

# Zhigang Wang

## List of Publications by Year in descending order

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45  
papers

2,129  
citations

172457

29  
h-index

243625

44  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1384  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tetraethylenepentamine-grafted polyacrylonitrile-poly(methyl methacrylate) hollow fibers for low concentration CO <sub>2</sub> capture at ambient temperature. <i>Chemical Engineering Research and Design</i> , 2022, 157, 390-396.	5.6	11
2	Low-cost and facile fabrication of defect-free water permeable membrane for CO <sub>2</sub> hydrogenation to methanol. <i>Chemical Engineering Journal</i> , 2022, 435, 133554.	12.7	14
3	Highly efficient recovery of hydrogen from dilute H <sub>2</sub> -streams using BaCe <sub>0.7</sub> Zr <sub>0.1</sub> Y <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> /Ni-BaCe <sub>0.7</sub> Zr <sub>0.1</sub> Y <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> dual-layer hollow fiber membrane. <i>Separation and Purification Technology</i> , 2022, 287, 120602.	7.9	4
4	Externally self-supported metallic nickel hollow fiber membranes for hydrogen separation. <i>Journal of Membrane Science</i> , 2022, 653, 120513.	8.2	10
5	Double redox process to synthesize CuO@CeO <sub>2</sub> catalysts with strong Cu-Ce interaction for efficient toluene oxidation. <i>Journal of Hazardous Materials</i> , 2021, 404, 124088.	12.4	91
6	Recent progress in direct carbon solid oxide fuel cell: Advanced anode catalysts, diversified carbon fuels, and heat management. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 4283-4300.	7.1	57
7	A mini-review on recent developments in SAPO-34 zeolite membranes and membrane reactors. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 52-66.	3.7	39
8	Zeolite membrane reactors: from preparation to application in heterogeneous catalytic reactions. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 401-417.	3.7	23
9	CFD simulation on hydrogen-membrane reactor integrating cyclohexane dehydrogenation and CO <sub>2</sub> methanation reactions: A conceptual study. <i>Energy Conversion and Management</i> , 2021, 235, 113989.	9.2	15
10	High Temperature Water Permeable Membrane Reactors for CO <sub>2</sub> Utilization. <i>Chemical Engineering Journal</i> , 2021, 420, 129834.	12.7	38
11	Simultaneous hydrogen and oxygen permeation through BaCe <sub>0.7</sub> Fe <sub>0.1</sub> Sc <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> perovskite hollow fiber membranes. <i>Journal of Membrane Science</i> , 2021, 635, 119513.	8.2	12
12	A superb water permeable membrane for potential applications in CO <sub>2</sub> to liquid fuel process. <i>Journal of Membrane Science</i> , 2021, 639, 119682.	8.2	8
13	Coupling CO <sub>2</sub> separation with catalytic reverse water-gas shift reaction via ceramic-carbonate dual-phase membrane reactor. <i>Chemical Engineering Journal</i> , 2020, 379, 122182.	12.7	69
14	High CO <sub>2</sub> permeability of ceramic-carbonate dual-phase hollow fiber membrane at medium-high temperature. <i>Journal of Membrane Science</i> , 2020, 597, 117770.	8.2	46
15	Catalytic mixed conducting ceramic membrane reactors for methane conversion. <i>Reaction Chemistry and Engineering</i> , 2020, 5, 1868-1891.	3.7	37
16	CFD Simulation of a Hydrogen-Permeable Membrane Reactor for CO <sub>2</sub> Reforming of CH <sub>4</sub> : The Interplay of the Reaction and Hydrogen Permeation. <i>Energy &amp; Fuels</i> , 2020, 34, 12366-12378.	5.1	29
17	Nanoporous Zeolite-A Sheltered Pd-Hollow Fiber Catalytic Membrane Reactor for Propane Dehydrogenation. <i>ACS Applied Nano Materials</i> , 2020, 3, 6675-6683.	5.0	30
18	A comprehensive review of anti-coking, anti-poisoning and anti-sintering catalysts for biomass tar reforming reaction. <i>Chemical Engineering Science: X</i> , 2020, 7, 100065.	1.5	19

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19	High H <sub>2</sub> permeable SAPO-34 hollow fiber membrane for high temperature propane dehydrogenation application. <i>AIChE Journal</i> , 2020, 66, e16278.	3.6	34
20	Highly Efficient NO Decomposition via Dual-Functional Catalytic Perovskite Hollow Fiber Membrane Reactor Coupled with Partial Oxidation of Methane at Medium-Low Temperature. <i>Environmental Science &amp; Technology</i> , 2019, 53, 9937-9946.	10.0	26
21	Re-evaluation of La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> hollow fiber membranes for oxygen separation after long-term storage of five and ten years. <i>Journal of Membrane Science</i> , 2019, 587, 117180.	8.2	42
22	A novel study of sulfur-resistance for CO <sub>2</sub> separation through asymmetric ceramic-carbonate dual-phase membrane at high temperature. <i>Journal of Membrane Science</i> , 2019, 581, 72-81.	8.2	32
23	Sintering and Coke Resistant Core/Shell Catalyst for Hydrocarbon Reforming. <i>ChemCatChem</i> , 2019, 11, 202-224.	3.7	84
24	High-performance catalytic perovskite hollow fiber membrane reactor for oxidative propane dehydrogenation. <i>Journal of Membrane Science</i> , 2019, 578, 36-42.	8.2	41
25	Catalytic Pd <sub>0.77</sub> Ag <sub>0.23</sub> alloy membrane reactor for high temperature water-gas shift reaction: Methane suppression. <i>Chemical Engineering Journal</i> , 2019, 362, 116-125.	12.7	61
26	Ni-phylosilicate structure derived Ni@SiO <sub>2</sub> @MgO catalysts for bi-reforming applications: acidity, basicity and thermal stability. <i>Catalysis Science and Technology</i> , 2018, 8, 1730-1742.	4.1	101
27	High oxygen permeable and CO <sub>2</sub> -tolerant SrCo <sub>x</sub> Fe <sub>0.9-x</sub> Nb <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> (x = 0.1-0.8) perovskite membranes: Behavior and mechanism. <i>Separation and Purification Technology</i> , 2018, 201, 30-40.	7.9	41
28	Sintering resistant Ni nanoparticles exclusively confined within SiO <sub>2</sub> nanotubes for CH <sub>4</sub> dry reforming. <i>Catalysis Science and Technology</i> , 2018, 8, 3363-3371.	4.1	71
29	High carbon resistant Ni@Ni phyllosilicate@SiO <sub>2</sub> core shell hollow sphere catalysts for low temperature CH <sub>4</sub> dry reforming. <i>Journal of CO<sub>2</sub> Utilization</i> , 2018, 27, 238-246.	6.8	122
30	Low temperature partial oxidation of methane via BaBi <sub>0.05</sub> Co <sub>0.8</sub> Nb <sub>0.15</sub> O <sub>3-<math>\delta</math></sub> -Ni phyllosilicate catalytic hollow fiber membrane reactor. <i>Chemical Engineering Journal</i> , 2017, 315, 315-323.	12.7	54
31	Highly active and coke resistant Ni/SiO <sub>2</sub> catalysts for oxidative reforming of model biogas: Effect of low ceria loading. <i>Journal of CO<sub>2</sub> Utilization</i> , 2017, 19, 284-295.	6.8	54
32	Oxidative steam reforming of biomass tar model compound via catalytic BaBi <sub>0.05</sub> Co <sub>0.8</sub> Nb <sub>0.15</sub> O <sub>3-<math>\delta</math></sub> hollow fiber membrane reactor. <i>Journal of Membrane Science</i> , 2016, 510, 417-425.	8.2	49
33	High Purity Oxygen Production via BBCN Perovskite Hollow Fiber Membrane Swept by Steam. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 6371-6377.	3.7	27
34	Ultra-high oxygen permeable BaBiCoNb hollow fiber membranes and their stability under pure CH <sub>4</sub> atmosphere. <i>Journal of Membrane Science</i> , 2014, 465, 151-158.	8.2	44
35	High performance oxygen permeable membranes with Nb-doped BaBi <sub>0.05</sub> Co <sub>0.95</sub> O <sub>3-<math>\delta</math></sub> perovskite oxides. <i>Journal of Membrane Science</i> , 2013, 431, 180-186.	8.2	51
36	Oxygen permeation and stability study of La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.8</sub> Ga <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> (LSCG) hollow fiber membrane with exposure to CO <sub>2</sub> , CH <sub>4</sub> and He. <i>Journal of Membrane Science</i> , 2013, 427, 240-249.	8.2	56

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37	Oxidative CO <sub>2</sub> Reforming of Methane in La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.8</sub> Ga <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> (LSCG) Hollow Fiber Membrane Reactor. Environmental Science & Technology, 2013, 47, 14510-14517.	10.0	66
38	Preparation and oxygen permeation properties of SrCo <sub>0.9</sub> Nb <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> hollow fibre membranes. Separation and Purification Technology, 2011, 78, 175-180.	7.9	24
39	Pilot-scale production of oxygen from air using perovskite hollow fibre membranes. Journal of Membrane Science, 2010, 352, 189-196.	8.2	99
40	Effects of Sintering on the Properties of La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> Perovskite Hollow Fiber Membranes. Industrial & Engineering Chemistry Research, 2010, 49, 2895-2901.	3.7	45
41	Improvement of the oxygen permeation through perovskite hollow fibre membranes by surface acid-modification. Journal of Membrane Science, 2009, 345, 65-73.	8.2	76
42	SrCo <sub>0.9</sub> Sc <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> perovskite hollow fibre membranes for air separation at intermediate temperatures. Journal of the European Ceramic Society, 2009, 29, 2815-2822.	5.7	59
43	Preparation and Oxygen Permeation Properties of Highly Asymmetric La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> Perovskite Hollow-Fiber Membranes. Industrial & Engineering Chemistry Research, 2009, 48, 510-516.	3.7	99
44	Enhancement of oxygen permeation through La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> hollow fibre membranes by surface modifications. Journal of Membrane Science, 2008, 324, 128-135.	8.2	115
45	A CFD study on the performance of CO <sub>2</sub> methanation in water-permeable membrane reactor system. Reaction Chemistry and Engineering, 0, , .	3.7	4