Xiaohao Liu

List of Publications by Year
in descending order

71 papers	3,402 citations	136740 32 h-index	149479 56 g-index
71 all docs	71 docs citations	71 times ranked	3062 citing authors

#	Article	IF	Citations
1	Insights into the Influence of CeO₂Crystal Facet on CO₂Hydrogenation to Methanol over Pd/CeO₂Catalysts. ACS Catalysis, 2020, 10, 11493-11509.	5.5	391
2	Turning Au Nanoclusters Catalytically Active for Visible-Light-Driven CO₂ Reduction through Bridging Ligands. Journal of the American Chemical Society, 2018, 140, 16514-16520.	6.6	208
3	Oxygen Vacancyâ€"Rich Inâ€Doped CoO/CoP Heterostructure as an Effective Air Cathode for Rechargeable Znâ€"Air Batteries. Small, 2019, 15, e1904210.	5.2	142
4	Hydrogenation of CO₂ into hydrocarbons: enhanced catalytic activity over Fe-based Fischerâ€"Tropsch catalysts. Catalysis Science and Technology, 2018, 8, 4097-4107.	2.1	123
5	Unravelling the New Roles of Na and Mn Promoter in CO₂ Hydrogenation over Fe₃O₄â€Based Catalysts for Enhanced Selectivity to Light Î±â€Olefins. ChemCatChem, 2018, 10, 4718-4732.	1.8	122
6	Selective production of aromatics from CO₂. Catalysis Science and Technology, 2019, 9, 593-610.	2.1	120
7	Synthesis of {111} Facet-Exposed MgO with Surface Oxygen Vacancies for Reactive Oxygen Species Generation in the Dark. ACS Applied Materials & Interfaces, 2017, 9, 12687-12693.	4.0	115
8	Insights into the influence of support and potassium or sulfur promoter on iron-based Fischerâ€"Tropsch synthesis: understanding the control of catalytic activity, selectivity to lower olefins, and catalyst deactivation. Catalysis Science and Technology, 2017, 7, 1245-1265.	2.1	98
9	Mechanistic Study of Selective Catalytic Reduction of NO with NH₃ on W-Doped CeO₂ Catalysts: Unraveling the Catalytic Cycle and the Role of Oxygen Vacancy. Journal of Physical Chemistry C, 2016, 120, 2271-2283.	1.5	97
10	CeO2 supported Pd dimers boosting CO2 hydrogenation to ethanol. Applied Catalysis B: Environmental, 2021, 291, 120122.	10.8	88
11	Interfacial Effects of CeO₂-Supported Pd Nanorod in Catalytic CO Oxidation: A Theoretical Study. Journal of Physical Chemistry C, 2015, 119, 12923-12934.	1.5	82
12	Conversion of syngas toward aromatics over hybrid Fe-based Fischer-Tropsch catalysts and HZSM-5 zeolites. Applied Catalysis A: General, 2018, 552, 168-183.	2.2	82
13	Ironâ€Based Fischerâ€"Tropsch Synthesis for the Efficient Conversion of Carbon Dioxide into Isoparaffins. ChemCatChem, 2016, 8, 1303-1307.	1.8	80
14	Unraveling Reactivity Descriptors and Structure Sensitivity in Low-Temperature NH₃-SCR Reaction over CeTiO<i>_x</i> Catalysts: A Combined Computational and Experimental Study. ACS Catalysis, 2021, 11, 7613-7636.	5.5	75
15	Insight into the Potassium Poisoning Effect for Selective Catalytic Reduction of NO_{<i>x</i>} with NH₃ over Fe/Beta. ACS Catalysis, 2021, 11, 14727-14739.	5.5	69
16	Synthesis of higher alcohols by Fischerâ€"Tropsch synthesis over alkali metal-modified cobalt catalysts. Applied Catalysis A: General, 2013, 458, 145-154.	2.2	67
17	Particle size effects in the selective hydrogenation of cinnamaldehyde over supported palladium catalysts. RSC Advances, 2016, 6, 75541-75551.	1.7	66
18	Insight into the Intrinsic Active Site for Selective Production of Light Olefins in Cobalt-Catalyzed Fischerâ€"Tropsch Synthesis. ACS Catalysis, 2019, 9, 7073-7089.	5.5	60

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19	Hydroformylation of olefins by Au/Co3O4 catalysts. Applied Catalysis B: Environmental, 2009, 92, 411-421.	10.8	59
20	Two-dimensional graphene-directed formation of cylindrical iron carbide nanocapsules for Fischerâ€“Tropsch synthesis. Catalysis Science and Technology, 2017, 7, 4609-4621.	2.1	56
21	Carbonate-mediated Marsâ€“van Krevelen mechanism for CO oxidation on cobalt-doped ceria catalysts: facet-dependence and coordination-dependence. Physical Chemistry Chemical Physics, 2018, 20, 16045-16059.	1.3	54
22	Investigation of the highly tunable selectivity to linear Î±-olefins in Fischerâ€“Tropsch synthesis over silica-supported Co and CoMn catalysts by carburizationâ€“reduction pretreatment. Catalysis Science and Technology, 2017, 7, 4736-4755.	2.1	53
23	Exploring pretreatment effects in Co/SiO 2 Fischer-Tropsch catalysts: Different oxidizing gases applied to oxidation-reduction process. Applied Catalysis B: Environmental, 2017, 210, 1-13.	10.8	51
24	Sodium-Mediated Bimetallic Feâ€“Ni Catalyst Boosts Stable and Selective Production of Light Aromatics over HZSM-5 Zeolite. ACS Catalysis, 2021, 11, 3553-3574.	5.5	50
25	Particle-Size-Dependent Methane Selectivity Evolution in Cobalt-Based Fischerâ€“Tropsch Synthesis. ACS Catalysis, 2020, 10, 2799-2816.	5.5	46
26	CO₂ formation mechanism in Fischerâ€“Tropsch synthesis over iron-based catalysts: a combined experimental and theoretical study. Catalysis Science and Technology, 2018, 8, 5288-5301.	2.1	45
27	Probing cobalt localization on HZSM-5 for efficient methane dehydroaromatization catalysts. Journal of Catalysis, 2020, 387, 102-118.	3.1	43
28	Computational Design of a CeO₂-Supported Pd-Based Bimetallic Nanorod for CO Oxidation. Journal of Physical Chemistry C, 2016, 120, 5557-5564.	1.5	42
29	Solvent-free rapid synthesis of porous CeWO_x by a mechanochemical self-assembly strategy for the abatement of NO_x. Journal of Materials Chemistry A, 2020, 8, 6717-6731.	5.2	42
30	Direct production of aromatics from syngas over a hybrid FeMn Fischerâ€“Tropsch catalyst and HZSM-5 zeolite: local environment effect and mechanism-directed tuning of the aromatic selectivity. Catalysis Science and Technology, 2019, 9, 3933-3946.	2.1	41
31	Effects of solvent on Fischerâ€“Tropsch synthesis. Applied Catalysis A: General, 2006, 303, 251-257.	2.2	40
32	Supported Fe/MnO_x catalyst with Ag doping for remarkably enhanced catalytic activity in Fischerâ€“Tropsch synthesis. Catalysis Science and Technology, 2018, 8, 1953-1970.	2.1	38
33	Hydrogenation of CO2 to methanol over Cu/ZnCr catalyst. Fuel, 2019, 256, 115975.	3.4	34
34	Dependence of copper particle size and interface on methanol and CO formation in CO₂ hydrogenation over Cu@ZnO catalysts. Catalysis Science and Technology, 2022, 12, 551-564.	2.1	33
35	Highly active Co/SiC catalysts with controllable dispersion and reducibility for Fischerâ€“Tropsch synthesis. Fuel, 2013, 112, 483-488.	3.4	32
36	Assessing the formation of cobalt carbide and its catalytic performance under realistic reaction conditions and tuning product selectivity in a cobalt-based FTS reaction. Catalysis Science and Technology, 2019, 9, 3238-3258.	2.1	32

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37	Supercritical phase process for direct synthesis of middle iso-paraffins from modified Fischerâ€"Tropsch reaction. Catalysis Today, 2005, 106, 154-160.	2.2	31
38	Experimental Investigation on the Two-Sided Effect of Acidic HZSM-5 on the Catalytic Performance of Composite Fe-Based Fischerâ€"Tropsch Catalysts and HZSM-5 Zeolite in the Production of Aromatics from CO₂/H₂. Industrial & Engineering Chemistry Research, 2020, 59, 8581-8591.	1.8	31
39	Anti-ASF distribution in Fischer-Tropsch synthesis over unsupported cobalt catalysts in a batch slurry phase reactor. Catalysis Today, 2011, 175, 494-503.	2.2	29
40	Selective mild oxidation of methane to methanol or formic acid on Feâ€"MOR catalysts. Catalysis Science and Technology, 2019, 9, 6946-6956.	2.1	29
41	Suppressing Câ€"C Bond Dissociation for Efficient Ethane Dehydrogenation over the Isolated Co(II) Sites in SAPO-34. ACS Catalysis, 2021, 11, 13001-13019.	5.5	29
42	CH₄ conversion over Ni/HZSM-5 catalyst in the absence of oxygen: decomposition or dehydroaromatization?. Chemical Communications, 2020, 56, 4396-4399.	2.2	28
43	Coupling the Atomically Dispersed Feâ€N₃ Sites with Subâ€5Ânm Pd Nanocrystals Confined in Nâ€Doped Carbon Nanobelts to Boost the Oxygen Reduction for Microbial Fuel Cells. Advanced Functional Materials, 2022, 32, 2107683.	7.8	24
44	Investigation on converting 1-butene and ethylene into propene <i>via</i> metathesis reaction over W-based catalysts. RSC Advances, 2018, 8, 8372-8384.	1.7	21
45	Investigation of the deactivation behavior of Co catalysts in Fischerâ€"Tropsch synthesis using encapsulated Co nanoparticles with controlled SiO2 shell layer thickness. Catalysis Science and Technology, 2020, 10, 1182-1192.	2.1	21
46	Controllable Fischerâ€"Tropsch Synthesis by Inâ€…Situâ€Produced 1â€Olefins. ChemCatChem, 2010, 2, 1569-1572.	1.8	20
47	Insight into the active site and reaction mechanism for selective oxidation of methane to methanol using H₂O₂ on a Rh₁/ZrO₂ catalyst. New Journal of Chemistry, 2020, 44, 1632-1639.	1.4	20
48	Effective control of carbon number distribution during Fischerâ€"Tropsch synthesis over supported cobalt catalyst. Catalysis Communications, 2007, 8, 1329-1335.	1.6	19
49	Elucidation of reaction network and effective control of carbon number distribution in the three phase Fischerâ€"Tropsch synthesis. Applied Catalysis A: General, 2007, 333, 211-218.	2.2	19
50	Identifying the crucial role of water and chloride for efficient mild oxidation of methane to methanol over a [Cu2(Î¼-O)]2+-ZSM-5 catalyst. Journal of Catalysis, 2022, 405, 1-14.	3.1	19
51	Highly Potent, Selective, Biostable, and Cell-Permeable Cyclic <scp>d</scp>-Peptide for Dual-Targeting Therapy of Lung Cancer. Journal of the American Chemical Society, 2022, 144, 7117-7128.	6.6	19
52	Selective Synthesis of Higher Linear Î±-olefins over Cobalt Fischerâ€"Tropsch Catalyst. Catalysis Letters, 2006, 108, 11-13.	1.4	17
53	A Facile Fabrication of Supported Ni/SiO2 Catalysts for Dry Reforming of Methane with Remarkably Enhanced Catalytic Performance. Catalysts, 2019, 9, 183.	1.6	17
54	Fischer-Tropsch synthesis to lower Î±-olefins over cobalt-based catalysts: Dependence of the promotional effect of promoter on supports. Catalysis Today, 2021, 369, 158-166.	2.2	16

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55	Distinguishing external and internal coke depositions on micron-sized HZSM-5 <i>via</i> catalyst-assisted temperature-programmed oxidation. New Journal of Chemistry, 2019, 43, 13938-13946.	1.4	14
56	Catalytic Activity for CO₂ Hydrogenation is Linearly Dependent on Generated Oxygen Vacancies over CeO₂â€Supported Pd Catalysts. ChemCatChem, 2022, 14, .	1.8	13
57	Glutathione-protected gold nanocluster decorated cadmium sulfide with enhanced photostability and photocatalytic activity. Journal of Colloid and Interface Science, 2018, 530, 120-126.	5.0	12
58	Tuning the Lewis acidity of ZrO₂ for efficient conversion of CH₄ and CO₂ into acetic acid. New Journal of Chemistry, 2021, 45, 8978-8985.	1.4	9
59	Gold nanoparticles assisted formation of cobalt species for intermolecular hydroaminomethylation and intramolecular cyclocarbonylation of olefins. Catalysis Science and Technology, 2013, 3, 3000.	2.1	8
60	Effect of Bed Height on the Performance of a Fixed Mo/HZSMâ€5 Bed in Direct Aromatization of Methane. Chemical Engineering and Technology, 2016, 39, 2059-2065.	0.9	8
61	Unravelling the structure-performance relationship over iron-based Fischer-Tropsch synthesis by depositing the iron carbonyl in syngas on SiO2 in a fixed-bed reactor. Applied Catalysis A: General, 2019, 572, 197-209.	2.2	8
62	A high growth rate process of ALD CeOx with amidinato-cerium [(N-iPr-AMD)3Ce] and O3 as precursors. Journal of Materials Science, 2020, 55, 5378-5389.	1.7	7
63	Ultraâ€stable Molecular Interface SiW₁₂O_x/TiO₂ Catalyst Derived from Kegginâ€type Polyoxometalates for Photocatalytic Conversion of Methane to Oxygenates. ChemCatChem, 2022, 14, .	1.8	7
64	Pore-Confined and Diffusion-Dependent Olefin Catalytic Cracking for the Production of Propylene over SAPO Zeolites. Industrial & Engineering Chemistry Research, 2022, 61, 7760-7776.	1.8	7
65	Effect of potassium on GO-modified large Fe3O4 microspheres for the production of Î±-olefins. Journal of Fuel Chemistry and Technology, 2021, 49, 933-944.	0.9	4
66	Synthesis of a rutheniumâ€"graphene quantum dotâ€"graphene hybrid as a promising single-atom catalyst for electrochemical nitrogen reduction with ultrahigh yield rate and selectivity. Journal of Materials Chemistry A, 2021, 9, 24582-24589.	5.2	4
67	Stable co-production of olefins and aromatics from ethane over Co²⁺-exchanged HZSM-5 zeolite. Catalysis Science and Technology, 2022, 12, 3716-3726.	2.1	4
68	Insights into Fe Species Structureâ€Performance Relationship for Direct Methane Conversion toward Oxygenates over Feâ€MOR Catalysts. ChemCatChem, 2022, 14, .	1.8	4
69	Remarkably enhanced performance of the metathesis reaction of ethylene and 1-butene to propene using one-step prepared W-MCM-41 catalysts. RSC Advances, 2019, 9, 40618-40627.	1.7	3
70	Selective synthesis of the coreâ€"shell structured catalyst Ï‡-Fe₅C₂ surrounded by nanosized Fe₃O₄ for the conversion of syngas to liquid fuels. Catalysis Science and Technology, 2022, 12, 1978-1985.	2.1	3
71	Structural evolution of large Fe₃O₄ microspheres on graphene oxide for efficient conversion of syngas into Î±-olefins. New Journal of Chemistry, 2020, 44, 4987-4991.	1.4	2