

Baowei Wang

List of Publications by Citations

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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.

91
papers

1,279
citations

19
h-index

31
g-index

92
ext. papers

1,575
ext. citations

5.4
avg, IF

4.96
L-index

#	Paper	IF	Citations
91	Plasma-catalytic removal of toluene over CeO ₂ -MnO _x catalysts in an atmosphere dielectric barrier discharge. <i>Chemical Engineering Journal</i> , 2017 , 322, 679-692	14.7	149
90	Effects of MoO ₃ loading and calcination temperature on the activity of the sulphur-resistant methanation catalyst MoO ₃ /Al ₂ O ₃ . <i>Applied Catalysis A: General</i> , 2012 , 431-432, 144-150	5.1	79
89	Effect of dielectric packing materials on the decomposition of carbon dioxide using DBD microplasma reactor. <i>AIChE Journal</i> , 2015 , 61, 898-903	3.6	51
88	Synergetic catalysis of CuO and graphene additives on TiO ₂ for photocatalytic water splitting. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 7232-7240	6.7	44
87	A comparative study of CeO ₂ -Al ₂ O ₃ support prepared with different methods and its application on MoO ₃ /CeO ₂ -Al ₂ O ₃ catalyst for sulfur-resistant methanation. <i>Applied Surface Science</i> , 2013 , 285, 267-277	6.7	42
86	Degradation of methylene blue using double-chamber dielectric barrier discharge reactor under different carrier gases. <i>Chemical Engineering Science</i> , 2017 , 168, 90-100	4.4	41
85	Investigation of sulfur-resistant, highly active unsupported MoS ₂ catalysts for synthetic natural gas production from CO methanation. <i>Fuel Processing Technology</i> , 2013 , 110, 249-257	7.2	40
84	Hydrogen generation from steam reforming of ethanol in dielectric barrier discharge. <i>Journal of Natural Gas Chemistry</i> , 2011 , 20, 151-154		38
83	Degradation of CO ₂ through dielectric barrier discharge microplasma 2015 , 5, 131-140		33
82	Effect of sulfidation temperature on CoO/MoO ₃ /Al ₂ O ₃ catalyst for sulfur-resistant methanation. <i>Catalysis Science and Technology</i> , 2013 , 3, 2793	5.5	30
81	Effect of zirconia morphology on sulfur-resistant methanation performance of MoO ₃ /ZrO ₂ catalyst. <i>Applied Surface Science</i> , 2018 , 441, 482-490	6.7	29
80	Effect of sulfidation temperature on the catalytic activity of MoO ₃ /CeO ₂ -Al ₂ O ₃ toward sulfur-resistant methanation. <i>Applied Catalysis A: General</i> , 2013 , 466, 224-232	5.1	29
79	Methane conversion into higher hydrocarbons with dielectric barrier discharge micro-plasma reactor. <i>Journal of Energy Chemistry</i> , 2013 , 22, 876-882	12	29
78	Hydrodynamic cavitation as a promising route for wastewater treatment [A review]. <i>Chemical Engineering Journal</i> , 2021 , 412, 128685	14.7	29
77	Effect of cobalt and its adding sequence on the catalytic performance of MoO ₃ /Al ₂ O ₃ toward sulfur-resistant methanation. <i>Journal of Energy Chemistry</i> , 2014 , 23, 35-42	12	28
76	Plasma-Catalyst Synergy During Methanol Steam Reforming in Dielectric Barrier Discharge Micro-plasma Reactors for Hydrogen Production. <i>Plasma Chemistry and Plasma Processing</i> , 2015 , 35, 187-199	3.6	25
75	Kinetic model of the methane conversion into higher hydrocarbons with a dielectric barrier discharge microplasma reactor. <i>Chemical Engineering Journal</i> , 2013 , 234, 354-360	14.7	23

74	High CO methanation activity on zirconia-supported molybdenum sulfide catalyst. <i>Journal of Energy Chemistry</i> , 2014 , 23, 625-632	12	22
73	Effect of the ceria/alumina composite support on the Mo-based catalyst's sulfur-resistant activity for the synthetic natural gas process. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2012 , 106, 495-506	1.6	22
72	Toluene removal over TiO ₂ -BaTiO ₃ catalysts in an atmospheric dielectric barrier discharge. <i>Journal of Environmental Chemical Engineering</i> , 2018 , 6, 3819-3826	6.8	19
71	Effect of sulfidation temperature on the catalytic behavior of unsupported MoS ₂ catalysts for synthetic natural gas production from syngas. <i>Journal of Molecular Catalysis A</i> , 2013 , 378, 99-108		19
70	Recent Developments in Commercial Processes for Refining Bio-Feedstocks to Renewable Diesel. <i>Bioenergy Research</i> , 2018 , 11, 689-702	3.1	18
69	Effects of CeO ₂ preparation methods on the catalytic performance of MoO ₃ /CeO ₂ toward sulfur-resistant methanation. <i>Journal of Energy Chemistry</i> , 2017 , 26, 368-372	12	17
68	Comparative study on cubic and tetragonal Ce _x Zr _{1-x} O ₂ supported MoO ₃ -catalysts for sulfur-resistant methanation. <i>Applied Surface Science</i> , 2018 , 433, 730-738	6.7	17
67	The role of the distribution of Ce species on MoO ₃ /CeO ₂ /Al ₂ O ₃ catalysts in sulfur-resistant methanation. <i>Catalysis Communications</i> , 2013 , 35, 32-35	3.2	16
66	Conversion of Methane by Steam Reforming Using Dielectric-barrier Discharge. <i>Chinese Journal of Chemical Engineering</i> , 2009 , 17, 625-629	3.2	16
65	Development of Novel Bioreactor Control Systems Based on Smart Sensors and Actuators. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 7	5.8	15
64	Effect of stepwise sulfidation on a MoO ₃ /CeO ₂ /Al ₂ O ₃ catalyst for sulfur-resistant methanation. <i>Applied Catalysis A: General</i> , 2014 , 469, 89-97	5.1	15
63	Effect of Citric Acid on MoO ₃ /Al ₂ O ₃ Catalysts for Sulfur-Resistant Methanation. <i>Catalysts</i> , 2017 , 7, 151	4	14
62	Effect of a promoter on the methanation activity of a Mo-based sulfur-resistant catalyst. <i>Frontiers of Chemical Science and Engineering</i> , 2013 , 7, 88-94	4.5	13
61	Plasma-catalytic degradation of tetracycline hydrochloride over Mn/Al ₂ O ₃ catalysts in a dielectric barrier discharge reactor. <i>Plasma Science and Technology</i> , 2019 , 21, 065503	1.5	12
60	Conversion of Methane to C ₂ Hydrocarbons and Hydrogen Using a Gliding Arc Reactor. <i>Plasma Science and Technology</i> , 2013 , 15, 555-561	1.5	12
59	Conversion of CH ₄ , steam and O ₂ to syngas and hydrocarbons via dielectric barrier discharge. <i>Journal of Natural Gas Chemistry</i> , 2009 , 18, 94-97		12
58	Synthesis of Methyl Glycolate by Hydrogenation of Dimethyl Oxalate over Cu-Ag/SiO ₂ Catalyst. <i>Journal of Natural Gas Chemistry</i> , 2007 , 16, 78-80		11
57	EFFECT OF Cu CATALYST PREPARATION ON THE OXIDATIVE CARBONYLATION OF METHANOL TO DIMETHYL CARBONATE. <i>Reaction Kinetics and Catalysis Letters</i> , 2002 , 76, 179-187		11

56	Kinetics of sulfur-resistant methanation over supported molybdenum-based catalyst. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016 , 68, 239-245	5.3	11
55	Sulfur-Resistant CO Methanation to CH ₄ Over MoS ₂ /ZrO ₂ Catalysts: Support Size Effect On Morphology and Performance of Mo Species. <i>Catalysis Letters</i> , 2018 , 148, 2585-2595	2.8	10
54	Comparison of the preparation methods for a highly efficient CuO/TiO ₂ photocatalyst for hydrogen generation from water. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2014 , 112, 559-572	1.6	9
53	Steam Reforming of Dimethyl Ether by Gliding Arc Gas Discharge Plasma for Hydrogen Production. <i>Chinese Journal of Chemical Engineering</i> , 2014 , 22, 104-112	3.2	9
52	Effect of Hydrogen on Catalytic Coupling Reaction of Carbon Monoxide to Diethyl Oxalate. <i>Reaction Kinetics and Catalysis Letters</i> , 2001 , 73, 135-142		9
51	Oxidation of NO with O ₃ under different conditions and the effects of SO ₂ and H ₂ O vapor. <i>Chemical Engineering Research and Design</i> , 2020 , 133, 216-223	5.5	9
50	A DFT study on CO methanation over the activated basal plane from a strained two-dimensional nano-MoS ₂ . <i>Applied Surface Science</i> , 2019 , 479, 360-367	6.7	9
49	Enhanced methanation stability of nano-sized MoS ₂ catalysts by adding Al ₂ O ₃ . <i>Frontiers of Chemical Science and Engineering</i> , 2015 , 9, 33-39	4.5	8
48	DFT study into the reaction mechanism of CO methanation over pure MoS ₂ . <i>International Journal of Quantum Chemistry</i> , 2018 , 118, e25643	2.1	8
47	MoP/Al ₂ O ₃ as a novel catalyst for sulfur-resistant methanation. <i>Applied Organometallic Chemistry</i> , 2018 , 32, e4515	3.1	8
46	Pd-Fe/Al ₂ O ₃ /cordierite monolithic catalysts for the synthesis of dimethyl oxalate: effects of calcination and structure. <i>Frontiers of Chemical Science and Engineering</i> , 2012 , 6, 259-269	4.5	8
45	Conversion of natural gas to C ₂ hydrocarbons through dielectric-barrier discharge plasma catalysis. <i>Science in China Series B: Chemistry</i> , 2002 , 45, 299		8
44	Simultaneous desulfurization and denitrification of flue gas by pre-ozonation combined with ammonia absorption. <i>Chinese Journal of Chemical Engineering</i> , 2020 , 28, 2457-2466	3.2	8
43	Insight for the effect of bridging S ₂ ²⁻ in molybdenum sulfide catalysts toward sulfur-resistant methanation. <i>Applied Surface Science</i> , 2019 , 471, 670-677	6.7	8
42	Evolutionary engineering of Escherichia coli for improved anaerobic growth in minimal medium accelerated lactate production. <i>Applied Microbiology and Biotechnology</i> , 2019 , 103, 2155-2170	5.7	8
41	Screening, expression, purification and characterization of CoA-transferases for lactoyl-CoA generation. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2019 , 46, 899-909	4.2	7
40	H ₂ production by ethanol decomposition with a gliding arc discharge plasma reactor. <i>Frontiers of Chemical Science and Engineering</i> , 2013 , 7, 145-153	4.5	7
39	Influence of Electrode Interval and Barrier Thickness in the Segmented Electrode Micro-plasma DBD Reactor on CO ₂ Decomposition. <i>Plasma Chemistry and Plasma Processing</i> , 2020 , 40, 1189-1206	3.6	6

38	Oxidative reforming of n-heptane in gliding arc plasma reformer for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 22831-22840	6.7	6
37	Active phase of highly active Co ₃ O ₄ catalyst for synthetic natural gas production. <i>RSC Advances</i> , 2014 , 4, 57185-57191	3.7	6
36	Hydrogen production from methanol through dielectric barrier discharge. <i>Frontiers of Chemical Science and Engineering</i> , 2011 , 5, 209-214	4.5	6
35	Precursor effect on catalytic properties of Mo-based catalyst for sulfur-resistant methanation. <i>Korean Journal of Chemical Engineering</i> , 2014 , 31, 2157-2161	2.8	5
34	Examination of Tunable Edge Sites and Catalyst Deactivation in the MoS ₂ -Catalyzed Methanation of Syngas. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 21996-22005	3.9	5
33	Promoted effect of cobalt on surface (0 1 0) of MoS ₂ for CO methanation from a DFT study. <i>Applied Surface Science</i> , 2019 , 463, 635-646	6.7	5
32	Carbon-Limited Conversion of Molybdenum Carbide into Curved Ultrasmall Monolayer Molybdenum Disulfide under Effects of ZrO ₂ Crystal Phases for Efficient Sulfur-Resistant Methanation. <i>ChemCatChem</i> , 2019 , 11, 3046-3053	5.2	4
31	Phytic acid-derived fabrication of ultra-small MoP nanoparticles for efficient CO methanation: Effects of P/Mo ratios. <i>Journal of Energy Chemistry</i> , 2020 , 47, 248-255	12	4
30	Effect of citric acid on CoO/MoO ₃ /Al ₂ O ₃ catalysts for sulfur-resistant methanation. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2018 , 125, 111-126	1.6	4
29	Effect of sulphidation temperature on the performance of NiO/MoO ₃ /Al ₂ O ₃ catalysts for sulphur-resistant methanation. <i>RSC Advances</i> , 2014 , 4, 56174-56182	3.7	4
28	Influence of Water on the Methanation Performance of Mo-Based Sulfur-Resistant Catalysts with and without Cobalt Additive. <i>Bulletin of the Korean Chemical Society</i> , 2015 , 36, 74-82	1.2	4
27	Conversion of methane through dielectric-barrier discharge plasma. <i>Frontiers of Chemical Engineering in China</i> , 2008 , 2, 373-378		4
26	Hydrodynamic cavitation(HC) degradation of tetracycline hydrochloride(TC). <i>Separation and Purification Technology</i> , 2021 , 282, 120095	8.3	4
25	Hydrogen Production via Partial Oxidation Reforming of Methane with Gliding Arc Discharge Plasma. <i>ChemistrySelect</i> , 2020 , 5, 13781-13787	1.8	4
24	Genetic Diversity for Accelerating Microbial Adaptive Laboratory Evolution. <i>ACS Synthetic Biology</i> , 2021 , 10, 1574-1586	5.7	4
23	Oxycarbonylation of methanol over modified CuY: Enhanced activity by improving accessibility of active sites. <i>Chinese Chemical Letters</i> , 2019 , 30, 775-778	8.1	4
22	Sulfur-resistant methanation over MoO ₃ /CeO ₂ -ZrO ₂ catalyst: Influence of Ce-addition methods. <i>Journal of Energy Chemistry</i> , 2019 , 28, 31-38	12	4
21	Dielectric barrier micro-plasma reactor with segmented outer electrode for decomposition of pure CO ₂ . <i>Frontiers of Chemical Science and Engineering</i> , 2021 , 15, 687-697	4.5	4

20	Effect of boron addition on the MoO ₃ /CeO ₂ /Al ₂ O ₃ catalyst in the sulfur-resistant methanation. <i>Chinese Journal of Chemical Engineering</i> , 2018 , 26, 509-513	3.2	3
19	Degradation of methyl orange using dielectric barrier discharge water falling film reactor. <i>Journal of Advanced Oxidation Technologies</i> , 2017 , 20,		3
18	Steam reforming of methane in a gliding arc discharge reactor to produce hydrogen and its chemical kinetics study. <i>Chemical Engineering Science</i> , 2022 , 253, 117560	4.4	3
17	A comprehensive review on persulfate activation treatment of wastewater.. <i>Science of the Total Environment</i> , 2022 , 154906	10.2	3
16	The main factors controlling generation of synthetic natural gas by methanation of synthesis gas in the presence of sulfur-resistant Mo-based catalysts. <i>Kinetics and Catalysis</i> , 2013 , 54, 338-343	1.5	2
15	Effects of additive gases on dimethyl ether conversion through dielectric barrier discharge. <i>Journal of Natural Gas Chemistry</i> , 2009 , 18, 441-444		2
14	Distribution of Electrical Field Energy for Conversion of Methane to C ₂ Hydrocarbons via Dissymmetrical Electric Field Enhanced Plasma. <i>Journal of Natural Gas Chemistry</i> , 2006 , 15, 115-121		2
13	Mo-Based Catalyst Supported on Binary Ceria/Lanthanum Solid Solution for Sulfur-Resistant Methanation: Effect of La Dopant. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 1803-1811	3.9	2
12	Methanation Performance of Unsupported MoP Catalysts Prepared with Phytic Acid under Low H ₂ /CO. <i>ChemistrySelect</i> , 2020 , 5, 7586-7595	1.8	1
11	The effect of citric acid on the catalytic activity of nano-sized MoS ₂ toward sulfur-resistant CO methanation. <i>Applied Organometallic Chemistry</i> , 2018 , 32, e4339	3.1	1
10	Effects of Mo ₂ C loading and H ₂ S concentration on Mo ₂ C/Al ₂ O ₃ catalyst applied in sulfur-resistant methanation. <i>Applied Organometallic Chemistry</i> , 2019 , 33, e5208	3.1	1
9	Effects of preparation method and Mo ₂ C loading on the Mo ₂ C/ZrO ₂ catalyst for sulfur-resistant methanation. <i>Molecular Catalysis</i> , 2020 , 482, 110668	3.3	1
8	AlPO ₄ -free MoP/Al ₂ O ₃ catalyst for methanation under low H ₂ /CO. <i>Applied Surface Science</i> , 2020 , 526, 146461	6.7	1
7	Heptane dry reforming and coupling with partial oxidation in gliding arc discharge plasma for H ₂ production. <i>Fuel Processing Technology</i> , 2021 , 221, 106943	7.2	1
6	A dye-methylene blue (MB)-degraded by hydrodynamic cavitation (HC) and combined with other oxidants. <i>Journal of Environmental Chemical Engineering</i> , 2022 , 107877	6.8	1
5	Enhancing stability of MoS ₂ catalysts for sulfur-resistant methanation by tuning interlayer interaction. <i>Molecular Catalysis</i> , 2022 , 517, 112057	3.3	0
4	Effect of filling materials on CO ₂ conversion with a dielectric barrier discharge reactor. <i>Journal of Environmental Chemical Engineering</i> , 2021 , 9, 106370	6.8	0
3	Optimization of Co-precipitation Condition for Preparing Molybdenum-Based Sulfur-Resistant Methanation Catalysts. <i>Transactions of Tianjin University</i> , 2019 , 25, 504-516	2.9	

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| 2 | Effect of N ₂ and Ar on CO ₂ conversion with segmented micro-plasma reactor. <i>Waste Disposal & Sustainable Energy</i> ,1 | 4-3 |
| 1 | Effects of Catalyst Support on Hydroprocessing. <i>Catalytic Science Series</i> , 2018 , 175-205 | 0-4 |