxygen carrier and catalyst in a fluidized bed reactor. <i>Chemical Engineering Journal</i> , 2022, 428, 132133.	6.6	22
49	Flame spray pyrolysis synthesized CuO-CeO ₂ composite for catalytic combustion of C ₃ H ₆ . <i>Proceedings of the Combustion Institute</i> , 2021, 38, 6513-6520.	2.4	18
50	O ₂ uncoupling behaviour of ilmenite and manganese-modified ilmenite as oxygen carriers. <i>Fuel Processing Technology</i> , 2018, 169, 15-23.	3.7	17
51	Ilmenite ore as an oxygen carrier for pressurized chemical looping reforming: Characterization and process simulation. <i>International Journal of Greenhouse Gas Control</i> , 2019, 81, 240-258.	2.3	16
52	Effects of H ₂ S on the Reactivity of Ilmenite Ore as Chemical Looping Combustion Oxygen Carrier with Methane as Fuel. <i>Energy & Fuels</i> , 2019, 33, 585-594.	2.5	16
53	CoFe ₂ O ₄ Nanocrystals Mediated Crystallization Strategy for Magnetic Functioned ZSM-5 Catalysts. <i>Advanced Functional Materials</i> , 2018, 28, 1802088.	7.8	15
54	Pressurized oxy-fuel combustion of a char particle in the fluidized bed combustor. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 5485-5492.	2.4	14

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55	Core/Shell Nanostructured Materials for Sustainable Processes. International Journal of Chemical Reactor Engineering, 2016, 14, 667-684.	0.6	7
56	Accelerated syngas generation from chemical looping CH ₄ reforming by using reduced ilmenite ore as catalyst. Fuel Processing Technology, 2022, 232, 107270.	3.7	4
57	Oxygen uncoupling behaviour for ilmenite ore oxygen carrier generated from a calcination treatment mixed with natural manganese ore. Canadian Journal of Chemical Engineering, 2023, 101, 805-818.	0.9	3
58	Effect of Sulfur on the Reduction of Ilmenite by Syngas in Chemical Looping Combustion. ACS Omega, 2020, 5, 9674-9683.	1.6	2
59	Fabrication of Polymeric Nano-Batteries Array Using Anodic Aluminum Oxide Templates. Journal of Nanoscience and Nanotechnology, 2009, 9, 929-932.	0.9	0