Bruce C Gates

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/7311899/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	Life History of the Metal–Organic Framework UiO-66 Catalyzing Methanol Dehydration: Synthesis, Activation, Deactivation, and Demise. Chemistry of Materials, 2022, 34, 3395-3408.	3.2	11
2	lridium pair sites anchored to Zr6O8 nodes of the metal–organic framework UiO-66 catalyze ethylene hydrogenation. Journal of Catalysis, 2022, 411, 177-186.	3.1	3
3	Atomically Dispersed Platinum in Surface and Subsurface Sites on MgO Have Contrasting Catalytic Properties for CO Oxidation. Journal of Physical Chemistry Letters, 2022, 13, 3896-3903.	2.1	7
4	Transformation of reduced graphene aerogel-supported atomically dispersed iridium into stable clusters approximated as Ir6 during ethylene hydrogenation catalysis. Journal of Catalysis, 2022, 413, 603-613.	3.1	2
5	Prototype Atomically Dispersed Supported Metal Catalysts: Iridium and Platinum. Small, 2021, 17, e2004665.	5.2	27
6	Elucidating and Tuning Catalytic Sites on Zirconium- and Aluminum-Containing Nodes of Stable Metal–Organic Frameworks. Accounts of Chemical Research, 2021, 54, 1982-1991.	7.6	29
7	Pair Sites on Nodes of Metal–Organic Framework hcp UiO-66 Catalyze <i>tert</i> -Butyl Alcohol Dehydration. Journal of Physical Chemistry Letters, 2021, 12, 6085-6089.	2.1	8
8	Beyond Radical Rebound: Methane Oxidation to Methanol Catalyzed by Iron Species in Metal–Organic Framework Nodes. Journal of the American Chemical Society, 2021, 143, 12165-12174.	6.6	51
9	Characterization of a Metal–Organic Framework Zr ₆ O ₈ Node-Supported Atomically Dispersed Iridium Catalyst for Ethylene Hydrogenation by X-ray Absorption Near-Edge Structure and Infrared Spectroscopies. Journal of Physical Chemistry C, 2021, 125, 16995-17007.	1.5	5
10	Pair sites on Al3O nodes of the metal-organic framework MIL-100: Cooperative roles of defect and structural vacancy sites in methanol dehydration catalysis. Journal of Catalysis, 2021, 404, 128-138.	3.1	16
11	A Theory-Guided X-ray Absorption Spectroscopy Approach for Identifying Active Sites in Atomically Dispersed Transition-Metal Catalysts. Journal of the American Chemical Society, 2021, 143, 20144-20156.	6.6	28
12	Propane Dehydrogenation Catalyzed by Isolated Pt Atoms in ≡SiOZn–OH Nests in Dealuminated Zeolite Beta. Journal of the American Chemical Society, 2021, 143, 21364-21378.	6.6	92
13	Synthesis of Rh ₆ (CO) ₁₆ in Supercages of Zeolite HY:†Reaction Network and Kinetics of Formation from†Mononuclear Rhodium Precursors via Rh ₄ (CO) ₁₂ †Facilitated by the Water Gas Shift Half-Reaction. Journal of Physical Chemistry C. 2020. 124. 2513-2520.	1.5	11
14	Synthesis and characterization of tetrairidium clusters in the metal organic framework UiO-67: Catalyst for ethylene hydrogenation. Journal of Catalysis, 2020, 382, 165-172.	3.1	23
15	Iridium Atoms Bonded to Crystalline Powder MgO: Characterization by Imaging and Spectroscopy. Journal of Physical Chemistry C, 2020, 124, 459-468.	1.5	10
16	Electronic Structure of Atomically Dispersed Supported Iridium Catalyst Controls Iridium Aggregation. ACS Catalysis, 2020, 10, 12354-12358.	5.5	17
17	Supported Metal Pair-Site Catalysts. ACS Catalysis, 2020, 10, 9065-9085.	5.5	67
18	Dialing in Catalytic Sites on Metal Organic Framework Nodes: MIL-53(Al) and MIL-68(Al) Probed with Methanol Dehydration Catalysis. ACS Applied Materials & Interfaces, 2020, 12, 53537-53546.	4.0	34

#	Article	IF	CITATIONS
19	The Surface Chemistry of Metal Oxide Clusters: From Metal–Organic Frameworks to Minerals. ACS Central Science, 2020, 6, 1523-1533.	5.3	46
20	Dispersed Nickel Boosts Catalysis by Copper in CO ₂ Hydrogenation. ACS Catalysis, 2020, 10, 9261-9270.	5.5	52
21	Atomically Dispersed Metals on Well-Defined Supports including Zeolites and Metal–Organic Frameworks: Structure, Bonding, Reactivity, and Catalysis. Chemical Reviews, 2020, 120, 11956-11985.	23.0	137
22	Atomically Dispersed Ru on Manganese Oxide Catalyst Boosts Oxidative Cyanation. ACS Catalysis, 2020, 10, 6299-6308.	5.5	51
23	Core–shell structured catalysts for thermocatalytic, photocatalytic, and electrocatalytic conversion of CO ₂ . Chemical Society Reviews, 2020, 49, 2937-3004.	18.7	479
24	Isostructural Atomically Dispersed Rhodium Catalysts Supported on SAPO-37 and on HY Zeolite. Journal of the American Chemical Society, 2020, 142, 11474-11485.	6.6	22
25	Multimodal Synchrotron Approach: Research Needs and Scientific Vision. Synchrotron Radiation News, 2020, 33, 44-47.	0.2	3
26	Tuning Catalytic Sites on Zr ₆ O ₈ Metal–Organic Framework Nodes via Ligand and Defect Chemistry Probed with <i>tert</i> Butyl Alcohol Dehydration to Isobutylene. Journal of the American Chemical Society, 2020, 142, 8044-8056.	6.6	83
27	Silica accelerates the selective hydrogenation of CO2 to methanol on cobalt catalysts. Nature Communications, 2020, 11, 1033.	5.8	124
28	Docking of tetra-methyl zirconium to the surface of silica: a well-defined pre-catalyst for conversion of CO ₂ to cyclic carbonates. Chemical Communications, 2020, 56, 3528-3531.	2.2	16
29	Tuning Zr ₁₂ O ₂₂ Node Defects as Catalytic Sites in the Metal–Organic Framework hcp UiO-66. ACS Catalysis, 2020, 10, 2906-2914.	5.5	90
30	Unraveling the individual influences of supports and ionic liquid coatings on the catalytic properties of supported iridium complexes and iridium clusters. Journal of Catalysis, 2020, 387, 186-195.	3.1	18
31	Mechanistic Study of Hydroamination of Alkyne through Tantalum-Based Silica-Supported Surface Species. ACS Catalysis, 2019, 9, 8719-8725.	5.5	15
32	Atomically Dispersed Reduced Graphene Aerogel-Supported Iridium Catalyst with an Iridium Loading of 14.8 wt %. ACS Catalysis, 2019, 9, 9905-9913.	5.5	55
33	Spectroscopic Characterization of μ-Î- ¹ 11-Peroxo Ligands Formed by Reaction of Dioxygen with Electron-Rich Iridium Clusters. Inorganic Chemistry, 2019, 58, 14338-14348.	1.9	4
34	Structure, Dynamics, and Reactivity for Light Alkane Oxidation of Fe(II) Sites Situated in the Nodes of a Metal–Organic Framework. Journal of the American Chemical Society, 2019, 141, 18142-18151.	6.6	80
35	MgO-Supported Iridium Metal Pair-Site Catalysts Are More Active and Resistant to CO Poisoning than Analogous Single-Site Catalysts for Ethylene Hydrogenation and Hydrogen–Deuterium Exchange. ACS Catalysis, 2019, 9, 9545-9553.	5.5	25
36	Controlling catalytic activity and selectivity for partial hydrogenation by tuning the environment around active sites in iridium complexes bonded to supports. Chemical Science, 2019, 10, 2623-2632.	3.7	40

#	Article	IF	CITATIONS
37	Product Selectivity Controlled by Nanoporous Environments in Zeolite Crystals Enveloping Rhodium Nanoparticle Catalysts for CO ₂ Hydrogenation. Journal of the American Chemical Society, 2019, 141, 8482-8488.	6.6	242
38	Atomically Dispersed Supported Metal Catalysts: Seeing Is Believing. Trends in Chemistry, 2019, 1, 99-110.	4.4	55
39	Tuning the Properties of Zr ₆ O ₈ Nodes in the Metal Organic Framework UiO-66 by Selection of Node-Bound Ligands and Linkers. Chemistry of Materials, 2019, 31, 1655-1663.	3.2	97
40	Bulky Calixarene Ligands Stabilize Supported Iridium Pair-Site Catalysts. Journal of the American Chemical Society, 2019, 141, 4010-4015.	6.6	34
41	Reversible Metal Aggregation and Redispersion Driven by the Catalytic Water Gas Shift Half-Reactions: Interconversion of Single-Site Rhodium Complexes and Tetrarhodium Clusters in Zeolite HY. ACS Catalysis, 2019, 9, 3311-3321.	5.5	31
42	Tungsten Catalyst Incorporating a Wellâ€Defined Tetracoordinated Aluminum Surface Ligand for Selective Metathesis of Propane, [(≡Siâ^'Oâ^'Si≡)(≡Siâ^'Oâ^') ₂ Alâ^'Oâ^'W(≡C <i>t</i> Bu (H) ₂]. ChemCatChem, 2019, 11, 614-620.) 1.8	2
43	Catalysis by Metal Organic Frameworks: Perspective and Suggestions for Future Research. ACS Catalysis, 2019, 9, 1779-1798.	5.5	622
44	Structure and Dynamics of Zr ₆ O ₈ Metal–Organic Framework Node Surfaces Probed with Ethanol Dehydration as a Catalytic Test Reaction. Journal of the American Chemical Society, 2018, 140, 3751-3759.	6.6	150
45	Single-site catalyst promoters accelerate metal-catalyzed nitroarene hydrogenation. Nature Communications, 2018, 9, 1362.	5.8	161
46	Correction to "Tuning Zr ₆ Metal-Organic Framework (MOF) Nodes as Catalyst Supports: Site Densities and Electron-Donor Properties Influence Molecular Iridium Complexes as Ethylene Conversion Catalysts― ACS Catalysis, 2018, 8, 2364-2364.	5.5	3
47	A Silica-Supported Monoalkylated Tungsten Dioxo Complex Catalyst for Olefin Metathesis. ACS Catalysis, 2018, 8, 2715-2729.	5.5	38
48	Beating Heterogeneity of Single-Site Catalysts: MgO-Supported Iridium Complexes. ACS Catalysis, 2018, 8, 3489-3498.	5.5	64
49	Stable Rhodium Pair Sites on MgO: Influence of Ligands and Rhodium Nuclearity on Catalysis of Ethylene Hydrogenation and H–D Exchange in the Reaction of H ₂ with D ₂ . ACS Catalysis, 2018, 8, 482-487.	5.5	35
50	Imine Metathesis Catalyzed by a Silica-Supported Hafnium Imido Complex. ACS Catalysis, 2018, 8, 9440-9446.	5.5	20
51	Sinter-resistant metal nanoparticle catalysts achieved by immobilization within zeolite crystals via seed-directed growth. Nature Catalysis, 2018, 1, 540-546.	16.1	297
52	Supported cluster catalysts synthesized to be small, simple, selective, and stable. Faraday Discussions, 2018, 208, 9-33.	1.6	8
53	Weakly interacting solvation spheres surrounding a calixarene-protected tetrairidium carbonyl cluster: contrasting effects on reactivity of alkane solvent and silica support. Dalton Transactions, 2018, 47, 13550-13558.	1.6	8
54	The challenges of characterising nanoparticulate catalysts: general discussion. Faraday Discussions, 2018, 208, 339-394.	1.6	5

#	Article	IF	CITATIONS
55	Tuning the properties of metal–organic framework nodes as supports of single-site iridium catalysts: node modification by atomic layer deposition of aluminium. Faraday Discussions, 2017, 201, 195-206.	1.6	30
56	Experimental investigation of upgrading of lignin-derived bio-oil component anisole catalyzed by carbon nanotube-supported molybdenum. RSC Advances, 2017, 7, 10545-10556.	1.7	38
57	A Pd@Zeolite Catalyst for Nitroarene Hydrogenation with High Product Selectivity by Sterically Controlled Adsorption in the Zeolite Micropores. Angewandte Chemie - International Edition, 2017, 56, 9747-9751.	7.2	248
58	A Pd@Zeolite Catalyst for Nitroarene Hydrogenation with High Product Selectivity by Sterically Controlled Adsorption in the Zeolite Micropores. Angewandte Chemie, 2017, 129, 9879-9883.	1.6	81
59	Dialing in single-site reactivity of a supported calixarene-protected tetrairidium cluster catalyst. Chemical Science, 2017, 8, 4951-4960.	3.7	18
60	Role of N-Heterocyclic Carbenes as Ligands in Iridium Carbonyl Clusters. Journal of Physical Chemistry A, 2017, 121, 5029-5044.	1.1	7
61	Highâ€Energyâ€Resolution Xâ€ray Absorption Spectroscopy for Identification of Reactive Surface Species on Supported Singleâ€Site Iridium Catalysts. Chemistry - A European Journal, 2017, 23, 14760-14768.	1.7	35
62	From single-site tantalum complexes to nanoparticles of Ta _x N _y and TaO _x N _y supported on silica: elucidation of synthesis chemistry by dynamic nuclear polarization surface enhanced NMR spectroscopy and X-ray absorption spectroscopy. Chemical Science, 2017, 8, 5650-5661.	3.7	14
63	Molecular Rhodium Complexes Supported on the Metal-Oxide-Like Nodes of Metal Organic Frameworks and on Zeolite HY: Catalysts for Ethylene Hydrogenation and Dimerization. ACS Applied Materials & Interfaces, 2017, 9, 33511-33520.	4.0	69
64	Innentitelbild: A Pd@Zeolite Catalyst for Nitroarene Hydrogenation with High Product Selectivity by Sterically Controlled Adsorption in the Zeolite Micropores (Angew. Chem. 33/2017). Angewandte Chemie, 2017, 129, 9756-9756.	1.6	3
65	Uniformity begets selectivity. Nature Materials, 2017, 16, 703-704.	13.3	10
66	Single‣ite Osmium Catalysts on MgO: Reactivity and Catalysis of CO Oxidation. Chemistry - A European Journal, 2017, 23, 2532-2536.	1.7	18
67	Atomically dispersed supported metal catalysts: perspectives and suggestions for future research. Catalysis Science and Technology, 2017, 7, 4259-4275.	2.1	221
68	Tuning the Selectivity of Single-Site Supported Metal Catalysts with Ionic Liquids. ACS Catalysis, 2017, 7, 6969-6972.	5.5	51
69	Beyond Ordered Materials: Understanding Catalytic Sites on Amorphous Solids. ACS Catalysis, 2017, 7, 7543-7557.	5.5	134
70	High-Energy-Resolution X-ray Absorption Spectroscopy for Identification of Reactive Surface Species on Supported Single-Site Iridium Catalysts. Chemistry - A European Journal, 2017, 23, 14669-14669.	1.7	0
71	Concluding remarks: progress toward the design of solid catalysts. Faraday Discussions, 2016, 188, 591-602.	1.6	6
72	Experimental Investigation on Upgrading of Ligninâ€Derived Bioâ€Oils: Kinetic Analysis of Anisole Conversion on Sulfided CoMo/Al ₂ O ₃ Catalyst. International Journal of Chemical Kinetics, 2016, 48, 702-713.	1.0	35

#	Article	IF	CITATIONS
73	Homogeneity of Surface Sites in Supported Single-Site Metal Catalysts: Assessment with Band Widths of Metal Carbonyl Infrared Spectra. Journal of Physical Chemistry Letters, 2016, 7, 3854-3860.	2.1	100
74	Tuning the Surface Chemistry of Metal Organic Framework Nodes: Proton Topology of the Metal-Oxide-Like Zr ₆ Nodes of UiO-66 and NU-1000. Journal of the American Chemical Society, 2016, 138, 15189-15196.	6.6	155
75	Hydroprocessing of 4â€methylanisole as a representative of ligninâ€derived bioâ€oils catalyzed by sulphided CoMo/γâ€Al ₂ O ₃ : A semiâ€quantitative reaction network. Canadian Journal of Chemical Engineering, 2016, 94, 1524-1532.	0.9	37
76	Tracking Rh Atoms in Zeolite HY: First Steps of Metal Cluster Formation and Influence of Metal Nuclearity on Catalysis of Ethylene Hydrogenation and Ethylene Dimerization. Journal of Physical Chemistry Letters, 2016, 7, 2537-2543.	2.1	44
77	Controlling the hydrogenolysis of silica-supported tungsten pentamethyl leads to a class of highly electron deficient partially alkylated metal hydrides. Chemical Science, 2016, 7, 1558-1568.	3.7	53
78	Rhodium pair-sites on magnesium oxide: Synthesis, characterization, and catalysis of ethylene hydrogenation. Journal of Catalysis, 2016, 338, 12-20.	3.1	24
79	Toward Benchmarking in Catalysis Science: Best Practices, Challenges, and Opportunities. ACS Catalysis, 2016, 6, 2590-2602.	5.5	190
80	Tuning Zr ₆ Metal–Organic Framework (MOF) Nodes as Catalyst Supports: Site Densities and Electron-Donor Properties Influence Molecular Iridium Complexes as Ethylene Conversion Catalysts. ACS Catalysis, 2016, 6, 235-247.	5.5	150
81	Singleâ€Site Zeoliteâ€Anchored Organoiridium Carbonyl Complexes: Characterization of Structure and Reactivity by Spectroscopy and Computational Chemistry. Chemistry - A European Journal, 2015, 21, 11825-11835.	1.7	25
82	Mononuclear Iridium Dinitrogen Complexes Bonded to Zeolite HY. Chemistry - A European Journal, 2015, 21, 631-640.	1.7	10
83	Metal–Organic Framework Nodes as Nearly Ideal Supports for Molecular Catalysts: NU-1000- and UiO-66-Supported Iridium Complexes. Journal of the American Chemical Society, 2015, 137, 7391-7396.	6.6	228
84	Migration of Single Iridium Atoms and Tri-iridium Clusters on MgO Surfaces: Aberration-Corrected STEM Imaging and Ab Initio Calculations. Journal of Physical Chemistry Letters, 2015, 6, 4675-4679.	2.1	12
85	Upgrading of Lignin-Derived Bio-oil Components Catalyzed by Pt/γ-Al ₂ O ₃ : Kinetics and Reaction Pathways Characterizing Conversion of Cyclohexanone with H ₂ . Energy & Fuels, 2015, 29, 191-199.	2.5	41
86	Genesis of Delaminated-Zeolite Morphology: 3-D Characterization of Changes by STEM Tomography. Journal of Physical Chemistry Letters, 2015, 6, 2598-2602.	2.1	5
87	Imaging individual lanthanum atoms in zeolite Y by scanning transmission electron microscopy: Evidence of lanthanum pair sites. Microporous and Mesoporous Materials, 2015, 213, 95-99.	2.2	9
88	Agglomerative Sintering of an Atomically Dispersed Ir ₁ /Zeolite Y Catalyst: Compelling Evidence Against Ostwald Ripening but for Bimolecular and Autocatalytic Agglomeration Catalyst Sintering Steps. ACS Catalysis, 2015, 5, 3514-3527.	5.5	66
89	Molecular models of site-isolated cobalt, rhodium, and iridium catalysts supported on zeolites: Ligand bond dissociation energies. Computational and Theoretical Chemistry, 2015, 1074, 58-72.	1.1	14
90	Isostructural Zeolite-Supported Rhodium and Iridium Complexes: Tuning Catalytic Activity and Selectivity by Ligand Modification. ACS Catalysis, 2015, 5, 5647-5656.	5.5	58

#	Article	IF	CITATIONS
91	Selective molecular recognition by nanoscale environments in a supported iridium cluster catalyst. Nature Nanotechnology, 2014, 9, 459-465.	15.6	53
92	Formation of supported rhodium clusters from mononuclear rhodium complexes controlled by the support and ligands on rhodium. Physical Chemistry Chemical Physics, 2014, 16, 1262-1270.	1.3	24
93	Beyond Relationships Between Homogeneous and Heterogeneous Catalysis. Catalysis Letters, 2014, 144, 1785-1789.	1.4	4
94	Molecular Metal Catalysts on Supports: Organometallic Chemistry Meets Surface Science. Accounts of Chemical Research, 2014, 47, 2612-2620.	7.6	187
95	Iridium Complexes and Clusters in Dealuminated Zeolite HY: Distribution between Crystalline and Impurity Amorphous Regions. ACS Catalysis, 2014, 4, 2662-2666.	5.5	12
96	A Single‣ite Platinum CO Oxidation Catalyst in Zeolite KLTL: Microscopic and Spectroscopic Determination of the Locations of the Platinum Atoms. Angewandte Chemie - International Edition, 2014, 53, 8904-8907.	7.2	263
97	Upgrading of Anisole in a Dielectric Barrier Discharge Plasma Reactor. Energy & Fuels, 2014, 28, 4545-4553.	2.5	36
98	Upgrading of lignin-derived bio-oils by catalytic hydrodeoxygenation. Energy and Environmental Science, 2014, 7, 103-129.	15.6	764
99	Quantitative Z-contrast Imaging in Scanning Transmission Electron Microscopy of Zeolite-supported Metal Clusters and Single-metal-atom Complexes With Single-Atom Sensitivity. Microscopy and Microanalysis, 2014, 20, 148-149.	0.2	1
100	Quantitative <i>Z</i> ontrast Imaging of Supported Metal Complexes and Clusters—A Gateway to Understanding Catalysis on the Atomic Scale. ChemCatChem, 2013, 5, 2673-2683.	1.8	14
101	Supported gold catalysts: new properties offered by nanometer and sub-nanometer structures. Chemical Communications, 2013, 49, 7876.	2.2	35
102	Surfaceâ€Mediated Synthesis of Dimeric Rhodium Catalysts on MgO: Tracking Changes in the Nuclearity and Ligand Environment of the Catalytically Active Sites by Xâ€ray Absorption and Infrared Spectroscopies. Chemistry - A European Journal, 2013, 19, 1235-1245.	1.7	38
103	Zeolite- and MgO-supported rhodium complexes and rhodium clusters: Tuning catalytic properties to control carbon–carbon vs. carbon–hydrogen bond formation reactions of ethene in the presence of H2. Journal of Catalysis, 2013, 308, 201-212.	3.1	32
104	Zeolite-supported bimetallic catalyst: controlling selectivity of rhodium complexes by nearby iridium complexes. Catalysis Science and Technology, 2013, 3, 2199.	2.1	11
105	Threeâ€Dimensional Structural Analysis of MgO‣upported Osmium Clusters by Electron Microscopy with Singleâ€Atom Sensitivity. Angewandte Chemie - International Edition, 2013, 52, 5262-5265.	7.2	17
106	Structures and Stability of Irn(CO)m. Molecular Physics, 2012, 110, 1977-1992.	0.8	9
107	Katalyseforscher, vereinigt Euch!. Angewandte Chemie, 2012, 124, 11812-11813.	1.6	4
108	Selective Hydrodeoxygenation of Guaiacol Catalyzed by Platinum Supported on Magnesium Oxide. Catalysis Letters, 2012, 142, 1190-1196.	1.4	108

#	Article	IF	CITATIONS
109	Sinter-Resistant Catalysts: Supported Iridium Nanoclusters with Intrinsically Limited Sizes. Catalysis Letters, 2012, 142, 1445-1451.	1.4	22
110	Atomically Resolved Site-Isolated Catalyst on MgO: Mononuclear Osmium Dicarbonyls formed from Os ₃ (CO) ₁₂ . Journal of Physical Chemistry Letters, 2012, 3, 1865-1871.	2.1	21
111	Catalytic conversion of compounds representative of lignin-derived bio-oils: a reaction network for guaiacol, anisole, 4-methylanisole, and cyclohexanone conversion catalysed by Pt/γ-Al ₂ O ₃ . Catalysis Science and Technology, 2012, 2, 113-118.	2.1	158
112	Tuning Catalytic Selectivity: Zeolite- and Magnesium Oxide-Supported Molecular Rhodium Catalysts for Hydrogenation of 1,3-Butadiene. ACS Catalysis, 2012, 2, 2100-2113.	5.5	69
113	Mononuclear Zeolite-Supported Iridium: Kinetic, Spectroscopic, Electron Microscopic, and Size-Selective Poisoning Evidence for an Atomically Dispersed True Catalyst at 22 ŰC. ACS Catalysis, 2012, 2, 1947-1957.	5.5	47
114	Site-Isolated Molecular Iridium Complex Catalyst Supported in the 1-Dimensional Channels of Zeolite HSSZ-53: Characterization by Spectroscopy and Aberration-Corrected Scanning Transmission Electron Microscopy. ACS Catalysis, 2012, 2, 1002-1012.	5.5	21
115	Hydrogen Activation and Metal Hydride Formation Trigger Cluster Formation from Supported Iridium Complexes. Journal of the American Chemical Society, 2012, 134, 5022-5025.	6.6	52
116	Oxide- and Zeolite-Supported Isostructural Ir(C ₂ H ₄) ₂ Complexes: Molecular-Level Observations of Electronic Effects of Supports as Ligands. Langmuir, 2012, 28, 12806-12815.	1.6	42
117	Rücktitelbild: Imaging Isolated Gold Atom Catalytic Sites in Zeolite NaY (Angew. Chem. 24/2012). Angewandte Chemie, 2012, 124, 6120-6120.	1.6	0
118	Imaging Isolated Gold Atom Catalytic Sites in Zeolite NaY. Angewandte Chemie - International Edition, 2012, 51, 5842-5846.	7.2	163
119	A "Smart―Catalyst: Sinterâ€Resistant Supported Iridium Clusters Visualized with Electron Microscopy. Angewandte Chemie - International Edition, 2012, 51, 5929-5934.	7.2	97
120	Back Cover: Imaging Isolated Gold Atom Catalytic Sites in Zeolite NaY (Angew. Chem. Int. Ed. 24/2012). Angewandte Chemie - International Edition, 2012, 51, 6016-6016.	7.2	0
121	Atomically Dispersed Supported Metal Catalysts. Annual Review of Chemical and Biomolecular Engineering, 2012, 3, 545-574.	3.3	486
122	Catalytic Conversion of Furan to Gasoline-Range Aliphatic Hydrocarbons via Ring Opening and Decarbonylation Reactions Catalyzed by Pt/γ-Al2O3. Catalysis Letters, 2012, 142, 664-666.	1.4	15
123	Conversion of 4-Methylanisole Catalyzed by Pt/γ-Al2O3 and by Pt/SiO2-Al2O3: Reaction Networks and Evidence of Oxygen Removal. Catalysis Letters, 2012, 142, 7-15.	1.4	40
124	Upgrading of Lignin-Derived Compounds: Reactions of Eugenol Catalyzed by HY Zeolite and by Pt/l³-Al2O3. Catalysis Letters, 2012, 142, 151-160.	1.4	62
125	Zeolite- and MgO-Supported Molecular Iridium Complexes: Support and Ligand Effects in Catalysis of Ethene Hydrogenation and H–D Exchange in the Conversion of H ₂ + D ₂ . ACS Catalysis, 2011, 1, 1549-1561.	5.5	69
126	Supported Molecular Iridium Catalysts: Resolving Effects of Metal Nuclearity and Supports as Ligands. Journal of the American Chemical Society, 2011, 133, 16186-16195.	6.6	132

#	Article	IF	CITATIONS
127	Catalytic Conversion of Guaiacol Catalyzed by Platinum Supported on Alumina: Reaction Network Including Hydrodeoxygenation Reactions. Energy & Fuels, 2011, 25, 3417-3427.	2.5	222
128	Conversion of Anisole Catalyzed by Platinum Supported on Alumina: The Reaction Network. Energy & Fuels, 2011, 25, 4776-4785.	2.5	68
129	Ir ₆ Clusters Compartmentalized in the Supercages of Zeolite NaY: Direct Imaging of a Catalyst with Aberration-Corrected Scanning Transmission Electron Microscopy. ACS Catalysis, 2011, 1, 1613-1620.	5.5	27
130	Tracking Iridium Atoms with Electron Microscopy: First Steps of Metal Nanocluster Formation in One-Dimensional Zeolite Channels. Nano Letters, 2011, 11, 5537-5541.	4.5	49
131	Prototype Supported Metal Cluster Catalysts: Ir ₄ and Ir ₆ . ChemCatChem, 2011, 3, 95-107.	1.8	53
132	Catalytic Conversion of Anisole: Evidence of Oxygen Removal in Reactions with Hydrogen. Catalysis Letters, 2011, 141, 817-820.	1.4	62
133	Catalytic Reactions of Guaiacol: Reaction Network and Evidence of Oxygen Removal in Reactions with Hydrogen. Catalysis Letters, 2011, 141, 779-783.	1.4	122
134	Cyclohexanone Conversion Catalyzed by Pt/γ-Al2O3: Evidence of Oxygen Removal and Coupling Reactions. Catalysis Letters, 2011, 141, 1072-1078.	1.4	46
135	Triosmium Clusters on a Support: Determination of Structure by Xâ€ray Absorption Spectroscopy and Highâ€Resolution Microscopy. Chemistry - A European Journal, 2011, 17, 1000-1008.	1.7	11
136	A site-isolated mononuclear iridium complex catalyst supported on MgO: Characterization by spectroscopy and aberration-corrected scanning transmission electron microscopy. Journal of Catalysis, 2010, 269, 318-328.	3.1	108
137	A Zeoliteâ€Supported Molecular Ruthenium Complex with η ⁶ â€C ₆ H ₆ Ligands: Chemistry Elucidated by Using Spectroscopy and Density Functional Theory. Chemistry - A European Journal, 2010, 16, 7427-7436.	1.7	7
138	Atomic Resolution of the Structure of a Metal–Support Interface: Triosmium Clusters on MgO(110). Angewandte Chemie - International Edition, 2010, 49, 10089-10092.	7.2	30
139	Direct imaging of single metal atoms and clusters in the pores of dealuminated HY zeolite. Nature Nanotechnology, 2010, 5, 506-510.	15.6	172
140	Essentially Molecular Metal Complexes Anchored to Zeolite Î ² : Synthesis and Characterization of Rhodium Complexes and Ruthenium Complexes Prepared from Rh(acac)(η ² -C ₂ H ₄) ₂ and <i>cis</i> -Ru(acac) ₂ (η Journal of Physical Chemistry C, 2010, 114, 2685-2693.	^{2<!--</td--><td>sup>-C</td>}	sup>-C
141	Metal clusters on supports: synthesis, structure, reactivity, and catalytic properties. Chemical Communications, 2010, 46, 5997.	2.2	127
142	Formation of a Manganese Tricarbonyl on the MgO Surface from Mn ₂ (CO) ₁₀ : Characterization by Infrared, Electron Paramagnetic Resonance, and X-ray Absorption Spectroscopies. Journal of Physical Chemistry C, 2010, 114, 17212-17221.	1.5	5
143	Reactions of Highly Uniform Zeolite H-Î ² -Supported Rhodium Complexes: Transient Characterization by Infrared and X-ray Absorption Spectroscopies. Journal of Physical Chemistry C, 2010, 114, 8405-8413.	1.5	12
144	Dynamic Structural Changes in a Molecular Zeolite-Supported Iridium Catalyst for Ethene Hydrogenation. Journal of the American Chemical Society, 2009, 131, 15887-15894.	6.6	73

#	Article	IF	CITATIONS
145	Rhenium complexes and clusters supported on γ-Al2O3: Effects of rhenium oxidation state and rhenium cluster size on catalytic activity for n-butane hydrogenolysis. Journal of Catalysis, 2009, 268, 89-99.	3.1	19
146	Spectroscopic Elucidation of First Steps of Supported Bimetallic Cluster Formation. Angewandte Chemie - International Edition, 2009, 48, 9697-9700.	7.2	17
147	Kinetics of CO Oxidation Catalyzed by Supported Gold: A Tabular Summary of the Literature. Catalysis Letters, 2009, 130, 108-120.	1.4	47
148	Imaging Gold Atoms in Site-Isolated MgO-Supported Mononuclear Gold Complexes. Journal of Physical Chemistry C, 2009, 113, 16847-16849.	1.5	26
149	Nearly Uniform Decaosmium Clusters Supported on MgO: Characterization by X-ray Absorption Spectroscopy and Scanning Transmission Electron Microscopy. Journal of Physical Chemistry C, 2009, 113, 13377-13385.	1.5	8
150	Genesis of a Cerium Oxide Supported Gold Catalyst for CO Oxidation: Transformation of Mononuclear Gold Complexes into Clusters as Characterized by X-Ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2009, 113, 3259-3269.	1.5	32
151	Site-isolated iridium complexes on MgO powder: individual Ir atoms imaged by scanning transmission electron microscopy. Chemical Communications, 2009, , 4657.	2.2	40
152	Zeolite-Supported Organorhodium Fragments: Essentially Molecular Surface Chemistry Elucidated with Spectroscopy and Theory. Journal of the American Chemical Society, 2009, 131, 8460-8473.	6.6	56
153	Realâ€Time Characterization of Formation and Breakup of Iridium Clusters in Highly Dealuminated Zeoliteâ€Y. Angewandte Chemie - International Edition, 2008, 47, 9245-9248.	7.2	94
154	Alumina-Supported Trirhenium Clusters:  Stable High-Temperature Catalysts for Methylcyclohexane Conversion. Journal of Physical Chemistry C, 2008, 112, 3383-3391.	1.5	14
155	Determination of Nanocluster Sizes from Dark-Field Scanning Transmission Electron Microscopy Images. Journal of Physical Chemistry C, 2008, 112, 1759-1763.	1.5	21
156	Time-Resolved Structural Characterization of Formation and Break-up of Rhodium Clusters Supported in Highly Dealuminated Y Zeolite. Journal of Physical Chemistry C, 2008, 112, 18039-18049.	1.5	42
157	Molecular Chemistry in a Zeolite: Genesis of a Zeolite Y-Supported Ruthenium Complex Catalyst. Journal of the American Chemical Society, 2008, 130, 13338-13346.	6.6	37
158	Reactivity of Binuclear Tantalum Clusters on Silica:  Characterization by Transient Time-Resolved Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 7477-7485.	1.5	9
159	A Site-Isolated Iridium Diethylene Complex Supported on Highly Dealuminated Y Zeolite:  Synthesis and Characterization. Journal of Physical Chemistry C, 2007, 111, 15064-15073.	1.5	66
160	Gold Nanoclusters Entrapped in the α-Cages of Y Zeolites:  Structural Characterization by X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2007, 111, 6645-6651.	1.5	35
161	Molecular Heterogeneous Catalysis: A Single‣ite Zeolite‣upported Rhodium Complex for Acetylene Cyclotrimerization. Chemistry - A European Journal, 2007, 13, 7294-7304.	1.7	62
162	Role of cationic gold in supported CO oxidation catalysts. Topics in Catalysis, 2007, 44, 103-114.	1.3	76

#	Article	IF	CITATIONS
163	Silica-supported tantalum clusters: catalysts for conversion of methane with n-butane to give ethane, propane, and pentanes. Catalysis Letters, 2007, 113, 73-81.	1.4	8
164	MgO-supported cluster catalysts with Pt–Ru interactions prepared from Pt3Ru6(CO)21(μ3-H)(μ-H)3. Catalysis Letters, 2007, 115, 99-107.	1.4	11
165	Oxide- and Zeolite-Supported Molecular Metal Complexes and Clusters:  Physical Characterization and Determination of Structure, Bonding, and Metal Oxidation State. Journal of Physical Chemistry B, 2006, 110, 13326-13351.	1.2	120
166	Rhodium Complex with Ethylene Ligands Supported on Highly Dehydroxylated MgO:Â Synthesis, Characterization, and Reactivity. Langmuir, 2006, 22, 490-496.	1.6	32
167	Evidence from NMR and EXAFS Studies of a Dynamically Uniform Mononuclear Single-Site Zeolite-Supported Rhodium Catalyst. Angewandte Chemie - International Edition, 2006, 45, 574-576.	7.2	59
168	Zeolite NaY-supported gold complexes prepared from Au(CH3)2(C5H7O2): reactivity with carbon monoxide. Catalysis Letters, 2005, 101, 265-274.	1.4	33
169	A Site-Isolated Rhodiumâ^'Diethylene Complex Supported on Highly Dealuminated Y Zeolite:Â Synthesis and Characterization. Journal of Physical Chemistry B, 2005, 109, 24236-24243.	1.2	56
170	Structural Changes of the Goldâ ``Support Interface during CO Oxidation Catalyzed by Mononuclear Gold Complexes Bonded to Zeolite NaY:Â Evidence from Time-Resolved X-ray Absorption Spectroscopy. Langmuir, 2005, 21, 5693-5695.	1.6	34
171	Effects of Adsorbates on Supported Platinum and Iridium Clusters:Â Characterization in Reactive Atmospheres and during Alkene Hydrogenation Catalysis by X-ray Absorption Spectroscopyâ€. Journal of Physical Chemistry B, 2005, 109, 2338-2349.	1.2	54
172	Intact and Fragmented Triosmium Clusters on MgO:  Characterization by X-ray Absorption Spectroscopy and High-Resolution Transmission Electron Microscopy. Journal of Physical Chemistry B, 2005, 109, 12738-12741.	1.2	27
173	Formation of Gold Clusters on TiO2from Adsorbed Au(CH3)2(C5H7O2): Characterization by X-ray Absorption Spectroscopy. Catalysis Letters, 2004, 95, 77-86.	1.4	42
174	A rhenium carbonyl bonded to highly dealuminated zeolite Y: structure determination by infrared and X-ray absorption spectroscopies. Physical Chemistry Chemical Physics, 2004, 6, 2484.	1.3	7
175	Mononuclear Aulliand AulComplexes Bonded to Zeolite NaY:Â Catalysts for CO Oxidation at 298 K. Journal of Physical Chemistry B, 2004, 108, 16999-17002.	1.2	146
176	Catalysis by Supported Gold:Â Correlation between Catalytic Activity for CO Oxidation and Oxidation States of Gold. Journal of the American Chemical Society, 2004, 126, 2672-2673.	6.6	496
177	Structure and Reactivity of a Mononuclear Gold-Complex Catalyst Supported on Magnesium Oxide. Angewandte Chemie, 2003, 115, 714-717.	1.6	30
178	Structure and Reactivity of a Mononuclear Gold-Complex Catalyst Supported on Magnesium Oxide. Angewandte Chemie - International Edition, 2003, 42, 690-693.	7.2	152
179	Oxidation of Supported Rhodium Clusters by Support Hydroxy Groups. Angewandte Chemie - International Edition, 2003, 42, 1391-1394.	7.2	107
180	Role of Cluster Size in Catalysis: Spectroscopic Investigation of γ-Al2O3-Supported Ir4and Ir6during Ethene Hydrogenation. Journal of the American Chemical Society, 2003, 125, 7107-7115.	6.6	100

#	Article	IF	CITATIONS
181	Carbonylation and Decarbonylation of γ-Al2O3-Supported Hexarhodium Clusters:  Characterization by Infrared, 13C NMR, and Extended X-ray Absorption Fine Structure Spectroscopies. Langmuir, 2003, 19, 9494-9503.	1.6	12
182	MgO-Supported Rh6and Ir6:Â Structural Characterization during the Catalysis of Ethene Hydrogenation. Journal of Physical Chemistry B, 2003, 107, 5519-5528.	1.2	47
183	Supported molecular catalysts: metal complexes and clusters on oxides and zeolites. Dalton Transactions, 2003, , 3303.	1.6	190
184	Synthesis and Structural Characterization of Iridium Clusters Formed Inside and Outside the Pores of Zeolite NaY. Journal of Physical Chemistry B, 2003, 107, 11589-11596.	1.2	19
185	Synthesis and Structure of Tetrairidium Clusters on TiO2 Powder:  Characterization by Infrared and Extended X-ray Absorption Fine Structure Spectroscopies. Journal of Physical Chemistry B, 2002, 106, 1229-1238.	1.2	21
186	Simultaneous Presence of Cationic and Reduced Gold in Functioning MgO-Supported CO Oxidation Catalysts:Â Evidence from X-ray Absorption Spectroscopy. Journal of Physical Chemistry B, 2002, 106, 7659-7665.	1.2	157
187	Propene Hydrogenation Catalyzed by γ-Al2O3-Supported Ir4 Clusters:  Inhibition by Dehydrogenated Propene Derivatives on Ir4. Langmuir, 2002, 18, 2152-2157.	1.6	20
188	An active and selective alkane isomerization catalyst: iron- and platinum-promoted tungstated zirconia. Chemical Communications, 2001, , 321-322.	2.2	26
189	Synthesis and Characterization of Site-Isolated Hexarhodium Clusters on Titania Powder. Journal of Physical Chemistry B, 2001, 105, 3269-3281.	1.2	22
190	Gold Nanoclusters Supported on MgO:  Synthesis, Characterization, and Evidence of Au6. Nano Letters, 2001, 1, 689-692.	4.5	92
191	Structure and Bonding of a Site-Isolated Transition Metal Complex:Â Rhodium Dicarbonyl in Highly Dealuminated Zeolite Y. Journal of the American Chemical Society, 2000, 122, 8056-8066.	6.6	116
192	Temperature programmed desorption of hydrogen from Î ³ -Al2O3-supported platinum catalysts with and without tungsten. Physical Chemistry Chemical Physics, 2000, 2, 1997-2003.	1.3	5
193	129Xe NMR Spectroscopy of Metal Carbonyl Clusters and Metal Clusters in Zeolite NaY. Journal of the American Chemical Society, 1999, 121, 7674-7681.	6.6	19
194	Catalytic Hydroprocessing of Aromatic Compounds:Â Effects of Nickel and Vanadium Sulfide Deposits on Reactivities and Reaction Networks. Industrial & Engineering Chemistry Research, 1996, 35, 3203-3209.	1.8	19
195	Propane conversion in the presence of iron- and manganese-promoted sulfated zirconia: evidence of Olah carbocation chemistry. Catalysis Letters, 1995, 34, 351-358.	1.4	20
196	Neopentane cracking catalyzed by iron- and manganese-promoted sulfated zirconia. Catalysis Letters, 1995, 31, 153-163.	1.4	42
197	Extending the Metal Cluster–Metal Surface Analogy. Angewandte Chemie International Edition in English, 1993, 32, 228-229.	4.4	39
198	[Pt6(CO)12]2- and [Pt9(CO)18]2- supported on magnesia: synthesis and spectroscopic characterization. The Journal of Physical Chemistry, 1993, 97, 9465-9469.	2.9	11

#	Article	IF	CITATIONS
199	Organometallic chemistry on the basic magnesium oxide surface: formation of [HIr4(CO)11]-, [Ir6(CO)15]2-, and [Ir8(CO)22]2 Inorganic Chemistry, 1992, 31, 2939-2947.	1.9	48
200	Mononuclear, trinuclear, and metallic rhenium catalysts supported on magnesia: effects of structure on catalyst performance. The Journal of Physical Chemistry, 1990, 94, 8451-8456.	2.9	27
201	Surface Catalytic Sites Prepared from [HRe(CO)5] and [H3Re3(CO)12]: Mononuclear, Trinuclear, and Metallic Rhenium Catalysts Supported on MgO. The Journal of Physical Chemistry, 1990, 94, 8439-8450.	2.9	115
202	Transformation of atomically dispersed platinum in SAPO-37 into platinum clusters: catalyst for ethylene hydrogenation. Catalysis Science and Technology, 0, , .	2.1	2