Emiel Hensen

List of Publications by Year
in descending order

568 papers	34,581 citations	2544 96 h-index	7950 149 g-index
595 all docs	595 docs citations	595 times ranked	26469 citing authors

#	Article	IF	Citations
1	Engineering bunched Pt-Ni alloy nanocages for efficient oxygen reduction in practical fuel cells. Science, 2019, 366, 850-856.	12.6	1,005
2	Single-site trinuclear copper oxygen clusters in mordenite for selective conversion of methane to methanol. Nature Communications, 2015, 6, 7546.	12.8	623
3	Catalytic (de)hydrogenation promoted by non-precious metals â€" Co, Fe and Mn: recent advances in an emerging field. Chemical Society Reviews, 2018, 47, 1459-1483.	38.1	511
4	Highly Efficient and Robust Au/MgCuCr₂O₄ Catalyst for Gas-Phase Oxidation of Ethanol to Acetaldehyde. Journal of the American Chemical Society, 2013, 135, 14032-14035.	13.7	456
5	Strategies for the Direct Catalytic Valorization of Methane Using Heterogeneous Catalysis: Challenges and Opportunities. ACS Catalysis, 2016, 6, 2965-2981.	11.2	438
6	Recent developments in zeolite membranes for gas separation. Journal of Membrane Science, 2016, 499, 65-79.	8.2	435
7	Heterogeneous and homogeneous catalysis for the hydrogenation of carboxylic acid derivatives: history, advances and future directions. Chemical Society Reviews, 2015, 44, 3808-3833.	38.1	395
8	The Relation between Morphology and Hydrotreating Activity for Supported MoS2 Particles. Journal of Catalysis, 2001, 199, 224-235.	6.2	360
9	Why Clays Swell. Journal of Physical Chemistry B, 2002, 106, 12664-12667.	2.6	350
10	Catalytic Depolymerization of Lignin in Supercritical Ethanol. ChemSusChem, 2014, 7, 2276-2288.	6.8	313
11	Tuning Pt-CeO2 interactions by high-temperature vapor-phase synthesis for improved reducibility of lattice oxygen. Nature Communications, 2019, 10, 1358.	12.8	302
12	Evaluating the Stability of Co₂P Electrocatalysts in the Hydrogen Evolution Reaction for Both Acidic and Alkaline Electrolytes. ACS Energy Letters, 2018, 3, 1360-1365.	17.4	291
13	Boosting CO2 hydrogenation via size-dependent metalâ€"support interactions in cobalt/ceria-based catalysts. Nature Catalysis, 2020, 3, 526-533.	34.4	286
14	Highly Efficient Reversible Hydrogenation of Carbon Dioxide to Formates Using a Ruthenium PNPâ€Pincer Catalyst. ChemCatChem, 2014, 6, 1526-1530.	3.7	283
15	Complexity behind CO₂ Capture on NH₂-MIL-53(Al). Langmuir, 2011, 27, 3970-3976.	3.5	274
16	Understanding the Anomalous Alkane Selectivity of ZIFâ€7 in the Separation of Light Alkane/Alkene Mixtures. Chemistry - A European Journal, 2011, 17, 8832-8840.	3.3	274
17	Ethanol as capping agent and formaldehyde scavenger for efficient depolymerization of lignin to aromatics. Green Chemistry, 2015, 17, 4941-4950.	9.0	245
18	Interface dynamics of Pdâ€"CeO2 single-atom catalysts during CO oxidation. Nature Catalysis, 2021, 4, 469-478.	34.4	244

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19	Mechanism and microkinetics of the Fischerâ€“Tropsch reaction. Physical Chemistry Chemical Physics, 2013, 15, 17038.	2.8	233
20	Engineering of Transition Metal Catalysts Confined in Zeolites. Chemistry of Materials, 2018, 30, 3177-3198.	6.7	232
21	CO oxidation by Pd supported on CeO2(100) and CeO2(111) facets. Applied Catalysis B: Environmental, 2019, 243, 36-46.	20.2	231
22	Mechanism of BrÃ¸nsted acid-catalyzed conversion of carbohydrates. Journal of Catalysis, 2012, 295, 122-132.	6.2	221
23	Structureâ€“performance descriptors and the role of Lewis acidity in the methanol-to-propylene process. Nature Chemistry, 2018, 10, 804-812.	13.6	221
24	Stability and reactivity of copper oxo-clusters in ZSM-5 zeolite for selective methane oxidation to methanol. Journal of Catalysis, 2016, 338, 305-312.	6.2	217
25	Phosphotungstic Acid Encapsulated in Metalâ€“Organic Framework as Catalysts for Carbohydrate Dehydration to 5â€Hydroxymethylfurfural. ChemSusChem, 2011, 4, 59-64.	6.8	216
26	Structure and Reactivity of Zn-Modified ZSM-5 Zeolites: The Importance of Clustered Cationic Zn Complexes. ACS Catalysis, 2012, 2, 71-83.	11.2	214
27	The Optimally Performing Fischerâ€“Tropsch Catalyst. Angewandte Chemie - International Edition, 2014, 53, 12746-12750.	13.8	208
28	Atomically Dispersed Pdâ€“O Species on CeO₂(111) as Highly Active Sites for Low-Temperature CO Oxidation. ACS Catalysis, 2017, 7, 6887-6891.	11.2	208
29	Isolated Fe Sites in Metal Organic Frameworks Catalyze the Direct Conversion of Methane to Methanol. ACS Catalysis, 2018, 8, 5542-5548.	11.2	200
30	Effect of high-temperature treatment on Fe/ZSM-5 prepared by chemical vapor deposition of FeCl3I. Physicochemical characterization. Journal of Catalysis, 2004, 221, 560-574.	6.2	192
31	An in-situ IR study on the adsorption of CO2 and H2O on hydrotalcites. Journal of CO2 Utilization, 2018, 24, 228-239.	6.8	183
32	Ethanol dehydrogenation by gold catalysts: The effect of the gold particle size and the presence of oxygen. Applied Catalysis A: General, 2009, 361, 49-56.	4.3	174
33	On the deactivation of Mo/HZSM-5 in the methane dehydroaromatization reaction. Applied Catalysis B: Environmental, 2015, 176-177, 731-739.	20.2	174
34	Oxygen reduction reaction (ORR) activity and durability of carbon supported PtM (Co, Ni, Cu) alloys: Influence of particle size and non-noble metals. Applied Catalysis B: Environmental, 2012, 111-112, 515-526.	20.2	170
35	Hydrodeoxygenation of mono- and dimeric lignin model compounds on noble metal catalysts. Catalysis Today, 2014, 233, 83-91.	4.4	170
36	ZrO₂ Is Preferred over TiO₂ as Support for the Ru-Catalyzed Hydrogenation of Levulinic Acid to Î³-Valerolactone. ACS Catalysis, 2016, 6, 5462-5472.	11.2	169

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37	Nonâ€Pincerâ€Type Manganese Complexes as Efficient Catalysts for the Hydrogenation of Esters. Angewandte Chemie - International Edition, 2017, 56, 7531-7534.	13.8	169
38	Molecular Simulations of Swelling Clay Minerals. Journal of Physical Chemistry B, 2004, 108, 7586-7596.	2.6	168
39	Influence of particle size on the activity and stability in steam methane reforming of supported Rh nanoparticles. Journal of Catalysis, 2011, 280, 206-220.	6.2	166
40	Role of Cuâ€“Mgâ€“Al Mixed Oxide Catalysts in Lignin Depolymerization in Supercritical Ethanol. ACS Catalysis, 2015, 5, 7359-7370.	11.2	165
41	Aerobic Oxidation of 5â€(Hydroxymethyl)furfural Cyclic Acetal Enables Selective Furanâ€2,5â€dicarboxylic Acid Formation with CeO₂â€Supported Gold Catalyst. Angewandte Chemie - International Edition, 2018, 57, 8235-8239.	13.8	163
42	Methane Dehydroaromatization by Mo/HZSM-5: Mono- or Bifunctional Catalysis?. ACS Catalysis, 2017, 7, 520-529.	11.2	155
43	Hysteresis in Clay Swelling Induced by Hydrogen Bonding:â€‰ Accurate Prediction of Swelling States. Langmuir, 2006, 22, 1223-1234.	3.5	154
44	Selective liquid phase hydrogenation of furfural to furfuryl alcohol by Ru/Zr-MOFs. Journal of Molecular Catalysis A, 2015, 406, 58-64.	4.8	154
45	Reductive fractionation of woody biomass into lignin monomers and cellulose by tandem metal triflate and Pd/C catalysis. Green Chemistry, 2017, 19, 175-187.	9.0	154
46	Formation of acid sites in amorphous silica-alumina. Journal of Catalysis, 2010, 269, 201-218.	6.2	151
47	Glucose Activation by Transient Cr²⁺ Dimers. Angewandte Chemie - International Edition, 2010, 49, 2530-2534.	13.8	150
48	Influence of steaming on the acidity and the methanol conversion reaction of HZSM-5 zeolite. Journal of Catalysis, 2013, 307, 194-203.	6.2	149
49	SBA-15-supported nickel phosphide hydrotreating catalysts. Journal of Catalysis, 2008, 253, 119-131.	6.2	148
50	Stable Mo/HZSM-5 methane dehydroaromatization catalysts optimized for high-temperature calcination-regeneration. Journal of Catalysis, 2017, 346, 125-133.	6.2	147
51	Promotional effect of transition metal doping on the basicity and activity of calcined hydrotalcite catalysts for glycerol carbonate synthesis. Applied Catalysis B: Environmental, 2014, 144, 135-143.	20.2	146
52	Characterization and reactivity of Ga+ and GaO+ cations in zeolite ZSM-5. Journal of Catalysis, 2006, 239, 478-485.	6.2	145
53	Mesoporous SSZ-13 zeolite prepared by a dual-template method with improved performance in the methanol-to-olefins reaction. Journal of Catalysis, 2013, 298, 27-40.	6.2	144
54	High flux high-silica SSZ-13 membrane for CO₂separation. Journal of Materials Chemistry A, 2014, 2, 13083-13092.	10.3	142

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55	Highly Active and Recyclable Snâ€MWW Zeolite Catalyst for Sugar Conversion to Methyl Lactate and Lactic Acid. ChemSusChem, 2013, 6, 1352-1356.	6.8	140
56	The impact of Metalâ€"Ligand Cooperation in Hydrogenation of Carbon Dioxide Catalyzed by Ruthenium PNP Pincer. ACS Catalysis, 2013, 3, 2522-2526.	11.2	136
57	Exposed Surfaces on Shapeâ€Controlled Ceria Nanoparticles Revealed through ACâ€TEM and Waterâ€"Gas Shift Reactivity. ChemSusChem, 2013, 6, 1898-1906.	6.8	134
58	Enhanced Catalytic Oxidation by Hierarchically Structured TS-1 Zeolite. Journal of Physical Chemistry C, 2010, 114, 6553-6559.	3.1	133
59	Optimum Cu nanoparticle catalysts for CO2 hydrogenation towards methanol. Nano Energy, 2018, 43, 200-209.	16.0	133
60	Acidity Characterization of Amorphous Silicaâ€"Alumina. Journal of Physical Chemistry C, 2012, 116, 21416-21429.	3.1	129
61	Confined Carbon Mediating Dehydroaromatization of Methane over Mo/ZSMâ€5. Angewandte Chemie - International Edition, 2018, 57, 1016-1020.	13.8	128
62	On the activity of supported Au catalysts in the liquid phase hydrogenation of CO2 to formates. Journal of Catalysis, 2016, 343, 97-105.	6.2	126
63	A Linear Scaling Relation for CO Oxidation on CeO₂-Supported Pd. Journal of the American Chemical Society, 2018, 140, 4580-4587.	13.7	126
64	Synthesis of stable and low-CO ₂ selective Îµ-iron carbide Fischer-Tropsch catalysts. Science Advances, 2018, 4, eaau2947.	10.3	126
65	Chemistry of N2O decomposition on active sites with different nature: Effect of high-temperature treatment of Fe/ZSM-5. Journal of Catalysis, 2006, 238, 186-195.	6.2	125
66	First-Principles-Based Microkinetics Simulations of Synthesis Gas Conversion on a Stepped Rhodium Surface. ACS Catalysis, 2015, 5, 5453-5467.	11.2	124
67	Efficient Base-Metal NiMn/TiO₂ Catalyst for CO₂ Methanation. ACS Catalysis, 2019, 9, 7823-7839.	11.2	124
68	Understanding carbon dioxide activation and carbonâ€"carbon coupling over nickel. Nature Communications, 2019, 10, 5330.	12.8	124
69	Extraframework Feî—¸Alî—¸O species occluded in MFI zeolite as the active species in the oxidation of benzene to phenol with nitrous oxide. Journal of Catalysis, 2003, 220, 260-264.	6.2	122
70	The Mechanism of Glucose Isomerization to Fructose over Snâ€BEA Zeolite: A Periodic Density Functional Theory Study. ChemSusChem, 2013, 6, 1688-1696.	6.8	122
71	Direct NO and N2O decomposition and NO-assisted N2O decomposition over Cu-zeolites: Elucidating the influence of the CuCu distance on oxygen migration. Journal of Catalysis, 2007, 245, 358-368.	6.2	120
72	Mechanistic Aspects of the Waterâ€"Gas Shift Reaction on Isolated and Clustered Au Atoms on CeO₂(110): A Density Functional Theory Study. ACS Catalysis, 2014, 4, 1885-1892.	11.2	120

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73	Synergy between Lewis acid sites and hydroxyl groups for the isomerization of glucose to fructose over Sn-containing zeolites: a theoretical perspective. Catalysis Science and Technology, 2014, 4, 2241-2250.	4.1	117
74	Trimodal Porous Hierarchical SSZ-13 Zeolite with Improved Catalytic Performance in the Methanol-to-Olefins Reaction. ACS Catalysis, 2016, 6, 2163-2177.	11.2	116
75	Effect of high-temperature treatment on Fe/ZSM-5 prepared by chemical vapor deposition of FeCl3II. Nitrous oxide decomposition, selective oxidation of benzene to phenol, and selective reduction of nitric oxide by isobutane. Journal of Catalysis, 2004, 221, 575-583.	6.2	112
76	Dual template synthesis of a highly mesoporous SSZ-13 zeolite with improved stability in the methanol-to-olefins reaction. Chemical Communications, 2012, 48, 9492.	4.1	112
77	Mechanism of CO₂hydrogenation to formates by homogeneous Ru-PNP pincer catalyst: from a theoretical description to performance optimization. Catalysis Science and Technology, 2014, 4, 3474-3485.	4.1	112
78	Temperature-Dependent Kinetic Studies of the Chlorine Evolution Reaction over RuO₂(110) Model Electrodes. ACS Catalysis, 2017, 7, 2403-2411.	11.2	111
79	Stable Pd-Doped Ceria Structures for CH₄ Activation and CO Oxidation. ACS Catalysis, 2018, 8, 75-80.	11.2	111
80	A Tensileâ€Strained Ptâ€“Rh Singleâ€Atom Alloy Remarkably Boosts Ethanol Oxidation. Advanced Materials, 2021, 33, e2008508.	21.0	111
81	Defect Chemistry of Ceria Nanorods. Journal of Physical Chemistry C, 2014, 118, 4131-4142.	3.1	110
82	A model compound (methyl oleate, oleic acid, triolein) study of triglycerides hydrodeoxygenation over alumina-supported NiMo sulfide. Applied Catalysis B: Environmental, 2017, 201, 290-301.	20.2	110
83	Molecular Aspects of Glucose Dehydration by Chromium Chlorides in Ionic Liquids. Chemistry - A European Journal, 2011, 17, 5281-5288.	3.3	109
84	Catalytic Hydrogenation of CO₂ to Formates by a Lutidine-Derived Ruâ€“CNC Pincer Complex: Theoretical Insight into the Unrealized Potential. ACS Catalysis, 2015, 5, 1145-1154.	11.2	109
85	A hierarchical Fe/ZSM-5 zeolite with superior catalytic performance for benzene hydroxylation to phenol. Chemical Communications, 2009, , 7590.	4.1	106
86	The Effect of Support Interaction on the Sulfidability of Al2O3- and TiO2-Supported CoW and NiW Hydrodesulfurization Catalysts. Journal of Catalysis, 2001, 198, 151-163.	6.2	105
87	Nature and Location of Cationic Lanthanum Species in High Alumina Containing Faujasite Type Zeolites. Journal of Physical Chemistry C, 2011, 115, 21763-21776.	3.1	105
88	Synthesis of Snâ€Beta with Exclusive and High Framework Sn Content. ChemCatChem, 2015, 7, 1152-1160.	3.7	105
89	A Refinement on the Notion of Type I and II (Co)MoS Phases in Hydrotreating Catalysts. Catalysis Letters, 2002, 84, 59-67.	2.6	104
90	Lutidine-Derived Ru-CNC Hydrogenation Pincer Catalysts with Versatile Coordination Properties. ACS Catalysis, 2014, 4, 2667-2671.	11.2	104

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91	Pt-Re synergy in aqueous-phase reforming of glycerol and the waterâ€“gas shift reaction. Journal of Catalysis, 2014, 311, 88-101.	6.2	103
92	Effective Release of Lignin Fragments from Lignocellulose by Lewis Acid Metal Triflates in the Ligninâ€First Approach. ChemSusChem, 2016, 9, 3262-3267.	6.8	103
93	Adsorption isotherms of water in Liâ€“, Naâ€“, and Kâ€“montmorillonite by molecular simulation. Journal of Chemical Physics, 2001, 115, 3322-3329.	3.0	102
94	Structureâ€“Activity Correlations in Hydrodesulfurization Reactions over Ni-Promoted Mo_{<i>x</i>}W_(1â€“<i>x</i>)S₂/Al₂O₃ Catalysts. ACS Catalysis, 2015, 5, 7276-7287.	11.2	101
95	Theoretical Approach To Predict the Stability of Supported Single-Atom Catalysts. ACS Catalysis, 2019, 9, 3289-3297.	11.2	101
96	A comprehensive density functional theory study of ethane dehydrogenation over reduced extra-framework gallium species in ZSM-5 zeolite. Journal of Catalysis, 2006, 240, 73-84.	6.2	99
97	On two alternative mechanisms of ethane activation over ZSM-5 zeolite modified by Zn2+ and Ga1+ cations. Physical Chemistry Chemical Physics, 2005, 7, 3088.	2.8	98
98	Influence of Extraframework Aluminum on the BrÃ¸nsted Acidity and Catalytic Reactivity of Faujasite Zeolite. ChemCatChem, 2013, 5, 452-466.	3.7	98
99	Structure, Stability, and Lewis Acidity of Mono and Double Ti, Zr, and Sn Framework Substitutions in BEA Zeolites: A Periodic Density Functional Theory Study. Journal of Physical Chemistry C, 2013, 117, 3976-3986.	3.1	98
100	Influence of the Si/Al ratio on the separation properties of SSZ-13 zeolite membranes. Journal of Membrane Science, 2015, 484, 140-145.	8.2	98
101	Synthesis of glycerol carbonate by transesterification of glycerol with dimethyl carbonate over MgAl mixed oxide catalysts. Applied Catalysis A: General, 2013, 467, 124-131.	4.3	97
102	Stable Fe/ZSM-5 Nanosheet Zeolite Catalysts for the Oxidation of Benzene to Phenol. ACS Catalysis, 2017, 7, 2709-2719.	11.2	96
103	Ex Situ and Operando Studies on the Role of Copper in Cu-Promoted SiO₂â€“MgO Catalysts for the Lebedev Ethanol-to-Butadiene Process. ACS Catalysis, 2015, 5, 6005-6015.	11.2	95
104	Selective Coke Combustion by Oxygen Pulsing During Mo/ZSMâ€5â€Catalyzed Methane Dehydroaromatization. Angewandte Chemie - International Edition, 2016, 55, 15086-15090.	13.8	94
105	Mechanism of Cobalt-Catalyzed CO Hydrogenation: 2. Fischerâ€“Tropsch Synthesis. ACS Catalysis, 2017, 7, 8061-8071.	11.2	94
106	Supported Rhodium Oxide Nanoparticles as Highly Active CO Oxidation Catalysts. Angewandte Chemie - International Edition, 2011, 50, 5306-5310.	13.8	93
107	Efficient Tandem Synthesis of Methyl Esters and Imines by Using Versatile Hydrotalciteâ€Supported Gold Nanoparticles. Chemistry - A European Journal, 2012, 18, 12122-12129.	3.3	93
108	Nature and Catalytic Role of Extraframework Aluminum in Faujasite Zeolite: A Theoretical Perspective. ACS Catalysis, 2015, 5, 7024-7033.	11.2	92

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109	Mechanism and Nature of Active Sites for Methanol Synthesis from CO/CO₂ on Cu/CeO₂. ACS Catalysis, 2020, 10, 11532-11544.	11.2	92
110	N2O Decomposition over Fe/ZSM-5: Effect of High-Temperature Calcination and Steaming. Catalysis Letters, 2002, 81, 205-212.	2.6	90
111	Aerobic oxidation of alcohols over hydrotalcite-supported gold nanoparticles: the promotional effect of transition metal cations. Chemical Communications, 2011, 47, 11540.	4.1	90
112	Dehydration of Different Ketoses and Aldoses to 5â€Hydroxymethylfurfural. ChemSusChem, 2013, 6, 1681-1687.	6.8	90
113	Bis-N-heterocyclic Carbene Aminopincer Ligands Enable High Activity in Ru-Catalyzed Ester Hydrogenation. Journal of the American Chemical Society, 2015, 137, 7620-7623.	13.7	90
114	Highly Active and Stable CH₄ Oxidation by Substitution of Ce⁴⁺ by Two Pd²⁺ Ions in CeO₂(111). ACS Catalysis, 2018, 8, 6552-6559.	11.2	90
115	The Origin of High Activity of Amorphous MoS₂ in the Hydrogen Evolution Reaction. ChemSusChem, 2019, 12, 4383-4389.	6.8	90
116	Cracking of n-heptane over BrÃ¸nsted acid sites and Lewis acid Ga sites in ZSM-5 zeolite. Microporous and Mesoporous Materials, 2008, 110, 279-291.	4.4	89
117	Dehydrogenation of Light Alkanes over Isolated Gallyl Ions in Ga/ZSM-5 Zeolites. Journal of Physical Chemistry C, 2007, 111, 13068-13075.	3.1	87
118	Catalytic performance of sheet-like Fe/ZSM-5 zeolites for the selective oxidation of benzene with nitrous oxide. Journal of Catalysis, 2013, 299, 81-89.	6.2	87
119	Lewis-acid catalyzed depolymerization of Protobind lignin in supercritical water and ethanol. Catalysis Today, 2016, 259, 460-466.	4.4	87
120	Particle Size and Crystal Phase Effects in Fischer-Tropsch Catalysts. Engineering, 2017, 3, 467-476.	6.7	87
121	One-Step Synthesis of Hierarchical ZSM-5 Using Cetyltrimethylammonium as Mesoporogen and Structure-Directing Agent. Chemistry of Materials, 2017, 29, 4091-4096.	6.7	86
122	Reactivity, Selectivity, and Stability of Zeoliteâ€Based Catalysts for Methane Dehydroaromatization. Advanced Materials, 2020, 32, e2002565.	21.0	86
123	Periodic Trends in Hydrotreating Catalysis: Thiophene Hydrodesulfurization over Carbon-Supported 4d Transition Metal Sulfides. Journal of Catalysis, 2000, 192, 98-107.	6.2	85
124	Insight into the formation of the active phases in supported NiW hydrotreating catalysts. Applied Catalysis A: General, 2007, 322, 16-32.	4.3	85
125	Simultaneous NO_{<i>x</i>} and Particulate Matter Removal from Diesel Exhaust by Hierarchical Fe-Doped Ceâ€"Zr Oxide. ACS Catalysis, 2017, 7, 3883-3892.	11.2	85
126	Catalytic Depolymerization of Lignin and Woody Biomass in Supercritical Ethanol: Influence of Reaction Temperature and Feedstock. ACS Sustainable Chemistry and Engineering, 2017, 5, 10864-10874.	6.7	84

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127	Role of Adsorbed Water on Charge Carrier Dynamics in Photoexcited TiO₂. Journal of Physical Chemistry C, 2017, 121, 7514-7524.	3.1	82
128	Selective Production of Biobased Phenol from Lignocellulose-Derived Alkylmethoxyphenols. ACS Catalysis, 2018, 8, 11184-11190.	11.2	82
129	Catalytic Conversion of Lignin in Woody Biomass into Phenolic Monomers in Methanol/Water Mixtures without External Hydrogen. ACS Sustainable Chemistry and Engineering, 2019, 7, 13764-13773.	6.7	82
130	Structure and Evolution of Confined Carbon Species during Methane Dehydroaromatization over Mo/ZSM-5. ACS Catalysis, 2018, 8, 8459-8467.	11.2	79
131	Niâ€“In Synergy in CO₂ Hydrogenation to Methanol. ACS Catalysis, 2021, 11, 11371-11384.	11.2	79
132	Waterâ€Promoted Hydrocarbon Activation Catalyzed by Binuclear Gallium Sites in ZSMâ€5 Zeolite. Angewandte Chemie - International Edition, 2007, 46, 7273-7276.	13.8	78
133	Increased activity in the oxygen evolution reaction by Fe⁴⁺-induced hole states in perovskite La_{1âˆ’x}Sr_xFeO₃. Journal of Materials Chemistry A, 2020, 8, 4407-4415.	10.3	78
134	Ni³⁺-Induced Hole States Enhance the Oxygen Evolution Reaction Activity of Ni_{<i>x</i>}Co_{3â€“<i>x</i>}O₄ Electrocatalysts. Chemistry of Materials, 2019, 31, 7618-7625.	6.7	76
135	Stability of Extraframework Iron-Containing Complexes in ZSM-5 Zeolite. Journal of Physical Chemistry C, 2013, 117, 413-426.	3.1	75
136	Hierarchically structured Fe/ZSM-5 as catalysts for the oxidation of benzene to phenol. Microporous and Mesoporous Materials, 2011, 145, 172-181.	4.4	74
137	Scaling Relations for Acidity and Reactivity of Zeolites. Journal of Physical Chemistry C, 2017, 121, 23520-23530.	3.1	74
138	Electronic Structure of the [Cu₃(Î¼-O)₃]²⁺ Cluster in Mordenite Zeolite and Its Effects on the Methane to Methanol Oxidation. Journal of Physical Chemistry C, 2017, 121, 22295-22302.	3.1	74
139	Coupling organosolv fractionation and reductive depolymerization of woody biomass in a two-step catalytic process. Green Chemistry, 2018, 20, 2308-2319.	9.0	74
140	Hydrodeoxygenation of guaiacol over Ni2P/SiO2â€“reaction mechanism and catalyst deactivation. Applied Catalysis A: General, 2018, 550, 57-66.	4.3	74
141	In situ Ga K edge XANES study of the activation of Ga/ZSM-5 prepared by chemical vapor deposition of trimethylgallium. Catalysis Letters, 2005, 101, 79-85.	2.6	73
142	Gold Stabilized by Nanostructured Ceria Supports: Nature of the Active Sites and Catalytic Performance. Topics in Catalysis, 2011, 54, 424-438.	2.8	73
143	Self-organization of extraframework cations in zeolites. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 2070-2086.	2.1	73
144	Influence of sulfiding agent and pressure on structure and performance of CoMo/Al2O3 hydrodesulfurization catalysts. Journal of Catalysis, 2016, 342, 27-39.	6.2	73

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145	Flame Synthesis of Cu/ZnOâ€“CeO₂ Catalysts: Synergistic Metalâ€“Support Interactions Promote CH₃OH Selectivity in CO₂ Hydrogenation. ACS Catalysis, 2021, 11, 4880-4892.	11.2	73
146	Cu2O photoelectrodes for solar water splitting: Tuning photoelectrochemical performance by controlled faceting. Solar Energy Materials and Solar Cells, 2015, 141, 178-186.	6.2	72
147	Relationship between acidity and catalytic reactivity of faujasite zeolite: A periodic DFT study. Journal of Catalysis, 2016, 344, 570-577.	6.2	72
148	Support effects in the aqueous phase reforming of glycerol over supported platinum catalysts. Applied Catalysis A: General, 2012, 431-432, 113-119.	4.3	71
149	Grand challenges for catalysis in the Science and Technology Roadmap on Catalysis for Europe: moving ahead for a sustainable future. Catalysis Science and Technology, 2017, 7, 5182-5194.	4.1	71
150	Aqueous phase reforming of glycerol over Re-promoted Pt and Rh catalysts. Green Chemistry, 2014, 16, 853-863.	9.0	70
151	The effect of organic additives and phosphoric acid on sulfidation and activity of (Co)Mo/Al2O3 hydrodesulfurization catalysts. Journal of Catalysis, 2017, 351, 95-106.	6.2	70
152	Ni-Mn catalysts on silica-modified alumina for CO2 methanation. Journal of Catalysis, 2020, 382, 358-371.	6.2	70
153	Aromatization of ethylene over zeolite-based catalysts. Catalysis Science and Technology, 2020, 10, 2774-2785.	4.1	70
154	Effect of Aluminum on the Nature of the Iron Species in Fe-SBA-15. Journal of Physical Chemistry B, 2006, 110, 26114-26121.	2.6	69
155	Stability and reactivity of active sites for direct benzene oxidation to phenol in Fe/ZSM-5: A comprehensive periodic DFT study. Journal of Catalysis, 2011, 284, 194-206.	6.2	69
156	BrÃ¸nsted acidity of Al/SBA-15. Microporous and Mesoporous Materials, 2012, 151, 34-43.	4.4	69
157	Highâ€Efficiency InPâ€Based Photocathode for Hydrogen Production by Interface Energetics Design and Photon Management. Advanced Functional Materials, 2016, 26, 679-686.	14.9	69
158	Selective production of mono-aromatics from lignocellulose over Pd/C catalyst: the influence of acid co-catalysts. Faraday Discussions, 2017, 202, 141-156.	3.2	69
159	N-formyl-stabilizing quasi-catalytic species afford rapid and selective solvent-free amination of biomass-derived feedstocks. Nature Communications, 2019, 10, 699.	12.8	69
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