Minghui Zhu

List of Publications by Year
in descending order

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81 papers	4,565 citations	100601 38 h-index	120465 65 g-index
82 all docs	82 docs citations	82 times ranked	4158 citing authors

#	ARTICLE	IF	CITATIONS
1	Phthalocyanine-derived catalysts decorated by metallic nanoclusters for enhanced CO2 electroreduction. Green Energy and Environment, 2023, 8, 444-451.	4.7	7
2	Revealing the dependence of CO₂ activation on hydrogen dissociation ability over supported nickel catalysts. AICHE Journal, 2022, 68, e17458.	1.8	9
3	Selective methane electrosynthesis enabled by a hydrophobic carbon coated copper coreâ€“shell architecture. Energy and Environmental Science, 2022, 15, 234-243.	15.6	51
4	Pyridine-grafted nitrogen-doped carbon nanotubes achieving efficient electroreduction of CO₂to CO within a wide electrochemical window. Journal of Materials Chemistry A, 2022, 10, 1852-1860.	5.2	12
5	Induced activation of the commercial Cu/ZnO/Al2O3 catalyst for the steam reforming of methanol. Nature Catalysis, 2022, 5, 99-108.	16.1	155
6	Tuning the Metal Electronic Structure of Anchored Cobalt Phthalocyanine via Dualâ€Regulator for Efficient CO₂ Electroreduction and Znâ€“CO₂ Batteries. Advanced Functional Materials, 2022, 32, .	7.8	43
7	Unravelling the metalâ€“support interactions in Ï‡-Fe₅C₂/MgO catalysts for olefin synthesis directly from syngas. Catalysis Science and Technology, 2022, 12, 762-772.	2.1	4
8	Electrochemical conversion of CO₂ to syngas with a stable H₂/CO ratio in a wide potential range over ligand-engineered metalâ€“organic frameworks. Journal of Materials Chemistry A, 2022, 10, 9954-9959.	5.2	5
9	Nature and Reactivity of Oxygen Species on/in Silver Catalysts during Ethylene Oxidation. ACS Catalysis, 2022, 12, 4375-4381.	5.5	17
10	Structural Buffer Engineering on Metal Oxide for Longâ€Term Stable Seawater Splitting. Advanced Functional Materials, 2022, 32, .	7.8	64
11	Reconstructed covalent organic frameworks. Nature, 2022, 604, 72-79.	13.7	190
12	Operando Highâ€Valence Crâ€Modified NiFe Hydroxides for Water Oxidation. Small, 2022, 18, e2200303.	5.2	44
13	In Operando Identification of In Situ Formed Metalloid Zinc^{Î´+} Active Sites for Highly Efficient Electrocatalyzed Carbon Dioxide Reduction. Angewandte Chemie - International Edition, 2022, 61, .	7.2	25
14	Controlling the Reconstruction of Ni/CeO2 Catalyst during Reduction for Enhanced CO Methanation. Engineering, 2022, 14, 94-99.	3.2	9
15	Effect of MnO₂ Polymorphsâ€™ Structure on Low-Temperature Catalytic Oxidation: Crystalline Controlled Oxygen Vacancy Formation. ACS Applied Materials & Interfaces, 2022, 14, 18525-18538.	4.0	27
16	Syngas to olefins with low CO2 formation by tuning the structure of FeCx-MgO-Al2O3 catalysts. Chemical Engineering Journal, 2022, 450, 137167.	6.6	5
17	A Review on the Waterâ€Gas Shift Reaction over Nickelâ€Based Catalysts. ChemCatChem, 2022, 14, .	1.8	5
18	Combined <i>In Situ</i> Diffuse Reflectance Infrared Fourier Transform Spectroscopy and Kinetic Studies on CO₂ Methanation Reaction over Ni/Al₂O₃. Industrial & Engineering Chemistry Research, 2022, 61, 9678-9685.	1.8	7

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19	Recent Advances in Electrochemical CO₂ Reduction on Indiumâ€Based Catalysts. ChemCatChem, 2021, 13, 514-531.	1.8	50
20	Vacancy engineering of the nickel-based catalysts for enhanced CO2 methanation. Applied Catalysis B: Environmental, 2021, 282, 119561.	10.8	100
21	Tracking structural evolution: <i>operando</i> regenerative CeOx/Bi interface structure for high-performance CO2 electroreduction. National Science Review, 2021, 8, nwaa187.	4.6	50
22	Curvature-induced electronic tuning of molecular catalysts for CO₂ reduction. Catalysis Science and Technology, 2021, 11, 2491-2496.	2.1	11
23	Unraveling the Role of Zinc on Bimetallic Fe₅C₂â€“ZnO Catalysts for Highly Selective Carbon Dioxide Hydrogenation to High Carbon Î±-Olefins. ACS Catalysis, 2021, 11, 2121-2133.	5.5	72
24	Revealing the Effect of Sodium on Iron-Based Catalysts for CO₂ Hydrogenation: Insights from Calculation and Experiment. Journal of Physical Chemistry C, 2021, 125, 7637-7646.	1.5	20
25	Elucidating the reactivity and nature of active sites for tin phthalocyanine during CO₂ reduction. , 2021, 11, 1191-1197.		4
26	Tunable Carbon Dioxide Activation Pathway over Iron Oxide Catalysts: Effects of Potassium. Industrial & Engineering Chemistry Research, 2021, 60, 8705-8713.	1.8	18
27	Synergistic Effect of Atomically Dispersed Niâ€“Zn Pair Sites for Enhanced CO₂ Electroreduction. Advanced Materials, 2021, 33, e2102212.	11.1	155
28	Formation and influence of surface hydroxyls on product selectivity during CO2 hydrogenation by Ni/SiO2 catalysts. Journal of Catalysis, 2021, 400, 228-233.	3.1	27
29	Structureâ€“Activity Relationships of Copper- and Potassium-Modified Iron Oxide Catalysts during Reverse Waterâ€“Gas Shift Reaction. ACS Catalysis, 2021, 11, 12609-12619.	5.5	48
30	Strong Metalâ€“Support Interactions between Nickel and Iron Oxide during CO₂ Hydrogenation. ACS Catalysis, 2021, 11, 11966-11972.	5.5	36
31	Superfast and Waterâ€Insensitive Polymerization on Î±â€Amino Acid <i>N</i>â€Carboxyanhydrides to Prepare Polypeptides Using Tetraalkylammonium Carboxylate as the Initiator. Angewandte Chemie, 2021, 133, 26267-26275.	1.6	5
32	Ni-based catalysts derived from Ni-Zr-Al ternary hydrotalcites show outstanding catalytic properties for low-temperature CO2 methanation. Applied Catalysis B: Environmental, 2021, 293, 120218.	10.8	62
33	Superfast and Waterâ€Insensitive Polymerization on Î±â€Amino Acid <i>N</i>â€Carboxyanhydrides to Prepare Polypeptides Using Tetraalkylammonium Carboxylate as the Initiator. Angewandte Chemie - International Edition, 2021, 60, 26063-26071.	7.2	33
34	Effect of micropores on the structure and CO₂methanation performance of supported Ni/SiO₂catalyst. , 2021, 11, 1213-1221.		3
35	Dynamic structure of highly disordered manganese oxide catalysts for low-temperature CO oxidation. Journal of Catalysis, 2021, 401, 115-128.	3.1	31
36	Highly Active and Selective Multicomponent Feâ€“Cu/CeO₂â€“Al₂O₃ Catalysts for CO₂ Upgrading via RWGS: Impact of Fe/Cu Ratio. ACS Sustainable Chemistry and Engineering, 2021, 9, 12155-12166.	3.2	30

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37	Uncovering the electronic effects of zinc on the structure of Fe5C2-ZnO catalysts for CO2 hydrogenation to linear Î±-olefins. Applied Catalysis B: Environmental, 2021, 295, 120287.	10.8	44
38	Chemical and structural properties of Na decorated Fe5C2-ZnO catalysts during hydrogenation of CO2 to linear Î±-olefins. Applied Catalysis B: Environmental, 2021, 298, 120567.	10.8	35
39	Probing the role of surface hydroxyls for Bi, Sn and In catalysts during CO2 Reduction. Applied Catalysis B: Environmental, 2021, 298, 120581.	10.8	54
40	Building a stable cationic molecule/electrode interface for highly efficient and durable CO₂ reduction at an industrially relevant current. Energy and Environmental Science, 2021, 14, 483-492.	15.6	101
41	Ternary Feâ€"Znâ€"Al Spinel Catalyst for CO₂ Hydrogenation to Linear Î±-Olefins: Synergy Effects between Al and Zn. ACS Sustainable Chemistry and Engineering, 2021, 9, 13818-13830.	3.2	20
42	Activation and deactivation of the commercialâ€type CuOâ€"Cr₂O₃â€"Fe₂O₃ high temperature shift catalyst. AIChE Journal, 2020, 66, e16846.	1.8	14
43	Resolving CO2 activation and hydrogenation pathways over iron carbides from DFT investigation. Journal of CO2 Utilization, 2020, 38, 10-15.	3.3	41
44	Promotional effect of Mn-doping on the structure and performance of spinel ferrite microspheres for CO hydrogenation. Journal of Catalysis, 2020, 381, 150-162.	3.1	35
45	Structureâ€"Activity Relationship of the Polymerized Cobalt Phthalocyanines for Electrocatalytic Carbon Dioxide Reduction. Journal of Physical Chemistry C, 2020, 124, 16501-16507.	1.5	16
46	Essential Role of the Support for Nickel-Based CO₂ Methanation Catalysts. ACS Catalysis, 2020, 10, 14581-14591.	5.5	165
47	Nature of Reactive Oxygen Intermediates on Copper-Promoted Ironâ€"Chromium Oxide Catalysts during CO₂ Activation. ACS Catalysis, 2020, 10, 7857-7863.	5.5	44
48	Probing the surface of promoted CuO-Cr2O3-Fe2O3 catalysts during CO2 activation. Applied Catalysis B: Environmental, 2020, 271, 118943.	10.8	24
49	Unraveling Highly Tunable Selectivity in CO₂ Hydrogenation over Bimetallic In-Zr Oxide Catalysts. ACS Catalysis, 2019, 9, 8785-8797.	5.5	139
50	Structureâ€Tunable Copperâ€"Indium Catalysts for Highly Selective CO₂ Electroreduction to CO or HCOOH. ChemSusChem, 2019, 12, 3955-3959.	3.6	55
51	Fundamental nanoscale surface strategies for robustly controlling heterogeneous nucleation of calcium carbonate. Journal of Materials Chemistry A, 2019, 7, 17242-17247.	5.2	23
52	The study of structure-performance relationship of iron catalyst during a full life cycle for CO2 hydrogenation. Journal of Catalysis, 2019, 378, 51-62.	3.1	60
53	Inductive and electrostatic effects on cobalt porphyrins for heterogeneous electrocatalytic carbon dioxide reduction. Catalysis Science and Technology, 2019, 9, 974-980.	2.1	56
54	Covalently Grafting Cobalt Porphyrin onto Carbon Nanotubes for Efficient CO₂ Electroreduction. Angewandte Chemie, 2019, 131, 6667-6671.	1.6	26

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55	Covalently Grafting Cobalt Porphyrin onto Carbon Nanotubes for Efficient CO₂ Electroreduction. Angewandte Chemie - International Edition, 2019, 58, 6595-6599.	7.2	190
56	Syngas production and trace element emissions from microwave-assisted chemical looping gasification of heavy metal hyperaccumulators. Science of the Total Environment, 2019, 659, 612-620.	3.9	25
57	Strong Metalâ€“Support Interactions between Copper and Iron Oxide during the Highâ€Temperature Waterâ€Gas Shift Reaction. Angewandte Chemie - International Edition, 2019, 58, 9083-9087.	7.2	82
58	Strong Metalâ€“Support Interactions between Copper and Iron Oxide during the Highâ€Temperature Waterâ€Gas Shift Reaction. Angewandte Chemie, 2019, 131, 9181-9185.	1.6	22
59	Elucidation of the Reaction Mechanism for High-Temperature Water Gas Shift over an Industrial-Type Copperâ€“Chromiumâ€“Iron Oxide Catalyst. Journal of the American Chemical Society, 2019, 141, 7990-7999.	6.6	60
60	Cobalt phthalocyanine coordinated to pyridine-functionalized carbon nanotubes with enhanced CO2 electroreduction. Applied Catalysis B: Environmental, 2019, 251, 112-118.	10.8	135
61	Electronic Tuning of Cobalt Porphyrins Immobilized on Nitrogen-Doped Graphene for CO₂ Reduction. ACS Applied Energy Materials, 2019, 2, 2435-2440.	2.5	34
62	Direct Electrochemical Carboxylation of Benzylic Câ€“N Bonds with Carbon Dioxide. ACS Catalysis, 2019, 9, 4699-4705.	5.5	98
63	Facile synthesis of polymerized cobalt phthalocyanines for highly efficient CO₂ reduction. Green Chemistry, 2019, 21, 6056-6061.	4.6	33
64	Molecular structure and sour gas surface chemistry of supported K2O/WO3/Al2O3 catalysts. Applied Catalysis B: Environmental, 2018, 232, 146-154.	10.8	19
65	Revealing structure-activity relationships in chromium free high temperature shift catalysts promoted by earth abundant elements. Applied Catalysis B: Environmental, 2018, 232, 205-212.	10.8	27
66	A perspective on chromium-Free iron oxide-based catalysts for high temperature water-gas shift reaction. Catalysis Today, 2018, 311, 2-7.	2.2	22
67	Formation of N2O greenhouse gas during SCR of NO with NH3 by supported vanadium oxide catalysts. Applied Catalysis B: Environmental, 2018, 224, 836-840.	10.8	72
68	Elucidating the Reactivity and Mechanism of CO₂ Electroreduction at Highly Dispersed Cobalt Phthalocyanine. ACS Energy Letters, 2018, 3, 1381-1386.	8.8	175
69	A decade+ of operando spectroscopy studies. Catalysis Today, 2017, 283, 27-53.	2.2	126
70	Nature of Active Sites and Surface Intermediates during SCR of NO with NH₃ by Supported V₂O₅â€“WO₃/TiO₂ Catalysts. Journal of the American Chemical Society, 2017, 139, 15624-15627.	6.6	266
71	Reaction Pathways and Kinetics for Selective Catalytic Reduction (SCR) of Acidic NO_{<i>x</i>} Emissions from Power Plants with NH₃. ACS Catalysis, 2017, 7, 8358-8361.	5.5	78
72	Resolving the Reaction Mechanism for H₂ Formation from High-Temperature Waterâ€“Gas Shift by Chromiumâ€“Iron Oxide Catalysts. ACS Catalysis, 2016, 6, 2827-2830.	5.5	48

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73	Influence of catalyst synthesis method on selective catalytic reduction (SCR) of NO by NH3 with V2O5-WO3/TiO2 catalysts. Applied Catalysis B: Environmental, 2016, 193, 141-150.	10.8	136
74	Promotion Mechanisms of Iron Oxide-Based High Temperature Waterâ€“Gas Shift Catalysts by Chromium and Copper. ACS Catalysis, 2016, 6, 4455-4464.	5.5	98
75	Dynamics of CrO₃â€“Fe₂O₃ Catalysts during the High-Temperature Water-Gas Shift Reaction: Molecular Structures and Reactivity. ACS Catalysis, 2016, 6, 4786-4798.	5.5	68
76	Iron-Based Catalysts for the High-Temperature Waterâ€“Gas Shift (HT-WGS) Reaction: A Review. ACS Catalysis, 2016, 6, 722-732.	5.5	267
77	Selective catalytic reduction of NO by NH3 with WO3-TiO2 catalysts: Influence of catalyst synthesis method. Applied Catalysis B: Environmental, 2016, 188, 123-133.	10.8	51
78	Determining Number of Active Sites and TOF for the High-Temperature Water Gas Shift Reaction by Iron Oxide-Based Catalysts. ACS Catalysis, 2016, 6, 1764-1767.	5.5	36
79	Synthesis, size reduction, and delithiation of carbonate-free nanocrystalline lithium nickel oxide. Journal of Materials Science, 2013, 48, 1740-1745.	1.7	8
80	Electroreduction of Carbon Dioxide by Heterogenized Cofacial Porphyrins. Transactions of Tianjin University, 0, , 1.	3.3	3
81	Operando Metalloid ZnÎ´+ Active Sites for Highly Efficient Carbon Dioxide Reduction Electrocatalysis. Angewandte Chemie, 0, , .	1.6	0