

Zhangfeng Qin

List of Publications by Year in descending order

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105
papers

4,452
citations

109137

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118652

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106
all docs

106
docs citations

106
times ranked

4510
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of preparation method on the performance of Zn-containing HZSM-5 catalysts in methanol-to-aromatics. <i>Microporous and Mesoporous Materials</i> , 2014, 197, 252-261.	2.2	338
2	Conversion of Methanol to Olefins over H-ZSM-5 Zeolite: Reaction Pathway Is Related to the Framework Aluminum Siting. <i>ACS Catalysis</i> , 2016, 6, 7311-7325.	5.5	285
3	A New Molybdenum Nitride Catalyst with Rhombohedral MoS ₂ Structure for Hydrogenation Applications. <i>Journal of the American Chemical Society</i> , 2015, 137, 4815-4822.	6.6	195
4	Catalytic performance of MnOx@NiO composite oxide in lean methane combustion at low temperature. <i>Applied Catalysis B: Environmental</i> , 2013, 129, 172-181.	10.8	178
5	A route to form initial hydrocarbon pool species in methanol conversion to olefins over zeolites. <i>Journal of Catalysis</i> , 2014, 317, 277-283.	3.1	151
6	Relation of Catalytic Performance to the Aluminum Siting of Acidic Zeolites in the Conversion of Methanol to Olefins, Viewed via a Comparison between ZSM-5 and ZSM-11. <i>ACS Catalysis</i> , 2018, 8, 5485-5505.	5.5	148
7	Chemical Recycling of Carbon Fiber Reinforced Epoxy Resin Composites via Selective Cleavage of the Carbon-Nitrogen Bond. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 3332-3337.	3.2	141
8	Influence of crystal size on the catalytic performance of H-ZSM-5 and Zn/H-ZSM-5 in the conversion of methanol to aromatics. <i>Fuel Processing Technology</i> , 2017, 157, 99-107.	3.7	138
9	Graphene-supported Au@Pd bimetallic nanoparticles with excellent catalytic performance in selective oxidation of methanol to methyl formate. <i>Chemical Communications</i> , 2013, 49, 8250.	2.2	120
10	Regulation of Framework Aluminum Siting and Acid Distribution in H-MCM-22 by Boron Incorporation and Its Effect on the Catalytic Performance in Methanol to Hydrocarbons. <i>ACS Catalysis</i> , 2016, 6, 2299-2313.	5.5	113
11	Polymethylbenzene or Alkene Cycle? Theoretical Study on Their Contribution to the Process of Methanol to Olefins over H-ZSM-5 Zeolite. <i>Journal of Physical Chemistry C</i> , 2015, 119, 28482-28498.	1.5	105
12	High Si/Al ratio HZSM-5 zeolite: an efficient catalyst for the synthesis of polyoxymethylene dimethyl ethers from dimethoxymethane and trioxymethylene. <i>Green Chemistry</i> , 2015, 17, 2353-2357.	4.6	100
13	Morphologic effects of nano CeO ₂ @TiO ₂ on the performance of Au/CeO ₂ @TiO ₂ catalysts in low-temperature CO oxidation. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 498-506.	10.8	96
14	Direct Conversion of Syngas into Light Olefins with Low CO ₂ Emission. <i>ACS Catalysis</i> , 2020, 10, 2046-2059.	5.5	77
15	Chemical recycling of unsaturated polyester resin and its composites via selective cleavage of the ester bond. <i>Green Chemistry</i> , 2015, 17, 4527-4532.	4.6	76
16	Methanol to Olefins over H-MCM-22 Zeolite: Theoretical Study on the Catalytic Roles of Various Pores. <i>ACS Catalysis</i> , 2015, 5, 1131-1144.	5.5	72
17	Origin and evolution of the initial hydrocarbon pool intermediates in the transition period for the conversion of methanol to olefins over H-ZSM-5 zeolite. <i>Journal of Catalysis</i> , 2019, 369, 382-395.	3.1	72
18	Polyurethane Foam-Based Ultramicroporous Carbons for CO ₂ Capture. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 18849-18859.	4.0	68

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19	Surfactant Assembly within Pickering Emulsion Droplets for Fabrication of Interior-Structured Mesoporous Carbon Microspheres. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10899-10904.	7.2	65
20	Regulating Al distribution of ZSM-5 by Sn incorporation for improving catalytic properties in methanol to olefins. <i>Applied Catalysis B: Environmental</i> , 2021, 280, 119391.	10.8	61
21	A sulfur K-edge XANES study on the transfer of sulfur species in the reactive adsorption desulfurization of diesel oil over Ni/ZnO. <i>Catalysis Communications</i> , 2010, 11, 592-596.	1.6	58
22	Selective Conversion of CO ₂ into Propene and Butene. <i>CheM</i> , 2020, 6, 3344-3363.	5.8	58
23	Graphene oxide: an effective acid catalyst for the synthesis of polyoxymethylene dimethyl ethers from methanol and trioxymethylene. <i>Catalysis Science and Technology</i> , 2016, 6, 993-997.	2.1	53
24	One-step fabrication of Ni-embedded hierarchically-porous carbon microspheres for levulinic acid hydrogenation. <i>Chemical Engineering Journal</i> , 2019, 369, 386-393.	6.6	53
25	Highly active and stable Zn/ZSM-5 zeolite catalyst for the conversion of methanol to aromatics: effect of support morphology. <i>Catalysis Science and Technology</i> , 2018, 8, 5646-5656.	2.1	52
26	Degradable polymers from ring-opening polymerization of \pm -angelica lactone, a five-membered unsaturated lactone. <i>Polymer Chemistry</i> , 2011, 2, 1190-1194.	1.9	51
27	Lewis acid-catalyzed transesterification and esterification of high free fatty acid oil in subcritical methanol. <i>Korean Journal of Chemical Engineering</i> , 2007, 24, 311-313.	1.2	50
28	Stability and Reactivity of Intermediates of Methanol Related Reactions and C-C Bond Formation over H-ZSM-5 Acidic Catalyst: A Computational Analysis. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6075-6087.	1.5	50
29	Tuning the siting of aluminum in ZSM-11 zeolite and regulating its catalytic performance in the conversion of methanol to olefins. <i>Journal of Catalysis</i> , 2019, 377, 81-97.	3.1	50
30	Enhancement of light olefin production in CO ₂ hydrogenation over In ₂ O ₃ -based oxide and SAPO-34 composite. <i>Journal of Catalysis</i> , 2020, 391, 459-470.	3.1	44
31	Methane formation mechanism in the initial methanol-to-olefins process catalyzed by SAPO-34. <i>Catalysis Science and Technology</i> , 2016, 6, 5526-5533.	2.1	43
32	Rapid tuning of ZSM-5 crystal size by using polyethylene glycol or colloidal silicalite-1 seed. <i>Microporous and Mesoporous Materials</i> , 2012, 163, 192-200.	2.2	41
33	Synthesis of Chainlike ZSM-5 Zeolites: Determination of Synthesis Parameters, Mechanism of Chainlike Morphology Formation, and Their Performance in Selective Adsorption of Xylene Isomers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14899-14910.	4.0	39
34	Reaction Coupling in the New Processes for Producing Styrene from Ethylbenzene. <i>Industrial & Engineering Chemistry Research</i> , 2003, 42, 1329-1333.	1.8	38
35	Aerobic Oxidation of Alcohols over Isolated Single Au Atoms Supported on CeO ₂ Nanorods: Catalysis of Interfacial [O ² -O ² -Ce ²⁺ -O ² -Au] Sites. <i>ACS Applied Nano Materials</i> , 2019, 2, 5214-5223.	2.4	36
36	Evolution of Zn Species on Zn/HZSM-5 Catalyst under H ₂ Pretreated and its Effect on Ethylene Aromatization. <i>ChemCatChem</i> , 2019, 11, 3892-3902.	1.8	34

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37	Theoretical Insights into the Mechanism of Olefin Elimination in the Methanol-to-Olefin Process over HZSM-5, HMOR, HBEA, and HMCM-22 Zeolites. <i>Journal of Physical Chemistry A</i> , 2014, 118, 8901-8910.	1.1	33
38	A facile method for the synthesis of graphene-like 2D metal oxides and their excellent catalytic application in the hydrogenation of nitroarenes. <i>Journal of Materials Chemistry A</i> , 2018, 6, 9948-9961.	5.2	33
39	Synthesis of two-dimensional mesoporous carbon nitride under different carbonization temperatures and investigation of its catalytic properties in Knoevenagel condensations. <i>RSC Advances</i> , 2015, 5, 22838-22846.	1.7	32
40	Highly effective conversion of CO ₂ into light olefins abundant in ethene. <i>CheM</i> , 2022, 8, 1376-1394.	5.8	31
41	Promoting effect of carbon dioxide on the dehydrogenation of ethylbenzene over silica-supported vanadium catalysts. <i>Fuel</i> , 2013, 109, 43-48.	3.4	30
42	Mechanistic insights into the catalytic role of various acid sites on ZSM-5 zeolite in the carbonylation of methanol and dimethyl ether. <i>Catalysis Science and Technology</i> , 2018, 8, 3193-3204.	2.1	29
43	Liquid-Liquid Equilibria for Methanol + Water + Hexane Ternary Mixtures. <i>Journal of Chemical & Engineering Data</i> , 2002, 47, 1243-1245.	1.0	26
44	Direct synthesis of acetic acid from carbon dioxide and methane over Cu-modulated BEA, MFI, MOR and TON zeolites: a density functional theory study. <i>Catalysis Science and Technology</i> , 2019, 9, 6613-6626.	2.1	26
45	Effect of zeolite pore structure on the diffusion and catalytic behaviors in the transalkylation of toluene with 1,2,4-trimethylbenzene. <i>RSC Advances</i> , 2015, 5, 66301-66310.	1.7	25
46	Conversion of syngas into light olefins over bifunctional ZnCeZrO/SAPO-34 catalysts: regulation of the surface oxygen vacancy concentration and its relation to the catalytic performance. <i>Catalysis Science and Technology</i> , 2021, 11, 338-348.	2.1	25
47	Friedel-Crafts acylation of anisole and toluene with acetic anhydride over nano-sized Beta zeolites. <i>Catalysis Letters</i> , 2007, 117, 171-176.	1.4	24
48	Evolution of Aromatic Species in Supercages and Its Effect on the Conversion of Methanol to Olefins over H-MCM-22 Zeolite: A Density Functional Theory Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 27964-27979.	1.5	24
49	Self-metathesis of 1-butene to propene over SBA-15-supported WO ₃ . <i>Catalysis Science and Technology</i> , 2016, 6, 5515-5525.	2.1	24
50	Promoting effect of alkali metal cations on the catalytic performance of Pd/H-ZSM-5 in the combustion of lean methane. <i>Applied Catalysis A: General</i> , 2020, 602, 117678.	2.2	24
51	Methanol to olefins over H-RUB-13 zeolite: regulation of framework aluminum siting and acid density and their relationship to the catalytic performance. <i>Catalysis Science and Technology</i> , 2020, 10, 1835-1847.	2.1	24
52	Methanol Synthesis under Supercritical Conditions: Calculations of Equilibrium Conversions by Using the Soave-Redlich-Kwong Equation of State. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 3801-3805.	1.8	23
53	Insight into the effect of incorporation of boron into ZSM-11 on its catalytic performance for conversion of methanol to olefins. <i>Catalysis Science and Technology</i> , 2017, 7, 4766-4779.	2.1	23
54	Plasmon-enhanced furfural hydrogenation catalyzed by stable carbon-coated copper nanoparticles driven from metal-organic frameworks. <i>Catalysis Science and Technology</i> , 2020, 10, 6483-6494.	2.1	23

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55	Catalytic roles of the acid sites in different pore channels of H-ZSM-5 zeolite for methanol-to-olefins conversion. <i>Chinese Journal of Catalysis</i> , 2021, 42, 1126-1136.	6.9	23
56	Positive Effect of Water Vapor on CO Oxidation at Low Temperature over Pd/CeO ₂ -TiO ₂ Catalyst. <i>Catalysis Letters</i> , 2008, 126, 353-360.	1.4	22
57	Surfactant Assembly within Pickering Emulsion Droplets for Fabrication of Interior-Structured Mesoporous Carbon Microspheres. <i>Angewandte Chemie</i> , 2018, 130, 11065-11070.	1.6	22
58	Reaction Coupling of Ethylbenzene Dehydrogenation with Nitrobenzene Hydrogenation. <i>Catalysis Letters</i> , 2002, 79, 33-37.	1.4	21
59	Zinc Carboxylate Functionalized Mesoporous SBA-15 Catalyst for Selective Synthesis of Methyl-4,4'-di(phenylcarbamate). <i>Catalysis Letters</i> , 2009, 128, 405-412.	1.4	21
60	Kinetics and thermodynamics of polymethylbenzene formation over zeolites with different pore sizes for understanding the mechanisms of methanol to olefin conversion – a computational study. <i>Catalysis Science and Technology</i> , 2016, 6, 5326-5335.	2.1	21
61	A control strategy of flow reversal with hot gas withdrawal for heat recovery and its application in mitigation and utilization of ventilation air methane in a reverse flow reactor. <i>Chemical Engineering Journal</i> , 2013, 228, 243-255.	6.6	20
62	Demonstration of mitigation and utilization of ventilation air methane in a pilot scale catalytic reverse flow reactor. <i>Fuel Processing Technology</i> , 2017, 160, 102-108.	3.7	20
63	Effect of Pretreatment on the Adsorption Performance of Ni/ZnO Adsorbent for Dibenzothiophene Desulfurization. <i>ACS Omega</i> , 2018, 3, 18967-18975.	1.6	20
64	A highly active Pd/H-ZSM-5 catalyst in lean methane combustion prepared via a sol-gel method and treated by reduction-oxidation. <i>New Journal of Chemistry</i> , 2020, 44, 3940-3949.	1.4	20
65	Highly active Au-Pd nanoparticles supported on three-dimensional graphene-carbon nanotube hybrid for selective oxidation of methanol to methyl formate. <i>RSC Advances</i> , 2015, 5, 44835-44839.	1.7	19
66	Reactive adsorption desulfurization of thiophene over NiMo/ZnO, a new adsorbent with high desulfurization performance and sulfur capacity at moderate temperature. <i>Catalysis Science and Technology</i> , 2019, 9, 6318-6326.	2.1	19
67	Catalytic Combustion of Lean Methane at Low Temperature Over Palladium on a CoO x SiO ₂ Composite Support. <i>Catalysis Letters</i> , 2013, 143, 411-417.	1.4	18
68	Kinetic study of vapor-phase Beckmann rearrangement of cyclohexanone oxime over silicalite-1. <i>Chemical Engineering Science</i> , 2016, 153, 246-254.	1.9	18
69	Reaction Mechanism for Direct Cyclization of Linear C ₅ , C ₆ , and C ₇ Alkenes over H ₂ TQ-13 Zeolite Investigated Using Density Functional Theory. <i>ChemPhysChem</i> , 2018, 19, 496-503.	1.0	18
70	Reaction mechanism for the conversion of methanol to olefins over H-ITQ-13 zeolite: a density functional theory study. <i>Catalysis Science and Technology</i> , 2018, 8, 521-533.	2.1	18
71	Co-reaction of methanol with butene over a high-silica H-ZSM-5 catalyst. <i>Journal of Catalysis</i> , 2018, 367, 315-325.	3.1	16
72	Hierarchically structured Pt/K-Beta zeolites for the catalytic conversion of n-heptane to aromatics. <i>Microporous and Mesoporous Materials</i> , 2021, 324, 111308.	2.2	16

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73	Preparation of mesoporous activated carbon fiber by steam activation in the presence of cerium oxide and its adsorption of Congo red and Vitamin B12 from solution. <i>Journal of Materials Science</i> , 2004, 39, 4693-4696.	1.7	15
74	Controllable decoration of palladium sub-nanoclusters on reduced graphene oxide with superior catalytic performance in selective oxidation of alcohols. <i>Catalysis Science and Technology</i> , 2017, 7, 5650-5661.	2.1	15
75	Effective conversion of CO ₂ into light olefins over a bifunctional catalyst consisting of La-modified ZnZrO _x oxide and acidic zeolite. <i>Catalysis Science and Technology</i> , 2022, 12, 2566-2577.	2.1	15
76	Synthesis of polyoxymethylene dimethyl ethers from dimethoxymethane and trioxymethylene over graphene oxide: Probing the active species and relating the catalyst structure to performance. <i>Applied Catalysis A: General</i> , 2019, 570, 15-22.	2.2	14
77	Alkylation of Benzene with Propene on Beta Zeolites Under Supercritical Conditions. <i>Catalysis Letters</i> , 2002, 83, 265-269.	1.4	13
78	A comparison of Al-rich Cu-SSZ-13 zeolites synthesized by different methods in their Al distribution, hydrothermal stability and catalytic performance in the selective catalytic reduction of NO _x with NH ₃ . <i>Microporous and Mesoporous Materials</i> , 2021, 313, 110851.	2.2	13
79	The migration of Zn species on Zn/ZSM-5 catalyst during the process of ethylene aromatization. <i>Catalysis Science and Technology</i> , 2022, 12, 4201-4210.	2.1	13
80	Coupling dehydrogenation of isobutane to produce isobutene in carbon dioxide over NiO/β-Al ₂ O ₃ catalyst. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2010, 101, 173-181.	0.8	11
81	Comparative Study of Methanol to Olefins Over ZSM-5, ZSM-11, ZSM-22 and EU-1: Dependence of Catalytic Performance on the Zeolite Framework Structure. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 3680-3688.	0.9	11
82	Insight into the Methylation of Alkenes and Aromatics with Methanol over Zeolite Catalysts by Linear Scaling Relations. <i>Journal of Physical Chemistry C</i> , 2020, 124, 13789-13798.	1.5	11
83	Effects of carbon on the sulfidation and hydrodesulfurization of CoMo hydrating catalysts. <i>Korean Journal of Chemical Engineering</i> , 2009, 26, 576-581.	1.2	10
84	Mechanistic Insights into Ethylene Transformations on Ir(111) by Density Functional Calculations and Microkinetic Modeling. <i>ChemPhysChem</i> , 2017, 18, 906-916.	1.0	10
85	Catalytic Performance of Gold Supported on Mn, Fe and Ni Doped Ceria in the Preferential Oxidation of CO in H ₂ -Rich Stream. <i>Catalysts</i> , 2018, 8, 469.	1.6	10
86	Selective oxidative esterification of alcohols over Au-Pd/graphene. <i>Molecular Catalysis</i> , 2020, 484, 110687.	1.0	10
87	Unraveling the Relationship between Zeolite Structure and MTO Product Distribution by Theoretical Study of the Reaction Mechanism. <i>Journal of Physical Chemistry C</i> , 2021, 125, 26472-26483.	1.5	9
88	Competitive reactive adsorption desulphurization of dibenzothiophene and hydrogenation of naphthalene over Ni/ZnO. <i>Canadian Journal of Chemical Engineering</i> , 2018, 96, 865-872.	0.9	7
89	Preparation of Pd/SiO ₂ Catalysts by a Simple Dry Ball-Milling Method for Lean Methane Oxidation and Probe of the State of Active Pd Species. <i>Catalysts</i> , 2021, 11, 725.	1.6	7
90	Influence of the ZSM-5 Support Acidity on the Catalytic Performance of Pd/ZSM-5 in Lean Methane Oxidation. <i>Chemical Research in Chinese Universities</i> , 2022, 38, 229-236.	1.3	7

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91	Regulating the distribution of acid sites in ZSM-11 zeolite with different halogen anions to enhance its catalytic performance in the conversion of methanol to olefins. <i>Microporous and Mesoporous Materials</i> , 2022, 341, 112051.	2.2	7
92	Systematic study of the crystallization process of CrAPO-5 using in situ high resolution X-ray diffraction. <i>RSC Advances</i> , 2017, 7, 22964-22973.	1.7	6
93	Area-Controllable Synthesis of (001), (101), and (011) Planes in ZSM-5 Zeolites. <i>Crystal Growth and Design</i> , 2018, 18, 7548-7561.	1.4	6
94	Structural and electronic feature evolution of Au-Pd bimetallic catalysts supported on graphene and SiO ₂ in H ₂ and O ₂ . <i>Journal of Catalysis</i> , 2019, 376, 44-56.	3.1	6
95	Catalytic Performance of Various Zinc-Based Binary Metal Oxides/H-RUB-13 for Hydrogenation of CO ₂ . <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 10409-10418.	1.8	6
96	Enhancing the catalytic performance of H-ITQ-13 zeolite in the conversion of methanol to olefins through regulating the aluminum distribution in its framework. <i>Applied Catalysis A: General</i> , 2022, 637, 118604.	2.2	6
97	A logic-based controller for the mitigation of ventilation air methane in a catalytic flow reversal reactor. <i>Frontiers of Chemical Science and Engineering</i> , 2013, 7, 347-356.	2.3	5
98	Structure and performance of supported iridium catalyst for the lean methane oxidation at low temperature. <i>Applied Catalysis A: General</i> , 2022, 641, 118699.	2.2	5
99	Molecular dynamics simulations on single-file diffusions: Effects of channel potential periods and particle-particle interactions. <i>Journal of Applied Physics</i> , 2009, 106, 084905.	1.1	4
100	Catalytic Performance and Mechanistic Insights into the Synthesis of Polyoxymethylene Dimethyl Ethers from Dimethoxymethane and Trioxymethylene over ZSM-5 Zeolite. <i>Catalysis Letters</i> , 2021, 151, 670-684.	1.4	4
101	Synthesis of HZSM-5 Rich in Paired Al and Its Catalytic Performance for Propane Aromatization. <i>Catalysts</i> , 2020, 10, 622.	1.6	3
102	Probing into the building and evolution of primary hydrocarbon pool species in the process of methanol to olefins over H-ZSM-5 zeolite. <i>Molecular Catalysis</i> , 2021, 516, 111968.	1.0	3
103	Improvement of the catalytic performance of ITQ-13 zeolite in methanol to olefins via Ce modification. <i>Catalysis Today</i> , 2023, 410, 184-192.	2.2	3
104	Title is missing!. <i>Journal of Materials Science Letters</i> , 2003, 22, 635-637.	0.5	2
105	Trimethyloxonium ion â€“ a zeolite confined mobile and efficient methyl carrier at low temperatures: a DFT study coupled with microkinetic analysis. <i>Catalysis Science and Technology</i> , 2022, 12, 3328-3342.	2.1	2