Enrique Iglesia

List of Publications by Year
in descending order

317 papers	33,689 citations	1980 101 h-index	4628 170 g-index
334 all docs	334 docs citations	334 times ranked	17035 citing authors

#	Article	IF	Citations
1	Design, synthesis, and use of cobalt-based Fischer-Tropsch synthesis catalysts. Applied Catalysis A: General, 1997, 161, 59-78.	2.2	1,324
2	Structure and Surface and Catalytic Properties of Mg-Al Basic Oxides. Journal of Catalysis, 1998, 178, 499-510.	3.1	1,036
3	Isotopic and kinetic assessment of the mechanism of reactions of CH4 with CO2 or H2O to form synthesis gas and carbon on nickel catalysts. Journal of Catalysis, 2004, 224, 370-383.	3.1	799
4	Structure and Electronic Properties of Solid Acids Based on Tungsten Oxide Nanostructures. Journal of Physical Chemistry B, 1999, 103, 630-640.	1.2	627
5	Structure and Catalytic Properties of Supported Vanadium Oxides: Support Effects on Oxidative Dehydrogenation Reactions. Journal of Catalysis, 1999, 181, 205-216.	3.1	573
6	Fischer-Tropsch synthesis on cobalt and ruthenium. Metal dispersion and support effects on reaction rate and selectivity. Journal of Catalysis, 1992, 137, 212-224.	3.1	506
7	CO activation pathways and the mechanism of Fischerâ€“Tropsch synthesis. Journal of Catalysis, 2010, 272, 287-297.	3.1	487
8	Structure and Reactivity of PdOx/ZrO2Catalysts for Methane Oxidation at Low Temperatures. Journal of Catalysis, 1998, 179, 431-442.	3.1	455
9	Chemisorption of CO and Mechanism of CO Oxidation on Supported Platinum Nanoclusters. Journal of the American Chemical Society, 2011, 133, 4498-4517.	6.6	448
10	Structural and Catalytic Characterization of Solid Acids Based on Zirconia Modified by Tungsten Oxide. Journal of Catalysis, 1999, 181, 57-72.	3.1	424
11	Bimetallic Synergy in Cobalt Ruthenium Fischer-Tropsch Synthesis Catalysts. Journal of Catalysis, 1993, 143, 345-368.	3.1	383
12	Structural requirements and reaction pathways in methane activation and chemical conversion catalyzed by rhodium. Journal of Catalysis, 2004, 225, 116-127.	3.1	368
13	Structure and Density of Active Zn Species in Zn/H-ZSM5 Propane Aromatization Catalysts. Journal of Catalysis, 1998, 179, 192-202.	3.1	366
14	Mechanism and Site Requirements for Activation and Chemical Conversion of Methane on Supported Pt Clusters and Turnover Rate Comparisons among Noble Metals. Journal of Physical Chemistry B, 2004, 108, 4094-4103.	1.2	364
15	Selective Carbonylation of Dimethyl Ether to Methyl Acetate Catalyzed by Acidic Zeolites. Angewandte Chemie - International Edition, 2006, 45, 1617-1620.	7.2	345
16	Promoted Iron-Based Catalysts for the Fischerâ€“Tropsch Synthesis: Design, Synthesis, Site Densities, and Catalytic Properties. Journal of Catalysis, 2002, 206, 202-217.	3.1	332
17	Transport-enhanced $alpha;-olefin readsorption pathways in Ru-catalyzed hydrocarbon synthesis. Journal of Catalysis, 1991, 129, 238-256.	3.1	313
18	Isomerization of Alkanes on Sulfated Zirconia: Promotion by Pt and by Adamantyl Hydride Transfer Species. Journal of Catalysis, 1993, 144, 238-253.	3.1	303

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19	Structure and Density of Mo and Acid Sites in Mo-Exchanged H-ZSM5 Catalysts for Nonoxidative Methane Conversion. Journal of Physical Chemistry B, 1999, 103, 5787-5796.	1.2	303
20	Specificity of Sites within Eight-Membered Ring Zeolite Channels for Carbonylation of Methyls to Acetyls. Journal of the American Chemical Society, 2007, 129, 4919-4924.	6.6	302
21	Mercaptosilane-Assisted Synthesis of Metal Clusters within Zeolites and Catalytic Consequences of Encapsulation. Journal of the American Chemical Society, 2010, 132, 9129-9137.	6.6	301
22	Effect of Catalyst Structure on Oxidative Dehydrogenation of Ethane and Propane on Alumina-Supported Vanadia. Journal of Catalysis, 2002, 208, 139-149.	3.1	298
23	Isotopic Tracer and Kinetic Studies of Oxidative Dehydrogenation Pathways on Vanadium Oxide Catalysts. Journal of Catalysis, 1999, 186, 325-333.	3.1	295
24	Formic Acid Dehydrogenation on Auâ€Based Catalysts at Nearâ€Ambient Temperatures. Angewandte Chemie - International Edition, 2009, 48, 4800-4803.	7.2	292
25	Catalytic Consequences of Spatial Constraints and Acid Site Location for Monomolecular Alkane Activation on Zeolites. Journal of the American Chemical Society, 2009, 131, 1958-1971.	6.6	277
26	Kinetics and Mechanism of Oxidative Dehydrogenation of Propane on Vanadium, Molybdenum, and Tungsten Oxides. Journal of Physical Chemistry B, 2000, 104, 1292-1299.	1.2	276
27	Title is missing!. Catalysis Letters, 2001, 77, 197-205.	1.4	271
28	Structure and properties of vanadium oxide-zirconia catalysts for propane oxidative dehydrogenation. Journal of Catalysis, 1998, 177, 343-351.	3.1	267
29	Structure and Properties of Oxidative Dehydrogenation Catalysts Based on MoO3/Al2O3. Journal of Catalysis, 2001, 198, 232-242.	3.1	265
30	Structure and function of metal cations in light alkane reactions catalyzed by modified H-ZSM5. Catalysis Today, 1996, 31, 207-231.	2.2	264
31	Selectivity Control and Catalyst Design in the Fischer-Tropsch Synthesis: Sites, Pellets, and Reactors. Advances in Catalysis, 1993, 39, 221-302.	0.1	263
32	A Link between Reactivity and Local Structure in Acid Catalysis on Zeolites. Accounts of Chemical Research, 2008, 41, 559-567.	7.6	257
33	Consequences of Metalâ€“Oxide Interconversion for Câ€“H Bond Activation during CH₄ Reactions on Pd Catalysts. Journal of the American Chemical Society, 2013, 135, 15425-15442.	6.6	256
34	The Relationship between the Electronic and Redox Properties of Dispersed Metal Oxides and Their Turnover Rates in Oxidative Dehydrogenation Reactions. Journal of Catalysis, 2002, 209, 35-42.	3.1	255
35	Genesis of BrÃ¸nsted Acid Sites during Dehydration of 2-Butanol on Tungsten Oxide Catalysts. Journal of Catalysis, 2002, 205, 44-57.	3.1	247
36	Synthesis and Catalytic Properties of Metal Clusters Encapsulated within Small-Pore (SOD, GIS, ANA) Zeolites. Journal of the American Chemical Society, 2012, 134, 17688-17695.	6.6	245

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37	Methane Conversion to Aromatics on Mo/H-ZSM5:Â Structure of Molybdenum Species in Working Catalysts. Journal of Physical Chemistry B, 2001, 105, 506-513.	1.2	242
38	The catalytic diversity of zeolites: confinement and solvation effects within voids of molecular dimensions. Chemical Communications, 2013, 49, 3491.	2.2	219
39	Acid strength and solvation in catalysis by MFI zeolites and effects of the identity, concentration and location of framework heteroatoms. Journal of Catalysis, 2014, 312, 58-68.	3.1	216
40	Encapsulation of Metal Clusters within MFI via Interzeolite Transformations and Direct Hydrothermal Syntheses and Catalytic Consequences of Their Confinement. Journal of the American Chemical Society, 2014, 136, 15280-15290.	6.6	211
41	The Strength of BrÃ¸nsted Acid Sites in Microporous Aluminosilicates. ACS Catalysis, 2015, 5, 5741-5755.	5.5	209
42	CO Chemisorption and Dissociation at High Coverages during CO Hydrogenation on Ru Catalysts. Journal of the American Chemical Society, 2013, 135, 6107-6121.	6.6	204
43	Solid acid catalysts based on supported tungsten oxides. Topics in Catalysis, 1998, 6, 87-99.	1.3	199
44	The Roles of Entropy and Enthalpy in Stabilizing Ion-Pairs at Transition States in Zeolite Acid Catalysis. Accounts of Chemical Research, 2012, 45, 229-238.	7.6	197
45	Selective isomerization of alkanes on supported tungsten oxide acids. Studies in Surface Science and Catalysis, 1996, 101, 533-542.	1.5	196
46	The effects of diffusion mechanism and void structure on transport rates and tortuosity factors in complex porous structures. Chemical Engineering Science, 2004, 59, 2947-2960.	1.9	189
47	Reaction Pathways and Rate-Determining Steps in Reactions of Alkanes on H-ZSM5 and Zn/H-ZSM5 Catalysts. Journal of Catalysis, 1999, 182, 117-128.	3.1	188
48	Reactivity of Chemisorbed Oxygen Atoms and Their Catalytic Consequences during CH₄â€“O₂ Catalysis on Supported Pt Clusters. Journal of the American Chemical Society, 2011, 133, 15958-15978.	6.6	184
49	Selective Oxidation of Methanol and Ethanol on Supported Ruthenium Oxide Clusters at Low Temperaturesâ€. Journal of Physical Chemistry B, 2005, 109, 2155-2163.	1.2	183
50	Raman and X-Ray Absorption Studies of Mo Species in Mo/H-ZSM5 Catalysts for Non-Oxidative CH4 Reactions. Journal of Catalysis, 2000, 191, 373-383.	3.1	181
51	The Effects of Silanation of External Acid Sites on the Structure and Catalytic Behavior of Mo/Hâ€“ZSM5. Journal of Catalysis, 2002, 206, 14-22.	3.1	181
52	Effects of Support Composition and Pretreatment Conditions on the Structure of Vanadia Dispersed on SiO2, Al2O3, TiO2, ZrO2, and HfO2. Journal of Physical Chemistry B, 2000, 104, 1516-1528.	1.2	180
53	Catalytic consequences of acid strength in the conversion of methanol to dimethyl ether. Journal of Catalysis, 2011, 278, 78-93.	3.1	178
54	Reaction Pathways and Site Requirements for the Activation and Chemical Conversion of Methane on Ruâ^'Based Catalysts. Journal of Physical Chemistry B, 2004, 108, 7253-7262.	1.2	173

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55	Reactions of neopentane, methylcyclohexane, and 3,3-dimethylpentane on tungsten carbides: The effect of surface oxygen on reaction pathways. Journal of Catalysis, 1991, 130, 86-105.	3.1	163
56	Structure and Properties of Zirconia-Supported Molybdenum Oxide Catalysts for Oxidative Dehydrogenation of Propane. Journal of Catalysis, 2000, 189, 421-430.	3.1	163
57	Support effects on BrÃ¸nsted acid site densities and alcohol dehydration turnover rates on tungsten oxide domains. Journal of Catalysis, 2004, 227, 479-491.	3.1	161
58	Synthesis of Zeolites via Interzeolite Transformations without Organic Structure-Directing Agents. Chemistry of Materials, 2015, 27, 2056-2066.	3.2	159
59	Kinetic coupling and hydrogen surface fugacities in heterogeneous catalysis: I. Alkane reactions on Te/NaX, H-ZSM5, and Ga/H-ZSM5. Journal of Catalysis, 1992, 134, 549-571.	3.1	157
60	Kinetic Isotopic Effects in Oxidative Dehydrogenation of Propane on Vanadium Oxide Catalysts. Journal of Catalysis, 2000, 192, 197-203.	3.1	152
61	Bifunctional reactions of alkanes on tungsten carbides modified by chemisorbed oxygen. Journal of Catalysis, 1991, 131, 523-544.	3.1	149
62	Structure and Site Evolution of Iron Oxide Catalyst Precursors during the Fischerâˆ'Tropsch Synthesis. Journal of Physical Chemistry B, 2001, 105, 5743-5750.	1.2	149
63	Isotopic and Chemical Titration of Acid Sites in Tungsten Oxide Domains Supported on Zirconia. Journal of Physical Chemistry B, 2001, 105, 1320-1330.	1.2	148
64	Control of Metal Dispersion and Structure by Changes in the Solid-State Chemistry of Supported Cobalt Fischerâ€“Tropsch Catalysts. Topics in Catalysis, 2003, 26, 101-109.	1.3	146
65	An Investigation of the Effects of Water on Rate and Selectivity for the Fischerâ€“Tropsch Synthesis on Cobalt-Based Catalysts. Journal of Catalysis, 2002, 211, 422-433.	3.1	144
66	Genesis of methane activation sites in Mo-exchanged Hâ€“ZSM-5 catalysts. Microporous and Mesoporous Materials, 2000, 35-36, 495-509.	2.2	142
67	Selective One-Step Synthesis of Dimethoxymethane via Methanol or Dimethyl Ether Oxidation on H3+nVnMo12-nPO40Keggin Structures. Journal of Physical Chemistry B, 2003, 107, 10840-10847.	1.2	142
68	Mechanistic Consequences of Composition in Acid Catalysis by Polyoxometalate Keggin Clusters. Journal of the American Chemical Society, 2008, 130, 10369-10379.	6.6	141
69	Consequences of Acid Strength for Isomerization and Elimination Catalysis on Solid Acids. Journal of the American Chemical Society, 2009, 131, 6554-6565.	6.6	138
70	Mechanistic Role of Water on the Rate and Selectivity of Fischerâ€“Tropsch Synthesis on Ruthenium Catalysts. Angewandte Chemie - International Edition, 2013, 52, 12273-12278.	7.2	138
71	Bifunctional Condensation Reactions of Alcohols on Basic Oxides Modified by Copper and Potassium. Journal of Catalysis, 1998, 176, 155-172.	3.1	137
72	Mechanistic Aspects and Reaction Pathways for Oxidative Coupling of Methane on Mn/Na₂WO₄/SiO₂ Catalysts. Journal of Physical Chemistry C, 2009, 113, 10131-10145.	1.5	134

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73	Primary and secondary reaction pathways in ruthenium-catalyzed hydrocarbon synthesis. The Journal of Physical Chemistry, 1991, 95, 7795-7804.	2.9	133
74	Spectroscopic and chemical characterization of active and inactive Cu species in NO decomposition catalysts based on Cu-ZSM5. Physical Chemistry Chemical Physics, 2002, 4, 4590-4601.	1.3	133
75	Synthesis and hydrogen permeation properties of membranes based on dense SrCe0.95Yb0.05O3â^'Î± thin films. Solid State Ionics, 2002, 148, 71-81.	1.3	132
76	Effects of molybdena on the catalytic properties of vanadia domains supported on alumina for oxidative dehydrogenation of propane. Journal of Catalysis, 2004, 221, 491-499.	3.1	131
77	Synthesis, characterization, and catalytic properties of clean and oxygen-modified tungsten carbides. Catalysis Today, 1992, 15, 307-337.	2.2	130
78	Synthesis, characterization, and catalytic function of novel highly dispersed tungsten oxide catalysts on mesoporous silica. Journal of Catalysis, 2006, 239, 200-211.	3.1	130
79	Characterization and comparison of pore landscapes in crystalline porous materials. Journal of Molecular Graphics and Modelling, 2013, 44, 208-219.	1.3	130
80	Solvation and acid strength effects on catalysis by faujasite zeolites. Journal of Catalysis, 2012, 286, 214-223.	3.1	127
81	Kinetic, Spectroscopic, and Theoretical Assessment of Associative and Dissociative Methanol Dehydration Routes in Zeolites. Angewandte Chemie - International Edition, 2014, 53, 12177-12181.	7.2	122
82	Hydrothermal synthesis of LTA-encapsulated metal clusters and consequences for catalyst stability, reactivity, and selectivity. Journal of Catalysis, 2014, 311, 458-468.	3.1	120
83	Structural Characterization of Molybdenum Oxide Supported on Zirconia. Journal of Physical Chemistry B, 2000, 104, 10059-10068.	1.2	116
84	Effects of Temperature on the Raman Spectra and Dispersed Oxides. Journal of Physical Chemistry B, 2001, 105, 5144-5152.	1.2	115
85	Spectroscopic and Transient Kinetic Studies of Site Requirements in Iron-Catalyzed Fischerâ^'Tropsch Synthesis. Journal of Physical Chemistry B, 2002, 106, 85-91.	1.2	115
86	Implications of Transition State Confinement within Small Voids for Acid Catalysis. Journal of Physical Chemistry C, 2014, 118, 17787-17800.	1.5	115
87	Ethane Oxidative Dehydrogenation Pathways on Vanadium Oxide Catalysts. Journal of Physical Chemistry B, 2002, 106, 5421-5427.	1.2	114
88	Transition-State Enthalpy and Entropy Effects on Reactivity and Selectivity in Hydrogenolysis of <i>n</i>-Alkanes. Journal of the American Chemical Society, 2013, 135, 18586-18599.	6.6	113
89	Water-Assisted Tetragonal-to-Monoclinic Phase Transformation of ZrO2at Low Temperatures. Chemistry of Materials, 2000, 12, 2442-2447.	3.2	112
90	Entropy considerations in monomolecular cracking of alkanes on acidic zeolites. Journal of Catalysis, 2008, 253, 221-224.	3.1	112

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91	Mechanistic interpretation of CO oxidation turnover rates on supported Au clusters. Journal of Catalysis, 2012, 285, 92-102.	3.1	111
92	Correlating Acid Properties and Catalytic Function: A First-Principles Analysis of Alcohol Dehydration Pathways on Polyoxometalates. Journal of Physical Chemistry C, 2009, 113, 1872-1885.	1.5	110
93	Kinetically Relevant Steps and H₂/D₂Isotope Effects in Fischerâˆ’Tropsch Synthesis on Fe and Co Catalysts. Journal of Physical Chemistry C, 2010, 114, 19761-19770.	1.5	110
94	Title is missing!. Catalysis Letters, 2002, 80, 77-86.	1.4	109
95	Catalytic Consequences of Composition in Polyoxometalate Clusters with Keggin Structure. Angewandte Chemie - International Edition, 2007, 46, 7864-7868.	7.2	108
96	Dynamics and Thermodynamics of Pdâ€"PdO Phase Transitions: Effects of Pd Cluster Size and Kinetic Implications for Catalytic Methane Combustion. Journal of Physical Chemistry C, 2016, 120, 1446-1460.	1.5	107
97	Catalytic activation and reforming of methane on supported palladium clusters. Journal of Catalysis, 2010, 274, 52-63.	3.1	106
98	An Investigation of the Effects of Water on Rate and Selectivity for the Fischerâ€"Tropsch Synthesis on Cobalt-Based Catalysts. Journal of Catalysis, 2002, 211, 422-433.	3.1	105
99	Structural and Mechanistic Requirements for Methane Activation and Chemical Conversion on Supported Iridium Clusters. Angewandte Chemie - International Edition, 2004, 43, 3685-3688.	7.2	105
100	Effects of Partial Confinement on the Specificity of Monomolecular Alkane Reactions for Acid Sites in Side Pockets of Mordenite. Angewandte Chemie - International Edition, 2010, 49, 808-811.	7.2	105
101	Mechanism and Site Requirements for Ethanol Oxidation on Vanadium Oxide Domains. Journal of Physical Chemistry C, 2009, 113, 2830-2836.	1.5	104
102	Effects of Void Environment and Acid Strength on Alkene Oligomerization Selectivity. ACS Catalysis, 2016, 6, 7059-7070.	5.5	104
103	Isomerization and Î²-scission reactions of alkanes on bifunctional metal-acid catalysts: Consequences of confinement and diffusional constraints on reactivity and selectivity. Journal of Catalysis, 2018, 368, 389-410.	3.1	104
104	Catalytic reaction rates in thermodynamically non-ideal systems. Journal of Molecular Catalysis A, 2000, 163, 189-204.	4.8	103
105	Effects of Hydration and Dehydration on the Structure of Silica-Supported Vanadia Species. Langmuir, 2000, 16, 7162-7167.	1.6	101
106	Challenges and strategies in the encapsulation and stabilization of monodisperse Au clusters within zeolites. Journal of Catalysis, 2016, 339, 195-208.	3.1	100
107	Kinetics and Mechanism of Steady-State Catalytic NO Decomposition Reactions on Cuâ€"ZSM5. Journal of Catalysis, 2002, 209, 75-86.	3.1	99
108	Synthesis of higher alcohols on copper catalysts supported on alkali-promoted basic oxides. Applied Catalysis A: General, 1998, 169, 355-372.	2.2	98

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109	Alkali Effects on Molybdenum Oxide Catalysts for the Oxidative Dehydrogenation of Propane. Journal of Catalysis, 2000, 195, 244-252.	3.1	98
110	Structure and Properties of Cobalt-Exchanged H-ZSM5 Catalysts for Dehydrogenation and Dehydrocyclization of Alkanes. Journal of Physical Chemistry B, 2001, 105, 1176-1184.	1.2	98
111	Structural analysis of unpromoted Fe-based Fischerâ€“Tropsch catalysts using X-ray absorption spectroscopy. Applied Catalysis A: General, 2001, 219, 215-222.	2.2	96
112	Rate and Selectivity Enhancements Mediated by OH Radicals in the Oxidative Coupling of Methane Catalyzed by Mn/Na₂WO₄/SiO₂. Angewandte Chemie - International Edition, 2008, 47, 7689-7693.	7.2	96
113	Grafted Metallocalixarenes as Single-Site Surface Organometallic Catalysts. Journal of the American Chemical Society, 2004, 126, 16478-16486.	6.6	95
114	Oxidation of CO in H2â€“CO mixtures catalyzed by platinum: alkali effects on rates and selectivity. Journal of Catalysis, 2005, 233, 242-255.	3.1	95
115	Experimental and theoretical assessment of the mechanism and site requirements for ketonization of carboxylic acids on oxides. Journal of Catalysis, 2017, 345, 183-206.	3.1	95
116	Oxidative Dehydrogenation of Propane over V2O5/MoO3/Al2O3and V2O5/Cr2O3/Al2O3:Â Structural Characterization and Catalytic Function. Journal of Physical Chemistry B, 2005, 109, 8987-9000.	1.2	94
117	Elementary Steps, the Role of Chemisorbed Oxygen, and the Effects of Cluster Size in Catalytic CH₄â€“O₂ Reactions on Palladium. Journal of Physical Chemistry C, 2011, 115, 17845-17855.	1.5	93
118	Effective diffusivities in catalyst pellets: new model porous structures and transport simulation techniques. Journal of Catalysis, 1991, 129, 457-472.	3.1	92
119	Isotopic Studies of Methane Oxidation Pathways on PdO Catalysts. Journal of Catalysis, 1999, 188, 132-139.	3.1	92
120	Functional assessment of the strength of solid acid catalysts. Journal of Catalysis, 2009, 264, 54-66.	3.1	92
121	Design and optimization of catalysts and membrane reactors for the non-oxidative conversion of methane. Chemical Engineering Science, 2002, 57, 4595-4604.	1.9	88
122	Selective synthesis of ?-olefins on Fe-Zn Fischer-Tropsch catalysts. Topics in Catalysis, 1995, 2, 193-205.	1.3	87
123	Metal-Catalyzed Câ€“C Bond Cleavage in Alkanes: Effects of Methyl Substitution on Transition-State Structures and Stability. Journal of the American Chemical Society, 2014, 136, 9664-9676.	6.6	87
124	Isotopic and kinetic assessment of the mechanism of methane reforming and decomposition reactions on supported iridium catalysts. Physical Chemistry Chemical Physics, 2004, 6, 3754.	1.3	85
125	Kinetics and mechanism of cyclohexane oxidation on MnAPO-5 catalystsâ˜†. Journal of Catalysis, 2006, 239, 390-401.	3.1	85
126	Condensation and esterification reactions of alkanals, alkanones, and alkanols on TiO2: Elementary steps, site requirements, and synergistic effects of bifunctional strategies. Journal of Catalysis, 2016, 340, 302-320.	3.1	85

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127	Non-oxidative catalytic conversion of methane with continuous hydrogen removal. Studies in Surface Science and Catalysis, 1998, , 403-410.	1.5	84
128	Extent of Reduction of Vanadium Oxides during Catalytic Oxidation of Alkanes Measured by in-Situ UVâ^'Visible Spectroscopy. Journal of Physical Chemistry B, 2004, 108, 2345-2353.	1.2	84
129	Kinetic-transport models of bimodal reaction sequencesâ€"I. Homogeneous and heterogeneous pathways in oxidative coupling of methane. Chemical Engineering Science, 1993, 48, 2643-2661.	1.9	82
130	NO Oxidation Catalysis on Pt Clusters: Elementary Steps, Structural Requirements, and Synergistic Effects of NO₂Adsorption Sites. Journal of Physical Chemistry C, 2009, 113, 13331-13340.	1.5	82
131	Mechanistic details of acid-catalyzed reactions and their role in the selective synthesis of triptane and isobutane from dimethyl ether. Journal of Catalysis, 2011, 277, 173-195.	3.1	81
132	Selectivity of chemisorbed oxygen in Câ€"H bond activation and CO oxidation and kinetic consequences for CH4â€"O2 catalysis on Pt and Rh clusters. Journal of Catalysis, 2011, 283, 10-24.	3.1	81
133	Reaction and Deactivation Pathways in Xylene Isomerization on Zirconia Modified by Tungsten Oxide. Journal of Catalysis, 2000, 194, 175-187.	3.1	80
134	Catalysis on solid acids: Mechanism and catalyst descriptors in oligomerization reactions of light alkenes. Journal of Catalysis, 2016, 344, 553-569.	3.1	80
135	Isobutanol and Methanol Synthesis on Copper Catalysts Supported on Modified Magnesium Oxide. Journal of Catalysis, 1997, 171, 130-147.	3.1	79
136	Vanadyltert-Butoxy Orthosilicate, OV[OSi(OtBu)3]3:Â A Model for Isolated Vanadyl Sites on Silica and a Precursor to Vanadiaâ^'Silica Xerogelsâ€. Chemistry of Materials, 1999, 11, 2966-2973.	3.2	79
137	Isotopic Tracer Studies of Reaction Pathways for Propane Oxidative Dehydrogenation on Molybdenum Oxide Catalysts. Journal of Physical Chemistry B, 2001, 105, 646-653.	1.2	79
138	Hydrogen transfer and activation of propane and methane on ZSM5-based catalysts. Catalysis Letters, 1993, 21, 55-70.	1.4	75
139	Stability, structure, and oxidation state of Mo/H-ZSM-5 catalysts during reactions of CH4 and CH4â€"CO2 mixtures. Journal of Catalysis, 2005, 230, 173-185.	3.1	75
140	Reactivity and Selectivity Descriptors for the Activation of Câ€"H Bonds in Hydrocarbons and Oxygenates on Metal Oxides. Journal of Physical Chemistry C, 2016, 120, 16741-16760.	1.5	75
141	Mechanism and site requirements for NO oxidation on Pd catalysts. Journal of Catalysis, 2010, 272, 74-81.	3.1	74
142	Elementary steps in acetone condensation reactions catalyzed by aluminosilicates with diverse void structures. Journal of Catalysis, 2017, 346, 134-153.	3.1	73
143	Catalytic epoxidation of propene with H2Oâ€"O₂reactants on Au/TiO₂. Chemical Communications, 2009, , 352-354.	2.2	71
144	Selective Catalytic Oxidation of Organosulfur Compounds withtert-Butyl Hydroperoxide. Chemistry - A European Journal, 2006, 12, 1960-1967.	1.7	69

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145	Adsorption, Desorption, and Conversion of Thiophene on H-ZSM5. Langmuir, 2004, 20, 10982-10991.	1.6	68
146	Thiophene hydrodesulfurization catalysis on supported Ru clusters: Mechanism and site requirements for hydrogenation and desulfurization pathways. Journal of Catalysis, 2010, 273, 245-256.	3.1	68
147	Matrix method for correction of mass spectra in deuterium-exchange applications. Industrial & Engineering Chemistry Research, 1989, 28, 839-844.	1.8	67
148	Non-oxidative reactions of propane on Zn/Na-ZSM5. Physical Chemistry Chemical Physics, 1999, 1, 5753-5759.	1.3	67
149	The Effects of CO2, CO and H2 Co-Reactants on Methane Reactions Catalyzed by Mo/H-ZSM-5. Catalysis Letters, 2002, 81, 271-279.	1.4	67
150	Structural and Functional Characterization of Redox Mn and Co Sites in AlPO Materials and Their Role in Alkane Oxidation Catalysis. Journal of Physical Chemistry B, 2004, 108, 5552-5563.	1.2	67
151	RuO2 Clusters within LTA Zeolite Cages: Consequences of Encapsulation on Catalytic Reactivity and Selectivity. Angewandte Chemie - International Edition, 2007, 46, 3697-3700.	7.2	67
152	Selective Homologation Routes to 2,2,3â€Trimethylbutane on Solid Acids. Angewandte Chemie - International Edition, 2009, 48, 3814-3816.	7.2	67
153	Stabilization of active, selective, and regenerable Ni-based dimerization catalysts by condensation of ethene withinordered mesopores. Journal of Catalysis, 2017, 352, 505-514.	3.1	67
154	Carbonâ€"Carbon Bond Formation Pathways in CO Hydrogenation to Higher Alcohols. Journal of Catalysis, 1999, 188, 125-131.	3.1	66
155	Photoluminescence and Charge-Transfer Complexes of Calixarenes Grafted on TiO2 Nanoparticles. Chemistry of Materials, 2007, 19, 4998-5005.	3.2	65
156	Structural Assessment and Catalytic Consequences of the Oxygen Coordination Environment in Grafted Tiâˆ'Calixarenes. Journal of the American Chemical Society, 2007, 129, 1122-1131.	6.6	65
157	Catalytic reactions of dioxygen with ethane and methane on platinum clusters: Mechanistic connections, site requirements, and consequences of chemisorbed oxygen. Journal of Catalysis, 2012, 285, 260-272.	3.1	64
158	Mechanistic interpretation of the effects of acid strength on alkane isomerization turnover rates and selectivity. Journal of Catalysis, 2014, 319, 283-296.	3.1	64
159	Catalytic hydrogenation of alkenes on acidic zeolites: Mechanistic connections to monomolecular alkane dehydrogenation reactions. Journal of Catalysis, 2011, 277, 36-45.	3.1	63
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