Weili Dai

List of Publications by Year
in descending order

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87 papers	5,200 citations	94381 37 h-index	88593 70 g-index
91 all docs	91 docs citations	91 times ranked	4839 citing authors

#	Article	IF	Citations
1	Tungsten Oxide Single Crystal Nanosheets for Enhanced Multichannel Solar Light Harvesting. Advanced Materials, 2015, 27, 1580-1586.	11.1	436
2	Improved Postsynthesis Strategy to Sn-Beta Zeolites as Lewis Acid Catalysts for the Ring-Opening Hydration of Epoxides. ACS Catalysis, 2014, 4, 2801-2810.	5.5	247
3	Solid-state nuclear magnetic resonance investigations of the nature, property, and activity of acid sites on solid catalysts. Solid State Nuclear Magnetic Resonance, 2011, 39, 116-141.	1.5	212
4	Mechanisms of the Deactivation of SAPO-34 Materials with Different Crystal Sizes Applied as MTO Catalysts. ACS Catalysis, 2013, 3, 588-596.	5.5	198
5	Understanding the Early Stages of the Methanol-to-Olefin Conversion on H-SAPO-34. ACS Catalysis, 2015, 5, 317-326.	5.5	193
6	Hydrodeoxygenation of lignin-derived phenolic compounds over bi-functional Ru/H-Beta under mild conditions. Fuel, 2015, 150, 175-183.	3.4	179
7	Gradient Hydrogen Migration Modulated with Self-Adapting S Vacancy in Copper-Doped ZnIn₂S₄ Nanosheet for Photocatalytic Hydrogen Evolution. ACS Nano, 2021, 15, 15238-15248.	7.3	173
8	Mesoporous Zr-Beta zeolites prepared by a post-synthetic strategy as a robust Lewis acid catalyst for the ring-opening aminolysis of epoxides. Green Chemistry, 2015, 17, 1744-1755.	4.6	169
9	Confinement in a Zeolite and Zeolite Catalysis. Accounts of Chemical Research, 2021, 54, 2894-2904.	7.6	159
10	Meso-Zr-Al-beta zeolite as a robust catalyst for cascade reactions in biomass valorization. Applied Catalysis B: Environmental, 2017, 205, 393-403.	10.8	152
11	Methanol-to-Olefin Conversion on Silicoaluminophosphate Catalysts: Effect of BrÃ¸nsted Acid Sites and Framework Structures. ACS Catalysis, 2011, 1, 292-299.	5.5	140
12	A procedure for the preparation of Ti-Beta zeolites for catalytic epoxidation with hydrogen peroxide. Green Chemistry, 2014, 16, 2281-2291.	4.6	136
13	Noble Metal Particles Confined in Zeolites: Synthesis, Characterization, and Applications. Advanced Science, 2019, 6, 1900299.	5.6	127
14	Selectivity Modulation of Encapsulated Palladium Nanoparticles by Zeolite Microenvironment for Biomass Catalytic Upgrading. ACS Catalysis, 2018, 8, 8578-8589.	5.5	114
15	Acetylene-Selective Hydrogenation Catalyzed by Cationic Nickel Confined in Zeolite. Journal of the American Chemical Society, 2019, 141, 9920-9927.	6.6	112
16	Mechanistic Insights into One-Step Catalytic Conversion of Ethanol to Butadiene over Bifunctional Znâ€"Y/Beta Zeolite. ACS Catalysis, 2018, 8, 2760-2773.	5.5	109
17	Effect of <i>n</i>-Butanol Cofeeding on the Methanol to Aromatics Conversion over Ga-Modified Nano H-ZSM-5 and Its Mechanistic Interpretation. ACS Catalysis, 2018, 8, 1352-1362.	5.5	88
18	Zeolite Structural Confinement Effects Enhance One-Pot Catalytic Conversion of Ethanol to Butadiene. ACS Catalysis, 2017, 7, 3703-3706.	5.5	87

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19	Lewis Acid Catalysis Confined in Zeolite Cages as a Strategy for Sustainable Heterogeneous Hydration of Epoxides. ACS Catalysis, 2016, 6, 2955-2964.	5.5	86
20	Verifying the mechanism of the ethene-to-propene conversion on zeolite H-SSZ-13. Journal of Catalysis, 2014, 314, 10-20.	3.1	84
21	One-pot construction of Fe/ZSM-5 zeolites for the selective catalytic reduction of nitrogen oxides by ammonia. Catalysis Science and Technology, 2017, 7, 3036-3044.	2.1	76
22	Spectroscopic Signature of Lewis Acidic Framework and Extraframework Sn Sites in Beta Zeolites. ACS Catalysis, 2020, 10, 14135-14146.	5.5	67
23	On the deactivation mechanism of zeolite catalyst in ethanol to butadiene conversion. Journal of Catalysis, 2018, 367, 7-15.	3.1	66
24	Zeolite-Encaged Isolated Platinum Ions Enable Heterolytic Dihydrogen Activation and Selective Hydrogenations. Journal of the American Chemical Society, 2021, 143, 20898-20906.	6.6	66
25	Identification of <i>tert</i>â€Butyl Cations in Zeolite Hâ€ZSMâ€5: Evidence from NMR Spectroscopy and DFT Calculations. Angewandte Chemie - International Edition, 2015, 54, 8783-8786.	7.2	63
26	Robust ruthenium catalysts for the selective conversion of stearic acid to diesel-range alkanes. Applied Catalysis B: Environmental, 2017, 201, 137-149.	10.8	60
27	Role of Acetaldehyde in the Roadmap from Initial Carbonâ€"Carbon Bonds to Hydrocarbons during Methanol Conversion. ACS Catalysis, 2019, 9, 6491-6501.	5.5	60
28	Insights into the catalytic cycle and activity of methanol-to-olefin conversion over low-silica AlPO-34 zeolites with controllable BrÃ¸nsted acid density. Catalysis Science and Technology, 2017, 7, 607-618.	2.1	58
29	Catalytic dehydration of methanol to dimethyl ether over aluminophosphate and silico-aluminophosphate molecular sieves. Catalysis Communications, 2011, 12, 535-538.	1.6	57
30	Optimizing zeolite stabilized Pt-Zn catalysts for propane dehydrogenation. Journal of Energy Chemistry, 2021, 57, 92-98.	7.1	54
31	Methanolâ€toâ€Olefin Conversion Catalyzed by Lowâ€Silica AlPOâ€34 with Traces of BrÃ¸nsted Acid Sites: Combined Catalytic and Spectroscopic Investigations. ChemCatChem, 2012, 4, 1428-1435.	1.8	53
32	Stabilizing copper species using zeolite for ethanol catalytic dehydrogenation to acetaldehyde. Chinese Journal of Catalysis, 2019, 40, 1375-1384.	6.9	50
33	Fate of BrÃ¸nsted Acid Sites and Benzeneâ€Based Carbenium Ions During Methanolâ€toâ€Olefin Conversion on SAPOâ€34. ChemCatChem, 2011, 3, 1130-1133.	1.8	49
34	Effect of the Methanol-to-Olefin Conversion on the PFG NMR Self-Diffusivities of Ethane and Ethene in Large-Crystalline SAPO-34. Journal of Physical Chemistry C, 2012, 116, 2469-2476.	1.5	49
35	Diels-Alder and dehydration reactions of furan derivatives with ethylene catalyzed by liquid BrÃ¸nsted acids and Lewis acids. Journal of Molecular Catalysis A, 2016, 420, 134-141.	4.8	43
36	Synthetic Design of Gold Nanoparticles on Anatase TiO₂ {001} for Enhanced Visible Light Harvesting. ACS Sustainable Chemistry and Engineering, 2014, 2, 1940-1946.	3.2	42

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37	Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Smallâ€Pore Zeolites. Angewandte Chemie - International Edition, 2021, 60, 10016-10022.	7.2	39
38	Al-free Fe-beta as a robust catalyst for selective reduction of nitric oxide by ammonia. Catalysis Science and Technology, 2016, 6, 8325-8335.	2.1	36
39	Cascade Conversion of Acetic Acid to Isobutene over Yttrium-Modified Siliceous Beta Zeolites. ACS Catalysis, 2019, 9, 9726-9738.	5.5	36
40	Efficient Capture of Volatile Iodine by Thiophene-Containing Porous Organic Polymers. ACS Applied Polymer Materials, 2020, 2, 5121-5128.	2.0	36
41	Methane combustion over palladium catalyst within the confined space of MFI zeolite. Chinese Journal of Catalysis, 2021, 42, 1689-1699.	6.9	36
42	Fabrication of Ta2O5 films on tantalum substrate for efficient photocatalysis. Catalysis Communications, 2015, 65, 24-29.	1.6	35
43	Facile synthesis of Sn-containing MFI zeolites as versatile solid acid catalysts. Microporous and Mesoporous Materials, 2018, 270, 265-273.	2.2	35
44	Chemical conversion of CO2 into cyclic carbonates using a versatile and efficient all-in-one catalyst integrated with DABCO ionic liquid and MIL-101(Cr). Microporous and Mesoporous Materials, 2021, 318, 111027.	2.2	35
45	Construction of Bifunctional Co/Hâ€ZSMâ€5 Catalysts for the Hydrodeoxygenation of Stearic Acid to Dieselâ€Range Alkanes. ChemSusChem, 2018, 11, 2179-2188.	3.6	34
46	Phosphorus modified HMCM-22: Characterization and catalytic application in methanol-to-hydrocarbons conversion. Microporous and Mesoporous Materials, 2012, 151, 99-106.	2.2	32
47	Evidence of rutile-to-anatase photo-induced electron transfer in mixed-phase TiO₂ by solid-state NMR spectroscopy. Chemical Communications, 2015, 51, 13779-13782.	2.2	32
48	Stabilizing the framework of SAPO-34 zeolite toward long-term methanol-to-olefins conversion. Nature Communications, 2021, 12, 4661.	5.8	32
49	Intermediates and Dominating Reaction Mechanism During the Early Period of the Methanol-to-Olefin Conversion on SAPO-41. Journal of Physical Chemistry C, 2015, 119, 2637-2645.	1.5	31
50	Alkali metal ion exchanged ZSM-5 catalysts: on acidity and methanol-to-olefin performance. Catalysis Science and Technology, 2018, 8, 4440-4449.	2.1	31
51	Fabrication of WO_{2.72}/RGO nano-composites for enhanced photocatalysis. RSC Advances, 2017, 7, 2606-2614.	1.7	30
52	Robust cobalt oxide catalysts for controllable hydrogenation of carboxylic acids to alcohols. Chinese Journal of Catalysis, 2018, 39, 250-257.	6.9	30
53	Insight into the formation of the tert-butyl cation confined inside H-ZSM-5 zeolite from NMR spectroscopy and DFT calculations. Chemical Communications, 2016, 52, 10606-10608.	2.2	29
54	Oxidative dehydrogenation of propane over Ptâ€“Sn/Si-beta catalysts: key role of Ptâ€“Sn interaction. Catalysis Science and Technology, 2018, 8, 3044-3051.	2.1	28

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55	Progressive steps and catalytic cycles in methanol-to-hydrocarbons reaction over acidic zeolites. Fundamental Research, 2022, 2, 184-192.	1.6	28
56	Ru/TiO_2 for the preferential oxidation of CO in H_2-rich stream: Effects of catalyst pre-treatments and reconstruction of Ru sites. Fuel, 2015, 143, 318-326.	3.4	27
57	Rheological Mechanism of Long-Term Self-Assembly in Saponite Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 22954-22959.	1.5	26
58	Integration of multifunctionalities on ionic liquid-anchored MIL-101(Cr): A robust and efficient heterogeneous catalyst for conversion of CO_2 into cyclic carbonates. Microporous and Mesoporous Materials, 2021, 312, 110750.	2.2	26
59	Incorporation of cerium atoms into Al-free Beta zeolite framework for catalytic application. Chinese Journal of Catalysis, 2015, 36, 801-805.	6.9	25
60	Unexpected methanol-to-olefin conversion activity of low-silica aluminophosphate molecular sieves. Catalysis Communications, 2011, 16, 124-127.	1.6	24
61	Self-aldol condensation of aldehydes over Lewis acidic rare-earth cations stabilized by zeolites. Chinese Journal of Catalysis, 2021, 42, 595-605.	6.9	24
62	A one-step route to SAPO-46 using H_3PO_3-containing gel and its application as the catalyst for methanol dehydration. Journal of Molecular Catalysis A, 2009, 308, 127-133.	4.8	22
63	Verifying the dominant catalytic cycle of the methanol-to-hydrocarbon conversion over SAPO-41. Catalysis Science and Technology, 2014, 4, 688-696.	2.1	22
64	Lead-containing Beta zeolites as versatile Lewis acid catalysts for the aminolysis of epoxides. Microporous and Mesoporous Materials, 2018, 264, 230-239.	2.2	22
65	Ru-In/H-SSZ-13 for the selective reduction of nitric oxide by methane: Insights from temperature-programmed desorption studies. Applied Catalysis B: Environmental, 2018, 236, 404-412.	10.8	21
66	Long-term self-assembly of inorganic layered materials influenced by the local states of the interlayer cations. Physical Chemistry Chemical Physics, 2014, 16, 10959-10964.	1.3	20
67	Selective Catalytic Hydrogenolysis of Carbonâ€“Carbon Ïƒ Bonds in Primary Aliphatic Alcohols over Supported Metals. ACS Catalysis, 2015, 5, 7199-7207.	5.5	19
68	Hydrothermal synthesis and photocatalytic properties of tantalum pentoxide nanorods. Chinese Journal of Catalysis, 2015, 36, 432-438.	6.9	18
69	Zeolite-encaged palladium catalysts for heterogeneous Suzuki-Miyaura cross-coupling reactions. Catalysis Today, 2023, 410, 237-246.	2.2	16
70	A simple synthesis of Ga₂O₃ and GaN nanocrystals. RSC Advances, 2017, 7, 47898-47903.	1.7	14
71	Design of plate-like H[Ga]MFI zeolite catalysts for high-performance methanol-to-propylene reaction. Microporous and Mesoporous Materials, 2022, 333, 111767.	2.2	14
72	Tandem Lewis acid catalysis for the conversion of alkenes to 1,2-diols in the confined space of bifunctional TiSn-Beta zeolite. Chinese Journal of Catalysis, 2021, 42, 1176-1184.	6.9	12

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73	Cyclohexane oxidation: Small organic molecules as catalysts. Chinese Journal of Catalysis, 2014, 35, 279-285.	6.9	11
74	Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Smallâ€Pore Zeolites. Angewandte Chemie, 2021, 133, 10104-10110.	1.6	10
75	Entrapped NbOx clusters in MFI zeolite for sustainable acid catalysis. Microporous and Mesoporous Materials, 2020, 305, 110361.	2.2	9
76	Multifunctional heteroatom zeolites: construction and applications. Frontiers of Chemical Science and Engineering, 2021, 15, 1462-1486.	2.3	9
77	The Effect of Organic Impurities Originating from the Incomplete Combustion of Organic Templates on the Methanolâ€toâ€Olefins Reaction over SAPOâ€46. ChemCatChem, 2010, 2, 1548-1551.	1.8	8
78	Nanosheets: Tungsten Oxide Single Crystal Nanosheets for Enhanced Multichannel Solar Light Harvesting (Adv. Mater. 9/2015). Advanced Materials, 2015, 27, 1579-1579.	11.1	8
79	Bimetallic Cr-In/H-SSZ-13 for selective catalytic reduction of nitric oxide by methane. Chinese Journal of Catalysis, 2018, 39, 1004-1011.	6.9	8
80	Reaction kinetics and mechanism of CH₄-SCR on Ruâ€“In/H-SSZ-13. Catalysis Science and Technology, 2020, 10, 6025-6034.	2.1	8
81	Zeolite Stabilized Isolated Molybdenum Species for Catalytic Oxidative Desulfurization. Acta Chimica Sinica, 2020, 78, 1404.	0.5	8
82	Application of ammonia probe-assisted solid-state NMR technique in zeolites and catalysis. Magnetic Resonance Letters, 2022, 2, 28-37.	0.7	8
83	Improvement on the Catalytic Performance of MoO3 Nanobelts for NH3-SCR Reaction by SnO2-Modification: Enhancement of Acidity and Redox Property. Catalysis Letters, 2022, 152, 480-488.	1.4	4
84	Catalytic Hydration of Aromatic Alkynes to Ketones over H-MFI Zeolites. Chemical Research in Chinese Universities, 2022, 38, 173-180.	1.3	4
85	Facile Preparation of Poly(ionic liquid)s-zinc Halide Composite Toward Highly Efficient Conversion of CO₂ into Cyclic Carbonates. Polish Journal of Environmental Studies, 2021, 30, 2597-2608.	0.6	3
86	Titelbild: Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Smallâ€Pore Zeolites (Angew. Chem. 18/2021). Angewandte Chemie, 2021, 133, 9813-9813.	1.6	1
87	Synthesis of NUâ€87 Zeolite via Aging and Dualâ€Templating Methods. ChemistrySelect, 2021, 6, 3952-3957.	0.7	1