Liangshu Zhong

List of Publications by Year
in descending order

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86 papers	5,673 citations	117625 34 h-index	76900 74 g-index
89 all docs	89 docs citations	89 times ranked	3914 citing authors

#	Article	IF	Citations
1	Direct conversion of CO2 into liquid fuels with high selectivity over a bifunctional catalyst. Nature Chemistry, 2017, 9, 1019-1024.	13.6	757
2	Cobalt carbide nanoprisms for direct production of lower olefins from syngas. Nature, 2016, 538, 84-87.	27.8	647
3	A review of the catalytic hydrogenation of carbon dioxide into value-added hydrocarbons. Catalysis Science and Technology, 2017, 7, 4580-4598.	4.1	385
4	Direct Production of Lower Olefins from CO₂ Conversion via Bifunctional Catalysis. ACS Catalysis, 2018, 8, 571-578.	11.2	382
5	Influence of Zr on the performance of Cu/Zn/Al/Zr catalysts via hydrotalcite-like precursors for CO2 hydrogenation to methanol. Journal of Catalysis, 2013, 298, 51-60.	6.2	322
6	Selective Production of Aromatics Directly from Carbon Dioxide Hydrogenation. ACS Catalysis, 2019, 9, 3866-3876.	11.2	177
7	Role of zirconium in direct CO2 hydrogenation to lower olefins on oxide/zeolite bifunctional catalysts. Journal of Catalysis, 2018, 364, 382-393.	6.2	174
8	Effects of Sodium on the Catalytic Performance of CoMn Catalysts for Fischerâ€"Tropsch to Olefin Reactions. ACS Catalysis, 2017, 7, 3622-3631.	11.2	157
9	CuFe, CuCo and CuNi nanoparticles as catalysts for higher alcohol synthesis from syngas: a comparative study. Catalysis Science and Technology, 2013, 3, 1591.	4.1	118
10	Advances in bifunctional catalysis for higher alcohol synthesis from syngas. Chinese Journal of Catalysis, 2013, 34, 116-129.	14.0	111
11	Highly efficient Cu-based catalysts via hydrotalcite-like precursors for CO2 hydrogenation to methanol. Catalysis Today, 2017, 281, 327-336.	4.4	111
12	Selective Transformation of CO₂ and H₂ into Lower Olefins over In₂O₃â€ZnZrO_{<i>x</i>}/SAPOâ€34 Bifunctional Catalysts. ChemSusChem, 2019, 12, 3582-3591.	6.8	103
13	Yttrium oxide modified Cu/ZnO/Al₂O₃catalysts via hydrotalcite-like precursors for CO₂hydrogenation to methanol. Catalysis Science and Technology, 2015, 5, 4365-4377.	4.1	99
14	Preparation and activity of Cu/Zn/Al/Zr catalysts via hydrotalcite-containing precursors for methanol synthesis from CO2 hydrogenation. Catalysis Science and Technology, 2012, 2, 1447.	4.1	95
15	Catalytic performance of spray-dried Cu/ZnO/Al 2 O 3 /ZrO 2 catalysts for slurry methanol synthesis from CO 2 hydrogenation. Journal of CO2 Utilization, 2016, 15, 72-82.	6.8	94
16	Direct Production of Higher Oxygenates by Syngas Conversion over a Multifunctional Catalyst. Angewandte Chemie - International Edition, 2019, 58, 4627-4631.	13.8	92
17	Mechanism of the Mn Promoter via CoMn Spinel for Morphology Control: Formation of Co₂C Nanoprisms for Fischerâ€"Tropsch to Olefins Reaction. ACS Catalysis, 2017, 7, 8023-8032.	11.2	79
18	Recent advances in the investigation of nanoeffects of Fischer-Tropsch catalysts. Catalysis Today, 2018, 311, 8-22.	4.4	77

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19	Structural evolution of CuFe bimetallic nanoparticles for higher alcohol synthesis. Journal of Molecular Catalysis A, 2013, 378, 319-325.	4.8	68
20	Direct Production of Higher Oxygenates by Syngas Conversion over a Multifunctional Catalyst. Angewandte Chemie, 2019, 131, 4675-4679.	2.0	65
21	Fischerâ€“Tropsch Synthesis to Olefins: Catalytic Performance and Structure Evolution of Co₂C-Based Catalysts under a CO₂ Environment. ACS Catalysis, 2019, 9, 9554-9567.	11.2	64
22	Effect of alkali metals on the performance of CoCu/TiO 2 catalysts for CO 2 hydrogenation to long-chain hydrocarbons. Chinese Journal of Catalysis, 2018, 39, 1294-1302.	14.0	63
23	Advances in direct production of value-added chemicals via syngas conversion. Science China Chemistry, 2017, 60, 887-903.	8.2	62
24	Deactivation study of CuCo catalyst for higher alcohol synthesis via syngas. Catalysis Today, 2016, 270, 101-107.	4.4	58
25	Direct synthesis of long-chain alcohols from syngas over CoMn catalysts. Applied Catalysis A: General, 2018, 549, 179-187.	4.3	57
26	Tuning the interaction between Na and Co2C to promote selective CO2 hydrogenation to ethanol. Applied Catalysis B: Environmental, 2021, 293, 120207.	20.2	57
27	Cobalt Carbide Nanocatalysts for Efficient Syngas Conversion to Value-Added Chemicals with High Selectivity. Accounts of Chemical Research, 2021, 54, 1961-1971.	15.6	54
28	Morphology control of Co2C nanostructures via the reduction process for direct production of lower olefins from syngas. Journal of Catalysis, 2018, 366, 289-299.	6.2	52
29	Particle Size Effects of Cobalt Carbide for Fischerâ€“Tropsch to Olefins. ACS Catalysis, 2019, 9, 798-809.	11.2	45
30	Preparation and CO 2 hydrogenation catalytic properties of alumina microsphere supported Cu-based catalyst by deposition-precipitation method. Journal of CO2 Utilization, 2017, 17, 263-272.	6.8	44
31	Enhancing CO₂ methanation over a metal foam structured catalyst by electric internal heating. Chemical Communications, 2020, 56, 205-208.	4.1	42
32	Tuning chemical environment and synergistic relay reaction to promote higher alcohols synthesis via syngas conversion. Applied Catalysis B: Environmental, 2021, 285, 119840.	20.2	41
33	Fe binuclear sites convert methane to acetic acid with ultrahigh selectivity. CheM, 2022, 8, 1658-1672.	11.7	40
34	Effect of In2O3 particle size on CO2 hydrogenation to lower olefins over bifunctional catalysts. Chinese Journal of Catalysis, 2021, 42, 2038-2048.	14.0	39
35	Cu single-atoms embedded in porous carbon nitride for selective oxidation of methane to oxygenates. Chemical Communications, 2020, 56, 14677-14680.	4.1	37
36	Ru single atoms for efficient chemoselective hydrogenation of nitrobenzene to azoxybenzene. Green Chemistry, 2021, 23, 4753-4761.	9.0	35

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37	Effect of Sodium on the Structureâ€Performance Relationship of Co/<scp>SiO₂</scp> for Fischerâ€Tropsch Synthesis. Chinese Journal of Chemistry, 2017, 35, 918-926.	4.9	31
38	Effect of Reaction Pressures on Structureâ€“Performance of Co₂C-Based Catalyst for Syngas Conversion. Industrial & Engineering Chemistry Research, 2018, 57, 15647-15653.	3.7	31
39	Characterization of CoMn catalyst by in situ X-ray absorption spectroscopy and wavelet analysis for Fischerâ€“Tropsch to olefins reaction. Journal of Energy Chemistry, 2019, 32, 118-123.	12.9	31
40	Gammaâ€Ray Irradiation to Accelerate Crystallization of Mesoporous Zeolites. Angewandte Chemie - International Edition, 2020, 59, 11325-11329.	13.8	30
41	Control of Co0/Co2C dual active sites for higher alcohols synthesis from syngas. Applied Catalysis A: General, 2020, 602, 117704.	4.3	29
42	Effect of the support on cobalt carbide catalysts for sustainable production of olefins from syngas. Chinese Journal of Catalysis, 2018, 39, 1869-1880.	14.0	28
43	Designing silica-coated CoMn-based catalyst for Fischer-Tropsch synthesis to olefins with low CO2 emission. Applied Catalysis B: Environmental, 2021, 299, 120683.	20.2	27
44	Tandem Catalysis for Selective Oxidation of Methane to Oxygenates Using Oxygen over PdCu/Zeolite. Angewandte Chemie - International Edition, 2022, 61, .	13.8	27
45	ZIF-67-derived Co 3 O 4 micro/nano composite structures for efficient photocatalytic degradation. Materials Letters, 2018, 222, 92-95.	2.6	25
46	Carbon-encapsulated highly dispersed FeMn nanoparticles for Fischerâ€“Tropsch synthesis to light olefins. New Journal of Chemistry, 2018, 42, 2413-2421.	2.8	24
47	Elucidation of reaction network of higher alcohol synthesis over modified FT catalysts by probe molecule experiments. Catalysis Science and Technology, 2015, 5, 4224-4232.	4.1	23
48	Highly selective production of olefins from syngas with modified ASF distribution model. Applied Catalysis A: General, 2018, 563, 146-153.	4.3	23
49	Tuning the Facet Proportion of Co₂C Nanoprisms for Fischerâ€Tropsch Synthesis to Olefins. ChemCatChem, 2020, 12, 1630-1638.	3.7	23
50	Fischer-Tropsch to olefins over CoMn-based catalysts: Effect of preparation methods. Applied Catalysis A: General, 2020, 592, 117414.	4.3	22
51	Hydrofunctionalization of olefins to value-added chemicals <i>via</i> photocatalytic coupling. Green Chemistry, 2018, 20, 3450-3456.	9.0	21
52	Effects of alkali metal promoters on the structureâ€“performance relationship of CoMn catalysts for Fischerâ€“Tropsch synthesis. Catalysis Science and Technology, 2020, 10, 1816-1826.	4.1	20
53	Direct Conversion of Syngas to Higher Alcohols over Multifunctional Catalyst: The Role of Copper-Based Component and Catalytic Mechanism. Journal of Physical Chemistry C, 2021, 125, 6137-6146.	3.1	20
54	Process intensification of honeycomb fractal micro-reactor for the direct production of lower olefins from syngas. Chemical Engineering Journal, 2018, 351, 12-21.	12.7	19

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55	IrFe/ZSM-5 Synergistic Catalyst for Selective Oxidation of Methane to Formic Acid. Energy & Fuels, 2021, 35, 4418-4427.	5.1	19
56	A facile solvent-free route to synthesize ordered mesoporous carbons. RSC Advances, 2014, 4, 32113-32116.	3.6	18
57	<i>In situ</i> XAFS study on the formation process of cobalt carbide by Fischerâ€“Tropsch reaction. Physical Chemistry Chemical Physics, 2019, 21, 10791-10797.	2.8	18
58	Highly Selective Photocatalytic Aerobic Oxidation of Methane to Oxygenates with Water over Wâ€doped TiO₂. ChemSusChem, 2022, 15, .	6.8	18
59	Syngas Conversion to Aromatics over the Co₂C-Based Catalyst and HZSM-5 via a Tandem System. Industrial & Engineering Chemistry Research, 2020, 59, 4419-4427.	3.7	17
60	For Better Industrial Cu/ZnO/Al2O3 Methanol Synthesis Catalyst: A Compositional Study. Catalysis Letters, 2017, 147, 1581-1591.	2.6	16
61	Catalytic cycle of the partial oxidation of methane to methanol over Cu-ZSM-5 revealed using DFT calculations. Physical Chemistry Chemical Physics, 2021, 23, 4963-4974.	2.8	16
62	Bifunctional catalysts with versatile zeolites enable unprecedented para-xylene productivity for syngas conversion under mild conditions. Chem Catalysis, 2022, 2, 779-796.	6.1	16
63	Photocatalytic Coupling of Methanol and Formaldehyde into Ethylene Glycol with High Atomic Efficiency. Catalysis Letters, 2018, 148, 2274-2282.	2.6	14
64	Single-atom Ru catalyst for selective synthesis of 3-pentanone <i>via</i> ethylene hydroformylation. Green Chemistry, 2021, 23, 9038-9047.	9.0	14
65	Fabrication of Highly Stable SiO2 Encapsulated Multiple CuFe Nanoparticles for Higher Alcohols Synthesis via CO Hydrogenation. Catalysis Letters, 2018, 148, 1080-1092.	2.6	13
66	Chemo- and regioselective hydroformylation of alkenes with CO₂/H₂ over a bifunctional catalyst. Green Chemistry, 2021, 23, 8040-8046.	9.0	13
67	Rh single atoms embedded in CeO2 nanostructure boost CO2 hydrogenation to HCOOH. Chinese Journal of Chemical Engineering, 2022, 43, 62-69.	3.5	13
68	Theoretical Insights into Morphologies of Alkali-Promoted Cobalt Carbide Catalysts for Fischerâ€“Tropsch Synthesis. Journal of Physical Chemistry C, 2021, 125, 6061-6072.	3.1	12
69	Gammaâ€Ray Irradiation to Accelerate Crystallization of Mesoporous Zeolites. Angewandte Chemie, 2020, 132, 11421-11425.	2.0	11
70	Direct production of olefins <i>via</i> syngas conversion over Co₂C-based catalyst in slurry bed reactor. RSC Advances, 2019, 9, 4131-4139.	3.6	10
71	One-pot Synthesis of Acetals by Tandem Hydroformylation-acetalization of Olefins Using Heterogeneous Supported Catalysts. Catalysis Letters, 2021, 151, 2638-2646.	2.6	9
72	Fischer-Tropsch to olefins over Co2C-based catalysts: Effect of thermal pretreatment of SiO2 support. Applied Catalysis A: General, 2021, 623, 118283.	4.3	9

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73	Direct synthesis of higher alcohols from syngas over modified Mo₂C catalysts under mild reaction conditions. Catalysis Science and Technology, 2022, 12, 1697-1708.	4.1	9
74	Toward a Full One-Pass Conversion for the Fischerâ€“Tropsch Synthesis over a Highly Selective Cobalt Catalyst. Industrial & Engineering Chemistry Research, 2020, 59, 8195-8201.	3.7	8
75	Carbon-encapsulated metallic Co nanoparticles for Fischer-Tropsch to olefins with low CO2 selectivity. Applied Catalysis B: Environmental, 2022, 316, 121700.	20.2	8
76	Effects of alkaline-earth metals on CoMn-based catalysts for the Fischerâ€“Tropsch synthesis to olefins. Catalysis Science and Technology, 2022, 12, 2677-2687.	4.1	6
77	Size effect of CoxMn1-xO precursor for Fischer-Tropsch to olefins over Co2C-based catalysts. Catalysis Science and Technology, 0, , .	4.1	5
78	Enhanced Carrier Spatial Separation and Interfacial Transfer for Photocatalytic Cyanation of Olefins. ACS Sustainable Chemistry and Engineering, 2022, 10, 831-837.	6.7	5
79	Factors Associated with Accurate Analysis of Fischerâ€“Tropsch Products. Catalysis Letters, 2017, 147, 704-715.	2.6	4
80	Hydrofunctionalization of Olefins to Higher Aliphatic Alcohols via Visible-Light Photocatalytic Coupling. Catalysis Letters, 2019, 149, 1651-1659.	2.6	3
81	Tuning of active sites in M/TiO2 for photocatalytic cyanation of olefins with high regioselectivity. Applied Catalysis A: General, 2020, 604, 117787.	4.3	3
82	Atomically dispersed Rh on hydroxyapatite as an effective catalyst for tandem hydroaminomethylation of olefins. Molecular Catalysis, 2021, 509, 111671.	2.0	3
83	Effects of Noble Metals on a Co₂C-Based Supported Catalyst for Fischerâ€“Tropsch to Olefins. Industrial & Engineering Chemistry Research, 2022, 61, 4824-4831.	3.7	3
84	Tandem Catalysis for Selective Oxidation of Methane to Oxygenates Using Oxygen over PdCu/Zeolite. Angewandte Chemie, 2022, 134, .	2.0	2
85	Gold nanoparticles selectively convert CH4 to oxygenates by using O2. Chem Catalysis, 2022, 2, 436-438.	6.1	1
86	Structure-Performance Evolution of Cobalt-Ammonia Activated Carbon Catalyst for Ethylene Oligomerization. Catalysis Letters, 0, , 1.	2.6	0