Johannes A Lercher

List of Publications by Year
in descending order

592 papers	35,183 citations	3151 92 h-index	7511 151 g-index
633 all docs	633 docs citations	633 times ranked	19106 citing authors

#	ARTICLE	IF	CITATIONS
1	Single-site trinuclear copper oxygen clusters in mordenite for selective conversion of methane to methanol. Nature Communications, 2015, 6, 7546.	5.8	623
2	Highly Selective Catalytic Conversion of Phenolic Bioâ€Oil to Alkanes. Angewandte Chemie - International Edition, 2009, 48, 3987-3990.	7.2	590
3	Infrared studies of the surface acidity of oxides and zeolites using adsorbed probe molecules. Catalysis Today, 1996, 27, 353-376.	2.2	473
4	Aqueous-phase hydrodeoxygenation of bio-derived phenols to cycloalkanes. Journal of Catalysis, 2011, 280, 8-16.	3.1	469
5	Towards Quantitative Catalytic Lignin Depolymerization. Chemistry - A European Journal, 2011, 17, 5939-5948.	1.7	465
6	Ni-Catalyzed Cleavage of Aryl Ethers in the Aqueous Phase. Journal of the American Chemical Society, 2012, 134, 20768-20775.	6.6	415
7	Oxidative Dehydrogenation of Ethane: Common Principles and Mechanistic Aspects. ChemCatChem, 2013, 5, 3196-3217.	1.8	360
8	Stabilizing Catalytic Pathways via Redundancy: Selective Reduction of Microalgae Oil to Alkanes. Journal of the American Chemical Society, 2012, 134, 9400-9405.	6.6	317
9	Coordination Modulation Induced Synthesis of Nanoscale Eu_{1â€<i>x</i>}Tb_{<i>x</i>}â€Metalâ€Organic Frameworks for Luminescent Thin Films. Advanced Materials, 2010, 22, 4190-4192.	11.1	314
10	Towards Quantitative Conversion of Microalgae Oil to Dieselâ€Range Alkanes with Bifunctional Catalysts. Angewandte Chemie - International Edition, 2012, 51, 2072-2075.	7.2	297
11	Structure Sensitivity of the Hydrogenation of Crotonaldehyde over Pt/SiO2and Pt/TiO2. Journal of Catalysis, 1997, 166, 25-35.	3.1	289
12	Coke formation and deactivation pathways on H-ZSM-5 in the conversion of methanol to olefins. Journal of Catalysis, 2015, 325, 48-59.	3.1	289
13	Catalytic deoxygenation of microalgae oil to green hydrocarbons. Green Chemistry, 2013, 15, 1720.	4.6	285
14	Selective Hydrodeoxygenation of Ligninâ€Derived Phenolic Monomers and Dimers to Cycloalkanes on Pd/C and HZSMâ€5 Catalysts. ChemCatChem, 2012, 4, 64-68.	1.8	284
15	Methane Oxidation to Methanol Catalyzed by Cu-Oxo Clusters Stabilized in NU-1000 Metalâ€“Organic Framework. Journal of the American Chemical Society, 2017, 139, 10294-10301.	6.6	282
16	Upgrading Pyrolysis Oil over Ni/HZSMâ€5 by Cascade Reactions. Angewandte Chemie - International Edition, 2012, 51, 5935-5940.	7.2	281
17	Monomolecular Conversion of Light Alkanes over H-ZSM-5. Journal of Catalysis, 1995, 157, 388-395.	3.1	278
18	Sintering-Resistant Single-Site Nickel Catalyst Supported by Metalâ€“Organic Framework. Journal of the American Chemical Society, 2016, 138, 1977-1982.	6.6	273

#	Article	IF	Citations
19	Elementary steps of NOx adsorption and surface reaction on aÂcommercial storageâ€“reduction catalyst. Journal of Catalysis, 2003, 214, 308-316.	3.1	266
20	Hydrogen Transfer Pathways during Zeolite Catalyzed Methanol Conversion to Hydrocarbons. Journal of the American Chemical Society, 2016, 138, 15994-16003.	6.6	265
21	Towards understanding the bifunctional hydrodeoxygenation and aqueous phase reforming of glycerol. Journal of Catalysis, 2010, 269, 411-420.	3.1	263
22	Mono and Bifunctional Pathways of CO2/CH4Reforming over Pt and Rh Based Catalysts. Journal of Catalysis, 1998, 176, 93-101.	3.1	257
23	Adsorption of water on ZSM 5 zeolites. The Journal of Physical Chemistry, 1989, 93, 4837-4843.	2.9	252
24	Hydrodeoxygenation of bio-derived phenols to hydrocarbons using RANEYÂ® Ni and Nafion/SiO₂catalysts. Chemical Communications, 2010, 46, 412-414.	2.2	250
25	Stability of Zeolites in Hot Liquid Water. Journal of Physical Chemistry C, 2010, 114, 19582-19595.	1.5	246
26	BrÃ¸nsted Acid Site and Pore Controlled Siting of Alkane Sorption in Acidic Molecular Sieves. Journal of Physical Chemistry B, 1997, 101, 5414-5419.	1.2	242
27	Synergistic effects of Ni and acid sites for hydrogenation and Câ€“O bond cleavage of substituted phenols. Green Chemistry, 2015, 17, 1204-1218.	4.6	241
28	On reaction pathways in the conversion of methanol to hydrocarbons on HZSM-5. Journal of Catalysis, 2014, 317, 185-197.	3.1	236
29	Compensation Phenomena in Heterogeneous Catalysis: General Principles and a Possible Explanation. Catalysis Reviews - Science and Engineering, 2000, 42, 323-383.	5.7	234
30	Alkane sorption in molecular sieves: The contribution of ordering, intermolecular interactions, and sorption on BrÃ¸nsted acid sites. Zeolites, 1997, 18, 75-81.	0.9	230
31	Influence of Surface Modification on the Acid Site Distribution of HZSM-5. Journal of Physical Chemistry B, 2002, 106, 9552-9558.	1.2	227
32	First-Principles Study of Phenol Hydrogenation on Pt and Ni Catalysts in Aqueous Phase. Journal of the American Chemical Society, 2014, 136, 10287-10298.	6.6	226
33	The State of Zirconia Supported Platinum Catalysts for CO2/CH4Reforming. Journal of Catalysis, 1997, 171, 279-286.	3.1	223
34	Stability and reactivity of copper oxo-clusters in ZSM-5 zeolite for selective methane oxidation to methanol. Journal of Catalysis, 2016, 338, 305-312.	3.1	217
35	Selective catalytic hydroalkylation and deoxygenation of substituted phenols to bicycloalkanes. Journal of Catalysis, 2012, 288, 92-103.	3.1	213
36	Manipulating Catalytic Pathways: Deoxygenation of Palmitic Acid on Multifunctional Catalysts. Chemistry - A European Journal, 2013, 19, 4732-4741.	1.7	212

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37	Comparison of kinetics, activity and stability of Ni/HZSM-5 and Ni/Al2O3-HZSM-5 for phenol hydrodeoxygenation. Journal of Catalysis, 2012, 296, 12-23.	3.1	207
38	Adsorption complexes of methanol on zeolite ZSM-5. Journal of the Chemical Society, Faraday Transactions, 1990, 86, 3039.	1.7	205
39	Quantitatively Probing the Al Distribution in Zeolites. Journal of the American Chemical Society, 2014, 136, 8296-8306.	6.6	199
40	Lewisâ€“BrÃ¸nsted Acid Pairs in Ga/H-ZSM-5 To Catalyze Dehydrogenation of Light Alkanes. Journal of the American Chemical Society, 2018, 140, 4849-4859.	6.6	198
41	On the Role of the Pore Size and Tortuosity for Sorption of Alkanes in Molecular Sieves. Journal of Physical Chemistry B, 1997, 101, 1273-1278.	1.2	193
42	Tunable Water and CO₂ Sorption Properties in Isostructural Azine-Based Covalent Organic Frameworks through Polarity Engineering. Chemistry of Materials, 2015, 27, 7874-7881.	3.2	192
43	Adsorption of C2â^'C8 <i>n</i>-Alkanes in Zeolites. Journal of Physical Chemistry C, 2011, 115, 1204-1219.	1.5	187
44	Electrocatalytic Hydrogenation of Biomass-Derived Organics: A Review. Chemical Reviews, 2020, 120, 11370-11419.	23.0	185
45	Carbon Deposition during Carbon Dioxide Reforming of Methaneâ€"Comparison between Pt/Al2O3 and Pt/ZrO2. Journal of Catalysis, 2001, 197, 34-42.	3.1	183
46	Transport and Isomerization of Xylenes over HZSM-5 Zeolites. Journal of Catalysis, 1993, 139, 24-33.	3.1	178
47	Methyl Chloride Production from Methane over Lanthanum-Based Catalysts. Journal of the American Chemical Society, 2007, 129, 2569-2576.	6.6	174
48	Design of stable catalysts for methane-carbon dioxide reforming. Studies in Surface Science and Catalysis, 1996, 101, 463-472.	1.5	166
49	Deactivation and Coke Accumulation during CO2/CH4Reforming over Pt Catalysts. Journal of Catalysis, 1999, 183, 336-343.	3.1	166
50	Impact of the local environment of BrÃ¸nsted acid sites in ZSM-5 on the catalytic activity in n-pentane cracking. Journal of Catalysis, 2014, 316, 93-102.	3.1	165
51	Steaming of Zeolite BEA and Its Effect on Acidity: A Comparative NMR and IR Spectroscopic Study. Journal of Physical Chemistry C, 2011, 115, 8005-8013.	1.5	163
52	Dealumination of HZSM-5 via steam-treatment. Microporous and Mesoporous Materials, 2012, 164, 9-20.	2.2	161
53	Effects of the Support on the Performance and Promotion of (Ni)MoS₂ Catalysts for Simultaneous Hydrodenitrogenation and Hydrodesulfurization. ACS Catalysis, 2014, 4, 1487-1499.	5.5	157
54	The synergistic effect between Ni sites and Ni-Fe alloy sites on hydrodeoxygenation of lignin-derived phenols. Applied Catalysis B: Environmental, 2019, 253, 348-358.	10.8	155

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55	Synthesis, characterization and catalytic activity of the pillared molecular sieve MCM-36. Microporous and Mesoporous Materials, 1998, 25, 207-224.	2.2	154
56	Impact of solvent for individual steps of phenol hydrodeoxygenation with Pd/C and HZSM-5 as catalysts. Journal of Catalysis, 2014, 309, 362-375.	3.1	154
57	Formation Mechanism of the First Carbonâ€"Carbon Bond and the First Olefin in the Methanol Conversion into Hydrocarbons. Angewandte Chemie - International Edition, 2016, 55, 5723-5726.	7.2	154
58	On the mechanism of catalyzed isobutane/butene alkylation by zeolites. Journal of Catalysis, 2004, 224, 80-93.	3.1	150
59	Determining the location and nearest neighbours of aluminium in zeolites with atom probe tomography. Nature Communications, 2015, 6, 7589.	5.8	139
60	On the impact of co-feeding aromatics and olefins for the methanol-to-olefins reaction on HZSM-5. Journal of Catalysis, 2014, 314, 21-31.	3.1	135
61	Preparation of Barium Titanates from Oxalates. Journal of the American Ceramic Society, 1993, 76, 1185-1190.	1.9	132
62	Selective Methane Oxidation to Methanol on Cu-Oxo Dimers Stabilized by Zirconia Nodes of an NU-1000 Metalâ€"Organic Framework. Journal of the American Chemical Society, 2019, 141, 9292-9304.	6.6	131
63	Importance of Size and Distribution of Ni Nanoparticles for the Hydrodeoxygenation of Microalgae Oil. Chemistry - A European Journal, 2013, 19, 9833-9842.	1.7	130
64	Surface Acidity and Basicity of La2O3, LaOCl, and LaCl3Characterized by IR Spectroscopy, TPD, and DFT Calculations. Journal of Physical Chemistry B, 2004, 108, 15770-15781.	1.2	127
65	Determination of proton affinity of zeolites and zeolite-like solids by low-temperature adsorption of carbon monoxide. Zeolites, 1989, 9, 539-543.	0.9	124
66	Generation and Characterization of Well-Defined Zn2+ Lewis Acid Sites in Ion Exchanged Zeolite BEA. Journal of Physical Chemistry B, 2004, 108, 4116-4126.	1.2	121
67	Mechanisms of catalytic cleavage of benzyl phenyl ether in aqueous and apolar phases. Journal of Catalysis, 2014, 311, 41-51.	3.1	120
68	Accurate Adsorption Thermodynamics of Small Alkanes in Zeolites. Ab initio Theory and Experiment for H-Chabazite. Journal of Physical Chemistry C, 2015, 119, 6128-6137.	1.5	120
69	Genesis and Stability of Hydronium Ions in Zeolite Channels. Journal of the American Chemical Society, 2019, 141, 3444-3455.	6.6	119
70	Controlled decrease of acid strength by orthophosphoric acid on ZSM5. Applied Catalysis, 1986, 25, 215-222.	1.1	117
71	Hydrogenation of benzaldehyde via electrocatalysis and thermal catalysis on carbon-supported metals. Journal of Catalysis, 2018, 359, 68-75.	3.1	116
72	Studies on the deactivation of NO storage-reduction catalysts by sulfur dioxide. Catalysis Today, 2002, 75, 413-419.	2.2	115

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73	Dehydrogenation of Light Alkanes over Zeolites. Journal of Catalysis, 1997, 172, 127-136.	3.1	111
74	Mechanism and Kinetics of CO₂ Adsorption on Surface Bonded Amines. Journal of Physical Chemistry C, 2015, 119, 4126-4135.	1.5	111
75	Aqueous Phase Hydroalkylation and Hydrodeoxygenation of Phenol by Dual Functional Catalysts Comprised of Pd/C and H/La-BEA. ACS Catalysis, 2012, 2, 2714-2723.	5.5	110
76	Dehydration Pathways of 1-Propanol on HZSM-5 in the Presence and Absence of Water. Journal of the American Chemical Society, 2015, 137, 15781-15794.	6.6	110
77	Mechanisms of selective cleavage of Câ€“O bonds in di-aryl ethers in aqueous phase. Journal of Catalysis, 2014, 309, 280-290.	3.1	108
78	Carbonium ion formation in zeolite catalysis. Catalysis Letters, 1994, 27, 91-96.	1.4	106
79	An Explanation for the Enhanced Activity for Light Alkane Conversion in Mildly Steam Dealuminated Mordenite: The Dominant Role of Adsorption. Journal of Catalysis, 2001, 202, 129-140.	3.1	106
80	Methane autothermal reforming with and without ethane over mono- and bimetal catalysts prepared from hydrotalcite precursors. Journal of Catalysis, 2005, 229, 185-196.	3.1	106
81	Nature and Location of Cationic Lanthanum Species in High Alumina Containing Faujasite Type Zeolites. Journal of Physical Chemistry C, 2011, 115, 21763-21776.	1.5	105
82	Adsorption and surface reactions of thiophene on ZSM 5 zeolites. The Journal of Physical Chemistry, 1992, 96, 2669-2675.	2.9	104
83	Aqueous phase electrocatalysis and thermal catalysis for the hydrogenation of phenol at mild conditions. Applied Catalysis B: Environmental, 2016, 182, 236-246.	10.8	103
84	Common mechanistic aspects of liquid and solid acid catalyzed alkylation of isobutane with n -butene. Journal of Catalysis, 2003, 216, 313-323.	3.1	102
85	A New Type of Low-Ï° Dielectric Films Based on Polysilsesquioxanes. Advanced Materials, 2002, 14, 1369-1373.	11.1	101
86	Alkylation of Toluene over Basic Catalystsâ€"Key Requirements for Side Chain Alkylation. Journal of Catalysis, 1998, 180, 56-65.	3.1	100
87	Critical role of formaldehyde during methanol conversion to hydrocarbons. Nature Communications, 2019, 10, 1462.	5.8	100
88	Reductive deconstruction of organosolv lignin catalyzed by zeolite supported nickel nanoparticles. Green Chemistry, 2015, 17, 5079-5090.	4.6	98
89	On the coke deposition in dry reforming of methane at elevated pressures. Applied Catalysis A: General, 2015, 504, 599-607.	2.2	97
90	Enhancement of Sorption Processes in the Zeolite Hâ€ZSM5 by Postsynthetic Surface Modification. Angewandte Chemie - International Edition, 2009, 48, 533-538.	7.2	96

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91	Xylene isomerization with surface-modified HZSM-5 zeolite catalysts: An in situ IR study. Journal of Catalysis, 2006, 241, 304-311.	3.1	95
92	Oxidative conversion of propane over lithium-promoted magnesia catalyst I. Kinetics and mechanism. Journal of Catalysis, 2003, 218, 296-306.	3.1	94
93	Enhancing the catalytic activity of hydronium ions through constrained environments. Nature Communications, 2017, 8, 14113.	5.8	94
94	Rh(CAAC)-Catalyzed Arene Hydrogenation: Evidence for Nanocatalysis and Sterically Controlled Site-Selective Hydrogenation. ACS Catalysis, 2018, 8, 8441-8449.	5.5	94
95	Role of Amine Functionality for CO₂ Chemisorption on Silica. Journal of Physical Chemistry B, 2016, 120, 1988-1995.	1.2	92
96	Oxidative dehydrogenation of propane over niobia supported vanadium oxide catalysts. Catalysis Today, 1996, 28, 139-145.	2.2	91
97	Selective reduction of NO to N2 in the presence of oxygen over supported silver catalysts. Applied Catalysis B: Environmental, 2002, 37, 205-216.	10.8	90
98	Impact of the Oxygen Defects and the Hydrogen Concentration on the Surface of Tetragonal and Monoclinic ZrO₂ on the Reduction Rates of Stearic Acid on Ni/ZrO₂. Chemistry - A European Journal, 2015, 21, 2423-2434.	1.7	90
99	Confinement effects and acid strength in zeolites. Nature Communications, 2021, 12, 2630.	5.8	90
100	Selective Alkylation of Toluene over Basic Zeolites: Anin SituInfrared Spectroscopic Investigation. Journal of Catalysis, 1997, 168, 442-449.	3.1	89
101	Palladiumâ€Catalyzed Hydrolytic Cleavage of Aromatic Câˆ'O Bonds. Angewandte Chemie - International Edition, 2017, 56, 2110-2114.	7.2	89
102	Sinterâ€Resistant Platinum Catalyst Supported by Metalâ€"Organic Framework. Angewandte Chemie - International Edition, 2018, 57, 909-913.	7.2	88
103	Well-Defined Rhodiumâ€"Gallium Catalytic Sites in a Metalâ€"Organic Framework: Promoter-Controlled Selectivity in Alkyne Semihydrogenation to <i>E</i>-Alkenes. Journal of the American Chemical Society, 2018, 140, 15309-15318.	6.6	88
104	The role of the oxidic support on the deactivation of Pt catalysts during the CO2 reforming of methane. Catalysis Today, 1996, 29, 349-353.	2.2	87
105	Catalytic properties of postsynthesis phosphorus-modified H-ZSM5 zeolites. Journal of Catalysis, 1989, 115, 291-300.	3.1	86
106	Oxidative Activation ofn-Butane on Sulfated Zirconia. Journal of the American Chemical Society, 2005, 127, 16159-16166.	6.6	86
107	Electrocatalytic Hydrogenation of Phenol over Platinum and Rhodium: Unexpected Temperature Effects Resolved. ACS Catalysis, 2016, 6, 7466-7470.	5.5	86
108	Ni₃P as a high-performance catalytic phase for the hydrodeoxygenation of phenolic compounds. Green Chemistry, 2018, 20, 609-619.	4.6	86

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109	Copper-zirconia interfaces in UiO-66 enable selective catalytic hydrogenation of CO2 to methanol. Nature Communications, 2020, 11, 5849.	5.8	86
110	Solvent-determined mechanistic pathways in zeolite-H-BEA-catalysed phenol alkylation. Nature Catalysis, 2018, 1, 141-147.	16.1	85
111	Heterogeneous catalysts for hydroamination reactions: structureâ€“activity relationship. Journal of Catalysis, 2004, 221, 302-312.	3.1	84
112	Deoxygenation of Palmitic Acid on Unsupported Transition-Metal Phosphides. ACS Catalysis, 2017, 7, 6331-6341.	5.5	83
113	Influence of Hydronium Ions in Zeolites on Sorption. Angewandte Chemie - International Edition, 2019, 58, 3450-3455.	7.2	83
114	Effect of Broensted and Lewis sites in ferrierites on skeletal isomerization of n-butenes. Applied Catalysis A: General, 1999, 182, 297-308.	2.2	82
115	Decisive role of transport rate of products for zeolite para-selectivity: Effect of coke deposition and external surface silylation on activity and selectivity of HZSM-5 in alkylation of toluene. Zeolites, 1996, 17, 265-271.	0.9	81
116	Hydrogenation of crotonaldehyde over Pt based bimetallic catalysts. Journal of Molecular Catalysis A, 1997, 121, 69-80.	4.8	81
117	Design of stable Ni/ZrO2 catalysts for dry reforming of methane. Journal of Catalysis, 2017, 356, 147-156.	3.1	81
118	Acidâ€“base properties of aluminaâ€“magnesia mixed oxides. Part 4.â€"Infrared study of adsorption of carbon dioxide. Journal of the Chemical Society Faraday Transactions I, 1984, 80, 949.	1.0	79
119	Deactivation pathways in zeolite-catalyzed isobutane/butene alkylation. Journal of Catalysis, 2003, 220, 192-206.	3.1	79
120	Improving Stability of Zeolites in Aqueous Phase via Selective Removal of Structural Defects. Journal of the American Chemical Society, 2016, 138, 4408-4415.	6.6	79
121	Role of the ionic environment in enhancing the activity of reacting molecules in zeolite pores. Science, 2021, 372, 952-957.	6.0	79
122	n-Butane Isomerization over Acidic Mordenite. Journal of Catalysis, 1995, 155, 376-382.	3.1	78
123	Comparison of kinetics and reaction pathways for hydrodeoxygenation of C3 alcohols on Pt/Al2O3. Catalysis Today, 2012, 183, 3-9.	2.2	78
124	Direct production of naphthenes and paraffins from lignin. Chemical Communications, 2015, 51, 17580-17583.	2.2	78
125	Infrared Microscopic Study of Sorption and Diffusion of Toluene in ZSM-5. The Journal of Physical Chemistry, 1994, 98, 7436-7439.	2.9	77
126	Influence of alkali carbonates on benzyl phenyl ether cleavage pathways in superheated water. Applied Catalysis B: Environmental, 2010, 95, 71-77.	10.8	77

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127	Anharmonicity and Confinement in Zeolites: Structure, Spectroscopy, and Adsorption Free Energy of Ethanol in H-ZSM-5. Journal of Physical Chemistry C, 2016, 120, 7172-7182.	1.5	77
128	Labile sulfates as key components in active sulfated zirconia for n-butane isomerization at low temperatures. Journal of Catalysis, 2004, 227, 130-137.	3.1	76
129	Understanding the impact of aluminum oxide binder on Ni/HZSM-5 for phenol hydrodeoxygenation. Applied Catalysis B: Environmental, 2013, 132-133, 282-292.	10.8	76
130	Bulk and Î³â€‘Al2O3-supported Ni2P and MoP for hydrodeoxygenation of palmitic acid. Applied Catalysis B: Environmental, 2016, 180, 301-311.	10.8	76
131	Adsorption of hydrogen sulfide on ZSM 5 zeolites. The Journal of Physical Chemistry, 1992, 96, 2230-2235.	2.9	75
132	On the formation of the acid sites in lanthanum exchanged X zeolites used for isobutane/cis-2-butene alkylation. Microporous and Mesoporous Materials, 2005, 83, 309-318.	2.2	75
133	Comparison of zeolites LaX and LaY as catalysts for isobutane/2-butene alkylation. Applied Catalysis A: General, 2008, 336, 89-100.	2.2	74
134	Bridging Zirconia Nodes within a Metalâ€“Organic Framework via Catalytic Ni-Hydroxo Clusters to Form Heterobimetallic Nanowires. Journal of the American Chemical Society, 2017, 139, 10410-10418.	6.6	74
135	Integrated catalytic and electrocatalytic conversion of substituted phenols and diaryl ethers. Journal of Catalysis, 2016, 344, 263-272.	3.1	73
136	An in situ IR study of the NOx adsorption/reduction mechanism on modified Y zeolites. Physical Chemistry Chemical Physics, 2003, 5, 1897-1905.	1.3	72
137	Support effects in the aqueous phase reforming of glycerol over supported platinum catalysts. Applied Catalysis A: General, 2012, 431-432, 113-119.	2.2	71
138	Effect of Location and Distribution of Al Sites in ZSM-5 on the Formation of Cu-Oxo Clusters Active for Direct Conversion of Methane to Methanol. Topics in Catalysis, 2016, 59, 1554-1563.	1.3	71
139	Palladiumâ€Catalyzed Hydrolytic Cleavage of Aromatic Câˆ’O Bonds. Angewandte Chemie, 2017, 129, 2142-2146.	1.6	71
140	Tracking the Chemical Transformations at the BrÃ¸nsted Acid Site upon Water-Induced Deprotonation in a Zeolite Pore. Chemistry of Materials, 2017, 29, 9030-9042.	3.2	71
141	Acidic and basic sites of maim group mixed metal oxides. Materials Chemistry and Physics, 1988, 18, 577-593.	2.0	70
142	Acetic Acid Reforming over Rh Supported on La₂O₃/CeO₂â€“ZrO₂: Catalytic Performance and Reaction Pathway Analysis. ACS Catalysis, 2013, 3, 1919-1928.	5.5	70
143	Hydrogenation of tetralin on silicaâ€“alumina-supported Pt catalysts I. Physicochemical characterization of the catalytic materials. Journal of Catalysis, 2007, 251, 485-496.	3.1	69
144	Aqueous phase catalytic and electrocatalytic hydrogenation of phenol and benzaldehyde over platinum group metals. Journal of Catalysis, 2020, 382, 372-384.	3.1	68

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145	Roles of Cu^+ and Cu^0 sites in liquid-phase hydrogenation of esters on core-shell CuZnx@C catalysts. Applied Catalysis B: Environmental, 2020, 267, 118698.	10.8	68
146	Interaction of Methanol with Alkali Metal Exchanged Molecular Sieves. 1. IR Spectroscopic Study. Journal of Physical Chemistry B, 2000, 104, 8624-8630.	1.2	67
147	Mechanistic features of the ethane oxidative dehydrogenation by in situ FTIR spectroscopy over a MoO_3/Al_2O_3 catalyst. Applied Catalysis A: General, 2004, 264, 73-80.	2.2	67
148	Impact of Forming and Modification with Phosphoric Acid on the Acid Sites of HZSM-5. Journal of Physical Chemistry C, 2010, 114, 15763-15770.	1.5	67
149	In Situ IR spectroscopic study of the surface species during methylation of toluene over HZSM-5. Journal of Catalysis, 1991, 132, 244-252.	3.1	66
150	Liquid phase hydrogenation of crotonaldehyde over Pt/SiO_2 catalysts. Applied Catalysis A: General, 1997, 163, 111-122.	2.2	66
151	Sulfur-Tolerant Pt-Supported Zeolite Catalysts for Benzene Hydrogenation. Journal of Catalysis, 2001, 201, 60-69.	3.1	66
152	Coadsorption of toluene and methanol on HZSM-5 zeolites. The Journal of Physical Chemistry, 1991, 95, 3736-3740.	2.9	65
153	Formation of Solvent Cages around Organometallic Complexes in Thin Films of Supported Ionic Liquid. Journal of the American Chemical Society, 2006, 128, 13990-13991.	6.6	65
154	Catalytic routes and oxidation mechanisms in photoreforming of polyols. Journal of Catalysis, 2016, 344, 806-816.	3.1	65
155	Hydroxyl groups in phosphorus-modified HZSM-5. Applied Catalysis, 1989, 53, 299-312.	1.1	64
156	Title is missing!. Topics in Catalysis, 2000, 10, 295-305.	1.3	64
157	Interaction of Methanol with Alkali Metal Exchanged Molecular Sieves. 2. Density Functional Study. Journal of Physical Chemistry B, 2000, 104, 8614-8623.	1.2	63
158	Multitechnique Characterization of Coke Produced during Commercial Resid FCC Operation. Industrial & Engineering Chemistry Research, 2005, 44, 2069-2077.	1.8	63
159	Impact of Zeolite Aging in Hot Liquid Water on Activity for Acid-Catalyzed Dehydration of Alcohols. Journal of the American Chemical Society, 2015, 137, 10374-10382.	6.6	63
160	On the Enhanced Selectivity of HZSM-5 Modified by Chemical Liquid Deposition. Topics in Catalysis, 2003, 22, 101-106.	1.3	62
161	Methanol Usage in Toluene Methylation with Medium and Large Pore Zeolites. ACS Catalysis, 2013, 3, 817-825.	5.5	62
162	Tailoring mesoscopically structured H-ZSM5 zeolites for toluene methylation. Journal of Catalysis, 2014, 311, 271-280.	3.1	62

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163	The Nature of Hydrogen Adsorption on Platinum in the Aqueous Phase. Angewandte Chemie - International Edition, 2019, 58, 3527-3532.	7.2	62
164	Elementary Mechanistic Steps and the Influence of Process Variables in Isobutane Alkylation over H-BEA. Journal of Catalysis, 1998, 176, 192-203.	3.1	61
165	Activity and Selectivity Control in Reductive Amination of Butyraldehyde over Noble Metal Catalysts. Catalysis Letters, 2005, 104, 23-28.	1.4	61
166	Synthesis of highly active sulfated zirconia by sulfation with SO3. Journal of Catalysis, 2006, 238, 39-45.	3.1	61
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