Baowei Wang

List of Publications by Year in Descending Order

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	Enhancing stability of MoS2 catalysts for sulfur-resistant methanation by tuning interlayer interaction. *Molecular Catalysis*, **2022**, 517, 112057	3.3	0
90	Steam reforming of methane in a gliding arc discharge reactor to produce hydrogen and its chemical kinetics study. *Chemical Engineering Science*, **2022**, 253, 117560	4.4	3
89	A comprehensive review on persulfate activation treatment of wastewater.. *Science of the Total Environment*, **2022**, 154906	10.2	3
88	A dye-methylene blue (MB)-degraded by hydrodynamic cavitation (HC) and combined with other oxidants. *Journal of Environmental Chemical Engineering*, **2022**, 107877	6.8	1
87	Hydrodynamic cavitation(HC) degradation of tetracycline hydrochloride(TC). *Separation and Purification Technology*, **2021**, 282, 120095	8.3	4
86	Hydrodynamic cavitation as a promising route for wastewater treatment □A review. *Chemical Engineering Journal*, **2021**, 412, 128685	14.7	29
85	Genetic Diversity for Accelerating Microbial Adaptive Laboratory Evolution. *ACS Synthetic Biology*, **2021**, 10, 1574-1586	5.7	4
84	Dielectric barrier micro-plasma reactor with segmented outer electrode for decomposition of pure CO2. *Frontiers of Chemical Science and Engineering*, **2021**, 15, 687-697	4.5	4
83	Heptane dry reforming and coupling with partial oxidation in gliding arc discharge plasma for H2 production. *Fuel Processing Technology*, **2021**, 221, 106943	7.2	1
82	Effect of filling materials on CO2 conversion with a dielectric barrier discharge reactor. *Journal of Environmental Chemical Engineering*, **2021**, 9, 106370	6.8	0
81	Influence of Electrode Interval and Barrier Thickness in the Segmented Electrode Micro-plasma DBD Reactor on CO2 Decomposition. *Plasma Chemistry and Plasma Processing*, **2020**, 40, 1189-1206	3.6	6
80	Methanation Performance of Unsupported MoP Catalysts Prepared with Phytic Acid under Low H2/CO. *ChemistrySelect*, **2020**, 5, 7586-7595	1.8	1
79	Development of Novel Bioreactor Control Systems Based on Smart Sensors and Actuators. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 7	5.8	15
78	Phytic acid-derived fabrication of ultra-small MoP nanoparticles for efficient CO methanation: Effects of P/Mo ratios. *Journal of Energy Chemistry*, **2020**, 47, 248-255	12	4
77	Simultaneous desulfurization and denitrification of flue gas by pre-ozonation combined with ammonia absorption. *Chinese Journal of Chemical Engineering*, **2020**, 28, 2457-2466	3.2	8
76	Oxidation of NO with O3 under different conditions and the effects of SO2 and H2O vapor. *Chemical Engineering Research and Design*, **2020**, 133, 216-223	5.5	9
75	Effects of preparation method and Mo2C loading on the Mo2C/ZrO2 catalyst for sulfur-resistant methanation. *Molecular Catalysis*, **2020**, 482, 110668	3.3	1

74	AlPO4-free MoP/γ-Al2O3 catalyst for methanation under low H2/CO. *Applied Surface Science*, **2020**, 526, 146461	6.7	1
73	Hydrogen Production via Partial Oxidation Reforming of Methane with Gliding Arc Discharge Plasma. *ChemistrySelect*, **2020**, 5, 13781-13787	1.8	4
72	Carbon-Limited Conversion of Molybdenum Carbide into Curved Ultrasmall Monolayer Molybdenum Disulfide under Effects of ZrO2 Crystal Phases for Efficient Sulfur-Resistant Methanation. *ChemCatChem*, **2019**, 11, 3046-3053	5.2	4
71	Plasma-catalytic degradation of tetracycline hydrochloride over Mn/γ-Al2O3 catalysts in a dielectric barrier discharge reactor. *Plasma Science and Technology*, **2019**, 21, 065503	1.5	12
70	Screening, expression, purification and characterization of CoA-transferases for lactoyl-CoA generation. *Journal of Industrial Microbiology and Biotechnology*, **2019**, 46, 899-909	4.2	7
69	Optimization of Co-precipitation Condition for Preparing Molybdenum-Based Sulfur-Resistant Methanation Catalysts. *Transactions of Tianjin University*, **2019**, 25, 504-516	2.9	
68	Oxidative reforming of n-heptane in gliding arc plasma reformer for hydrogen production. *International Journal of Hydrogen Energy*, **2019**, 44, 22831-22840	6.7	6
67	Effects of Mo2C loading and H2S concentration on Mo2C/Al2O3 catalyst applied in sulfur-resistant methanation. *Applied Organometallic Chemistry*, **2019**, 33, e5208	3.1	1
66	A DFT study on CO methanation over the activated basal plane from a strained two-dimensional nano-MoS2. *Applied Surface Science*, **2019**, 479, 360-367	6.7	9
65	Examination of Tunable Edge Sites and Catalyst Deactivation in the MoS2-Catalyzed Methanation of Syngas. *Industrial & Engineering Chemistry Research*, **2019**, 58, 21996-22005	3.9	5
64	Promoted effect of cobalt on surface (0 1 0) of MoS2 for CO methanation from a DFT study. *Applied Surface Science*, **2019**, 463, 635-646	6.7	5
63	Insight for the effect of bridging S22- in molybdenum sulfide catalysts toward sulfur-resistant methanation. *Applied Surface Science*, **2019**, 471, 670-677	6.7	8
62	Evolutionary engineering of Escherichia coli for improved anaerobic growth in minimal medium accelerated lactate production. *Applied Microbiology and Biotechnology*, **2019**, 103, 2155-2170	5.7	8
61	Mo-Based Catalyst Supported on Binary Ceria–Lanthanum Solid Solution for Sulfur-Resistant Methanation: Effect of La Dopant. *Industrial & Engineering Chemistry Research*, **2019**, 58, 1803-1811	3.9	2
60	Oxycarbonylation of methanol over modified CuY: Enhanced activity by improving accessibility of active sites. *Chinese Chemical Letters*, **2019**, 30, 775-778	8.1	4
59	Sulfur-resistant methanation over MoO3/CeO2-ZrO2 catalyst: Influence of Ce-addition methods. *Journal of Energy Chemistry*, **2019**, 28, 31-38	12	4
58	Effect of zirconia morphology on sulfur-resistant methanation performance of MoO3/ZrO2 catalyst. *Applied Surface Science*, **2018**, 441, 482-490	6.7	29
57	DFT study into the reaction mechanism of CO methanation over pure MoS2. *International Journal of Quantum Chemistry*, **2018**, 118, e25643	2.1	8

56	The effect of citric acid on the catalytic activity of nano-sized MoS2 toward sulfur-resistant CO methanation. *Applied Organometallic Chemistry*, **2018**, 32, e4339	3.1	1
55	Comparative study on cubic and tetragonal CexZr1-xO2 supported MoO3-catalysts for sulfur-resistant methanation. *Applied Surface Science*, **2018**, 433, 730-738	6.7	17
54	Effect of boron addition on the MoO 3 /CeO 2 -Al 2 O 3 catalyst in the sulfur-resistant methanation. *Chinese Journal of Chemical Engineering*, **2018**, 26, 509-513	3.2	3
53	MoP/Al2O3 as a novel catalyst for sulfur-resistant methanation. *Applied Organometallic Chemistry*, **2018**, 32, e4515	3.1	8
52	Effect of citric acid on CoO-MoO3/Al2O3 catalysts for sulfur-resistant methanation. *Reaction Kinetics, Mechanisms and Catalysis*, **2018**, 125, 111-126	1.6	4
51	Sulfur-Resistant CO Methanation to CH4 Over MoS2/ZrO2 Catalysts: Support Size Effect On Morphology and Performance of Mo Species. *Catalysis Letters*, **2018**, 148, 2585-2595	2.8	10
50	Toluene removal over TiO2-BaTiO3 catalysts in an atmospheric dielectric barrier discharge. *Journal of Environmental Chemical Engineering*, **2018**, 6, 3819-3826	6.8	19
49	Effects of Catalyst Support on Hydroprocessing. *Catalytic Science Series*, **2018**, 175-205	0.4	
48	Recent Developments in Commercial Processes for Refining Bio-Feedstocks to Renewable Diesel. *Bioenergy Research*, **2018**, 11, 689-702	3.1	18
47	Effects of CeO 2 preparation methods on the catalytic performance of MoO 3 /CeO 2 toward sulfur-resistant methanation. *Journal of Energy Chemistry*, **2017**, 26, 368-372	12	17
46	Degradation of methylene blue using double-chamber dielectric barrier discharge reactor under different carrier gases. *Chemical Engineering Science*, **2017**, 168, 90-100	4.4	41
45	Plasma-catalytic removal of toluene over CeO 2 -MnO x catalysts in an atmosphere dielectric barrier discharge. *Chemical Engineering Journal*, **2017**, 322, 679-692	14.7	149
44	Degradation of methyl orange using dielectric barrier discharge water falling film reactor. *Journal of Advanced Oxidation Technologies*, **2017**, 20,		3
43	Effect of Citric Acid on MoO3/Al2O3 Catalysts for Sulfur-Resistant Methanation. *Catalysts*, **2017**, 7, 151	4	14
42	Kinetics of sulfur-resistant methanation over supported molybdenum-based catalyst. *Journal of the Taiwan Institute of Chemical Engineers*, **2016**, 68, 239-245	5.3	11
41	Enhanced methanation stability of nano-sized MoS2 catalysts by adding Al2O3. *Frontiers of Chemical Science and Engineering*, **2015**, 9, 33-39	4.5	8
40	Degradation of CO2 through dielectric barrier discharge microplasma **2015**, 5, 131-140		33
39	Influence of Water on the Methanation Performance of Mo-Based Sulfur-Resistant Catalysts with and without Cobalt Additive. *Bulletin of the Korean Chemical Society*, **2015**, 36, 74-82	1.2	4

38	Plasma–Catalyst Synergy During Methanol Steam Reforming in Dielectric Barrier Discharge Micro-plasma Reactors for Hydrogen Production. *Plasma Chemistry and Plasma Processing*, **2015**, 35, 187-199	3.6	25
37	Effect of dielectric packing materials on the decomposition of carbon dioxide using DBD microplasma reactor. *AICHE Journal*, **2015**, 61, 898-903	3.6	51
36	Effect of sulphidation temperature on the performance of NiO–MoO3/γ-Al2O3 catalysts for sulphur-resistant methanation. *RSC Advances*, **2014**, 4, 56174-56182	3.7	4
35	Active phase of highly active Co3O4 catalyst for synthetic natural gas production. *RSC Advances*, **2014**, 4, 57185-57191	3.7	6
34	High CO methanation activity on zirconia-supported molybdenum sulfide catalyst. *Journal of Energy Chemistry*, **2014**, 23, 625-632	12	22
33	Comparison of the preparation methods for a highly efficient CuO/TiO2 photocatalyst for hydrogen generation from water. *Reaction Kinetics, Mechanisms and Catalysis*, **2014**, 112, 559-572	1.6	9
32	Effect of cobalt and its adding sequence on the catalytic performance of MoO3/Al2O3 toward sulfur-resistant methanation. *Journal of Energy Chemistry*, **2014**, 23, 35-42	12	28
31	Effect of stepwise sulfidation on a MoO3/CeO2–Al2O3 catalyst for sulfur-resistant methanation. *Applied Catalysis A: General*, **2014**, 469, 89-97	5.1	15
30	Precursor effect on catalytic properties of Mo-based catalyst for sulfur-resistant methanation. *Korean Journal of Chemical Engineering*, **2014**, 31, 2157-2161	2.8	5
29	Steam Reforming of Dimethyl Ether by Gliding Arc Gas Discharge Plasma for Hydrogen Production. *Chinese Journal of Chemical Engineering*, **2014**, 22, 104-112	3.2	9
28	The main factors controlling generation of synthetic natural gas by methanation of synthesis gas in the presence of sulfur-resistant Mo-based catalysts. *Kinetics and Catalysis*, **2013**, 54, 338-343	1.5	2
27	Effect of sulfidation temperature on CoO–MoO3/γ-Al2O3 catalyst for sulfur-resistant methanation. *Catalysis Science and Technology*, **2013**, 3, 2793	5.5	30
26	Effect of a promoter on the methanation activity of a Mo-based sulfur-resistant catalyst. *Frontiers of Chemical Science and Engineering*, **2013**, 7, 88-94	4.5	13
25	Effect of sulfidation temperature on the catalytic behavior of unsupported MoS2 catalysts for synthetic natural gas production from syngas. *Journal of Molecular Catalysis A*, **2013**, 378, 99-108		19
24	Effect of sulfidation temperature on the catalytic activity of MoO3/CeO2–Al2O3 toward sulfur-resistant methanation. *Applied Catalysis A: General*, **2013**, 466, 224-232	5.1	29
23	The role of the distribution of Ce species on MoO3/CeO2–Al2O3 catalysts in sulfur-resistant methanation. *Catalysis Communications*, **2013**, 35, 32-35	3.2	16
22	Kinetic model of the methane conversion into higher hydrocarbons with a dielectric barrier discharge microplasma reactor. *Chemical Engineering Journal*, **2013**, 234, 354-360	14.7	23
21	Methane conversion into higher hydrocarbons with dielectric barrier discharge micro-plasma reactor. *Journal of Energy Chemistry*, **2013**, 22, 876-882	12	29

20	A comparative study of CeO2-Al2O3 support prepared with different methods and its application on MoO3/CeO2-Al2O3 catalyst for sulfur-resistant methanation. *Applied Surface Science*, **2013**, 285, 267-277	6.7	42
19	H2 production by ethanol decomposition with a gliding arc discharge plasma reactor. *Frontiers of Chemical Science and Engineering*, **2013**, 7, 145-153	4.5	7
18	Investigation of sulfur-resistant, highly active unsupported MoS2 catalysts for synthetic natural gas production from CO methanation. *Fuel Processing Technology*, **2013**, 110, 249-257	7.2	40
17	Synergetic catalysis of CuO and graphene additives on TiO2 for photocatalytic water splitting. *International Journal of Hydrogen Energy*, **2013**, 38, 7232-7240	6.7	44
16	Conversion of Methane to C2Hydrocarbons and Hydrogen Using a Gliding Arc Reactor. *Plasma Science and Technology*, **2013**, 15, 555-561	1.5	12
15	Effects of MoO3 loading and calcination temperature on the activity of the sulphur-resistant methanation catalyst MoO3/□Al2O3. *Applied Catalysis A: General*, **2012**, 431-432, 144-150	5.1	79
14	Pd-Fe/□Al2O3/cordierite monolithic catalysts for the synthesis of dimethyl oxalate: effects of calcination and structure. *Frontiers of Chemical Science and Engineering*, **2012**, 6, 259-269	4.5	8
13	Effect of the ceria□lumina composite support on the Mo-based catalyst□ sulfur-resistant activity for the synthetic natural gas process. *Reaction Kinetics, Mechanisms and Catalysis*, **2012**, 106, 495-506	1.6	22
12	Hydrogen generation from steam reforming of ethanol in dielectric barrier discharge. *Journal of Natural Gas Chemistry*, **2011**, 20, 151-154		38
11	Hydrogen production from methanol through dielectric barrier discharge. *Frontiers of Chemical Science and Engineering*, **2011**, 5, 209-214	4.5	6
10	Conversion of CH4, steam and O2 to syngas and hydrocarbons via dielectric barrier discharge. *Journal of Natural Gas Chemistry*, **2009**, 18, 94-97		12
9	Effects of additive gases on dimethyl ether conversion through dielectric barrier discharge. *Journal of Natural Gas Chemistry*, **2009**, 18, 441-444		2
8	Conversion of Methane by Steam Reforming Using Dielectric-barrier Discharge. *Chinese Journal of Chemical Engineering*, **2009**, 17, 625-629	3.2	16
7	Conversion of methane through dielectric-barrier discharge plasma. *Frontiers of Chemical Engineering in China*, **2008**, 2, 373-378		4
6	Synthesis of Methyl Glycolate by Hydrogenation of Dimethyl Oxalate over Cu-Ag/SiO2 Catalyst. *Journal of Natural Gas Chemistry*, **2007**, 16, 78-80		11
5	Distribution of Electrical Field Energy for Conversion of Methane to C2 Hydrocarbons via Dissymmetrical Electric Field Enhanced Plasma. *Journal of Natural Gas Chemistry*, **2006**, 15, 115-121		2
4	EFFECT OF Cu CATALYST PREPARATION ON THE OXIDATIVE CARBONYLATION OF METHANOL TO DIMETHYL CARBONATE. *Reaction Kinetics and Catalysis Letters*, **2002**, 76, 179-187		11
3	Conversion of natural gas to C2 hydrocarbons through dielectric-barrier discharge plasma catalysis. *Science in China Series B: Chemistry*, **2002**, 45, 299		8

2	Effect of Hydrogen on Catalytic Coupling Reaction of Carbon Monoxide to Diethyl Oxalate. *Reaction Kinetics and Catalysis Letters*, **2001**, 73, 135-142	9
1	Effect of N2 and Ar on CO2 conversion with segmented micro-plasma reactor. *Waste Disposal & Sustainable Energy*,1	4.3