

# Zhenkun Sun

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

60  
papers

6,363  
citations

37  
h-index

62  
g-index

62  
ext. papers

6,976  
ext. citations

11  
avg, IF

5.64  
L-index

#	Paper	IF	Citations
60	Chemical looping co-conversion of CH <sub>4</sub> and CO <sub>2</sub> using Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> pellets as both oxygen carrier and catalyst in a fluidized bed reactor. <i>Chemical Engineering Journal</i> , <b>2022</b> , 428, 132133	14.7	2
59	Accelerated syngas generation from chemical looping CH <sub>4</sub> reforming by using reduced ilmenite ore as catalyst. <i>Fuel Processing Technology</i> , <b>2022</b> , 232, 107270	7.2	0
58	Catalysts of Ordered Mesoporous Alumina with a Large Pore Size for Low-Temperature Hydrolysis of Carbonyl Sulfide. <i>Energy &amp; Fuels</i> , <b>2021</b> , 35, 8895-8908	4.1	4
57	Pressurized oxy-fuel combustion of a char particle in the fluidized bed combustor. <i>Proceedings of the Combustion Institute</i> , <b>2021</b> , 38, 5485-5492	5.9	6
56	Flame spray pyrolysis synthesized CuO/Fe <sub>2</sub> O <sub>3</sub> composite for catalytic combustion of C <sub>3</sub> H <sub>6</sub> . <i>Proceedings of the Combustion Institute</i> , <b>2021</b> , 38, 6513-6520	5.9	8
55	Review on the Development of Sorbents for Calcium Looping. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 7806-7836	4.1	46
54	Effect of Sulfur on the Reduction of Ilmenite by Syngas in Chemical Looping Combustion. <i>ACS Omega</i> , <b>2020</b> , 5, 9674-9683	3.9	2
53	Chemical looping reforming of CH <sub>4</sub> in the presence of CO <sub>2</sub> using ilmenite ore and NiO-modified ilmenite ore oxygen carriers. <i>Chemical Engineering Journal</i> , <b>2020</b> , 401, 123481	14.7	12
52	Microemulsion-derived, nanostructured CaO/CuO composites with controllable particle grain size to enhance cyclic CO <sub>2</sub> capture performance for combined Ca/Cu looping process. <i>Chemical Engineering Journal</i> , <b>2020</b> , 393, 124716	14.7	29
51	Ilmenite ore as an oxygen carrier for pressurized chemical looping reforming: Characterization and process simulation. <i>International Journal of Greenhouse Gas Control</i> , <b>2019</b> , 81, 240-258	4.2	9
50	Ilmenite oxidation kinetics for pressurized chemical looping combustion of natural gas. <i>Applied Energy</i> , <b>2019</b> , 238, 747-759	10.7	14
49	Effects of H <sub>2</sub> S on the Reactivity of Ilmenite Ore as Chemical Looping Combustion Oxygen Carrier with Methane as Fuel. <i>Energy &amp; Fuels</i> , <b>2019</b> , 33, 585-594	4.1	11
48	O <sub>2</sub> uncoupling behaviour of ilmenite and manganese-modified ilmenite as oxygen carriers. <i>Fuel Processing Technology</i> , <b>2018</b> , 169, 15-23	7.2	9
47	CoFe <sub>2</sub> O <sub>4</sub> Nanocrystals Mediated Crystallization Strategy for Magnetic Functioned ZSM-5 Catalysts. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1802088	15.6	10
46	New Insight into the Synthesis of Large-Pore Ordered Mesoporous Materials. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 1706-1713	16.4	216
45	Ordered Mesoporous Alumina with Ultra-Large Pores as an Efficient Absorbent for Selective Bioenrichment. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 2211-2217	9.6	72
44	Enhanced performance of ilmenite modified by CeO <sub>2</sub> , ZrO <sub>2</sub> , NiO, and Mn <sub>2</sub> O <sub>3</sub> as oxygen carriers in chemical looping combustion. <i>Applied Energy</i> , <b>2017</b> , 195, 303-315	10.7	39

43	Ordered Macro/Mesoporous TiO <sub>2</sub> Hollow Microspheres with Highly Crystalline Thin Shells for High-Efficiency Photoconversion. <i>Small</i> , <b>2016</b> , 12, 860-7	11	56
42	Core/Shell Nanostructured Materials for Sustainable Processes. <i>International Journal of Chemical Reactor Engineering</i> , <b>2016</b> , 14, 667-684	1.2	6
41	Core-shell structured CaO-based pellets protected by mesoporous ceramics shells for high-temperature CO <sub>2</sub> capture. <i>Canadian Journal of Chemical Engineering</i> , <b>2016</b> , 94, 2038-2044	2.3	15
40	Interfacial engineering of magnetic particles with porous shells: Towards magnetic core-shell microparticles. <i>Nano Today</i> , <b>2016</b> , 11, 464-482	17.9	53
39	Magnetic yolk-shell mesoporous silica microspheres with supported Au nanoparticles as recyclable high-performance nanocatalysts. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 4586-4594	13	118
38	Ultradispersed Palladium Nanoparticles in Three-Dimensional Dendritic Mesoporous Silica Nanospheres: Toward Active and Stable Heterogeneous Catalysts. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 17450-9	9.5	92
37	Mesoporous TiO <sub>2</sub> Mesocrystals: Remarkable Defects-Induced Crystallite-Interface Reactivity and Their in Situ Conversion to Single Crystals. <i>ACS Central Science</i> , <b>2015</b> , 1, 400-8	16.8	63
36	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> , <b>2015</b> , 5, 27-33	13.1	28
35	Radially oriented mesoporous TiO <sub>2</sub> microspheres with single-crystal-like anatase walls for high-efficiency optoelectronic devices. <i>Science Advances</i> , <b>2015</b> , 1, e1500166	14.3	106
34	Designed fabrication and characterization of three-dimensionally ordered arrays of core-shell magnetic mesoporous carbon microspheres. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 5312-9	9.5	94
33	A versatile designed synthesis of magnetically separable nano-catalysts with well-defined core-shell nanostructures. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 6071-6074	13	57
32	Template-free synthesis of uniform magnetic mesoporous TiO <sub>2</sub> nanospindles for highly selective enrichment of phosphopeptides. <i>Materials Horizons</i> , <b>2014</b> , 1, 439	14.4	47
31	A Facile fabrication of mesoporous core-shell CaO-Based pellets with enhanced reactive stability and resistance to attrition in cyclic CO <sub>2</sub> capture. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 16577-16588	13	40
30	Rational synthesis of superparamagnetic core-shell structured mesoporous microspheres with large pore sizes. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 18322-18328	13	36
29	An interface-directed coassembly approach to synthesize uniform large-pore mesoporous silica spheres. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 1884-92	16.4	79
28	Hierarchically tetramodal-porous zeolite ZSM-5 monoliths with template-free-derived intracrystalline mesopores. <i>Chemical Science</i> , <b>2014</b> , 5, 1565	9.4	83
27	Novel synthetic sol-gel CaO based pellets using porous mesostructured silica in cyclic CO <sub>2</sub> capture process. <i>Fuel</i> , <b>2014</b> , 127, 101-108	7.1	37
26	Sol-gel design strategy for ultradispersed TiO <sub>2</sub> nanoparticles on graphene for high-performance lithium ion batteries. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 18300-3	16.4	313

25	General synthesis of discrete mesoporous carbon microspheres through a confined self-assembly process in inverse opals. <i>ACS Nano</i> , <b>2013</b> , 7, 8706-14	16.7	68
24	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> , <b>2013</b> , 1, 6085-6093	7.3	91
23	Large-pore ordered mesoporous materials templated from non-Pluronic amphiphilic block copolymers. <i>Chemical Society Reviews</i> , <b>2013</b> , 42, 4054-70	58.5	341
22	In-situ crystallization route to nanorod-aggregated functional ZSM-5 microspheres. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 1181-4	16.4	78
21	Hierarchical Cu <sub>2</sub> S microsponges constructed from nanosheets for efficient photocatalysis. <i>Small</i> , <b>2013</b> , 9, 2702-8	11	72
20	A Controllable Synthesis of Rich Nitrogen-Doped Ordered Mesoporous Carbon for CO <sub>2</sub> Capture and Supercapacitors. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 2322-2328	15.6	783
19	A systematic investigation of the formation of ordered mesoporous silicas using poly(ethylene oxide)-b-poly(methyl methacrylate) as the template. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 8819	13	27
18	Development of Sinter-Resistant Core-Shell LaMn <sub>x</sub> Fe <sub>1-x</sub> O <sub>3</sub> @mSiO <sub>2</sub> Oxygen Carriers for Chemical Looping Combustion. <i>Energy &amp; Fuels</i> , <b>2012</b> , 26, 3091-3102	4.1	40
17	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> , <b>2012</b> , 134, 17653-60	16.4	202
16	Synthesis of Dual-Mesoporous Silica Using Non-Ionic Diblock Copolymer and Cationic Surfactant as Co-Templates. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 6253-6257	3.6	30
15	Synthesis of dual-mesoporous silica using non-ionic diblock copolymer and cationic surfactant as co-templates. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 6149-53	16.4	92
14	Free-standing mesoporous carbon thin films with highly ordered pore architectures for nanodevices. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 15148-56	16.4	235
13	Hierarchically Ordered Macro-/Mesoporous Silica Monolith: Tuning Macropore Entrance Size for Size-Selective Adsorption of Proteins. <i>Chemistry of Materials</i> , <b>2011</b> , 23, 2176-2184	9.6	186
12	Solvent evaporation induced aggregating assembly approach to three-dimensional ordered mesoporous silica with ultralarge accessible mesopores. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 20369-77	16.4	138
11	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> , <b>2011</b> , 13, 784-792	3.4	37
10	Magnetically responsive ordered mesoporous materials: A burgeoning family of functional composite nanomaterials. <i>Chemical Physics Letters</i> , <b>2011</b> , 510, 1-13	2.5	82
9	Multifunctional mesoporous composite microspheres with well-designed nanostructure: a highly integrated catalyst system. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 8466-73	16.4	827
8	Controlled Synthesis and Functionalization of Ordered Large-Pore Mesoporous Carbons. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 3658-3665	15.6	117

7	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> , <b>2010</b> , 130, 26-31	5.3	32
6	Highly Water-Dispersible Biocompatible Magnetite Particles with Low Cytotoxicity Stabilized by Citrate Groups. <i>Angewandte Chemie</i> , <b>2009</b> , 121, 5989-5993	3.6	138
5	Highly water-dispersible biocompatible magnetite particles with low cytotoxicity stabilized by citrate groups. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 5875-9	16.4	703
4	A simple approach to the synthesis of hollow microspheres with magnetite/silica hybrid walls. <i>Journal of Colloid and Interface Science</i> , <b>2009</b> , 333, 329-34	9.3	28
3	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> , <b>2009</b> , 21, 3996-4005	9.6	93
2	Fabrication of polymeric nano-batteries array using anodic aluminum oxide templates. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2009</b> , 9, 929-32	1.3	
1	Ultra-Large-Pore Mesoporous Carbons Templated from Poly(ethylene oxide)-b-Polystyrene Diblock Copolymer by Adding Polystyrene Homopolymer as a Pore Expander. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 7281-7286	9.6	108