Justin M Notestein

List of Publications by Year
in descending order

109 papers	3,579 citations	159585 30 h-index	161849 54 g-index
116 all docs	116 docs citations	116 times ranked	4090 citing authors

#	Article	IF	Citations
1	Enhancing Heterogeneous Catalysis through Cooperative Hybrid Organicâ€“Inorganic Interfaces. Chemistry - A European Journal, 2006, 12, 3954-3965.	3.3	231
2	Machine learning the quantum-chemical properties of metalâ€“organic frameworks for accelerated materials discovery. Matter, 2021, 4, 1578-1597.	10.0	170
3	Tandem In ₂ O ₃ -Pt/Al ₂ O ₃ catalyst for coupling of propane dehydrogenation to selective H ₂ combustion. Science, 2021, 371, 1257-1260.	12.6	148
4	MOF-enabled confinement and related effects for chemical catalyst presentation and utilization. Chemical Society Reviews, 2022, 51, 1045-1097.	38.1	148
5	Periodic Trends in Highly Dispersed Groups IV and V Supported Metal Oxide Catalysts for Alkene Epoxidation with H₂O₂. ACS Catalysis, 2015, 5, 5077-5088.	11.2	115
6	Consequences of Confinement for Alkene Epoxidation with Hydrogen Peroxide on Highly Dispersed Group 4 and 5 Metal Oxide Catalysts. ACS Catalysis, 2018, 8, 2995-3010.	11.2	111
7	Shape-selective sieving layers on an oxide catalyst surface. Nature Chemistry, 2012, 4, 1030-1036.	13.6	110
8	Structureâ€“Activity Relationships That Identify Metalâ€“Organic Framework Catalysts for Methane Activation. ACS Catalysis, 2019, 9, 3576-3587.	11.2	105
9	Grafted Metallocalixarenes as Single-Site Surface Organometallic Catalysts. Journal of the American Chemical Society, 2004, 126, 16478-16486.	13.7	95
10	Identifying promising metalâ€“organic frameworks for heterogeneous catalysis via highâ€throughput periodic density functional theory. Journal of Computational Chemistry, 2019, 40, 1305-1318.	3.3	87
11	Stable Metalâ€“Organic Framework-Supported Niobium Catalysts. Inorganic Chemistry, 2016, 55, 11954-11961.	4.0	85
12	Synthesisâˆ’Structureâ€“Function Relationships of Silica-Supported Niobium(V) Catalysts for Alkene Epoxidation with H₂O₂. ACS Catalysis, 2016, 6, 6124-6134.	11.2	78
13	The First Single-Step Immobilization of a Calix-[4]-arene onto the Surface of Silica. Chemistry of Materials, 2002, 14, 3364-3368.	6.7	76
14	Pushing the Limits on Metalâ€“Organic Frameworks as a Catalyst Support: NU-1000 Supported Tungsten Catalysts for o-Xylene Isomerization and Disproportionation. Journal of the American Chemical Society, 2018, 140, 8535-8543.	13.7	73
15	Tuning the Redox Activity of Metalâ€“Organic Frameworks for Enhanced, Selective O₂ Binding: Design Rules and Ambient Temperature O₂ Chemisorption in a Cobaltâ€“Triazolate Framework. Journal of the American Chemical Society, 2020, 142, 4317-4328.	13.7	67
16	Photoluminescence and Charge-Transfer Complexes of Calixarenes Grafted on TiO2 Nanoparticles. Chemistry of Materials, 2007, 19, 4998-5005.	6.7	65
17	Structural Assessment and Catalytic Consequences of the Oxygen Coordination Environment in Grafted Tiâˆ’Calixarenes. Journal of the American Chemical Society, 2007, 129, 1122-1131.	13.7	65
18	The Role of Outer-Sphere Surface Acidity in Alkene Epoxidation Catalyzed by Calixareneâˆ’Ti(IV) Complexes. Journal of the American Chemical Society, 2007, 129, 15585-15595.	13.7	61

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19	Computational Predictions and Experimental Validation of Alkane Oxidative Dehydrogenation by Fe₂M MOF Nodes. ACS Catalysis, 2020, 10, 1460-1469.	11.2	53
20	The Role of Amine Surface Density in Carbon Dioxide Adsorption on Functionalized Mixed Oxide Surfaces. ChemSusChem, 2011, 4, 1671-1678.	6.8	51
21	Depositing SiO₂ on Al₂O₃: a Route to Tunable BrÃ¸nsted Acid Catalysts. ACS Catalysis, 2016, 6, 6156-6164.	11.2	50
22	Adsorption of n-Butanol from Dilute Aqueous Solution with Grafted Calixarenes. Langmuir, 2011, 27, 11990-11998.	3.5	46
23	Grafted Taâ€"calixarenes: Tunable, selective catalysts for direct olefin epoxidation with aqueous hydrogen peroxide. Journal of Catalysis, 2010, 275, 191-201.	6.2	44
24	Manganese Triazacyclononane Oxidation Catalysts Grafted under Reaction Conditions on Solid Cocatalytic Supports. Journal of the American Chemical Society, 2011, 133, 18684-18695.	13.7	44
25	High-throughput predictions of metalâ€"organic framework electronic properties: theoretical challenges, graph neural networks, and data exploration. Npj Computational Materials, 2022, 8, .	8.7	43
26	Silica support modifications to enhance Pd-catalyzed deoxygenation of stearic acid. Applied Catalysis B: Environmental, 2016, 192, 93-100.	20.2	40
27	Well-Defined Diblock Copolymers via Termination of Living ROMP with Anionically Polymerized Macromolecular Aldehydes. Macromolecules, 2002, 35, 1985-1987.	4.8	36
28	Understanding the Hydrodenitrogenation of Heteroaromatics on a Molecular Level. ACS Catalysis, 2016, 6, 1455-1476.	11.2	34
29	Energetics of Small Molecule and Water Complexation in Hydrophobic Calixarene Cavities. Langmuir, 2006, 22, 4004-4014.	3.5	32
30	Role of surface reconstruction on Cu/TiO2 nanotubes for CO2 conversion. Applied Catalysis B: Environmental, 2019, 255, 117754.	20.2	32
31	The Synthesis Science of Targeted Vapor-Phase Metalâ€"Organic Framework Postmodification. Journal of the American Chemical Society, 2020, 142, 242-250.	13.7	32
32	Surface speciation and alkane oxidation with highly dispersed Fe(III) sites on silica. Journal of Catalysis, 2011, 279, 103-110.	6.2	31
33	Size-Selective Synthesis and Stabilization of Small Silver Nanoparticles on TiO₂ Partially Masked by SiO₂. Chemistry of Materials, 2015, 27, 1269-1277.	6.7	31
34	Rate and Selectivity Control in Thioether and Alkene Oxidation with H₂O₂ over Phosphonateâ€Modified Niobium(V)â€"Silica Catalysts. ChemCatChem, 2017, 9, 3714-3724.	3.7	31
35	Mechanism of Regioselective Ring-Opening Reactions of 1,2-Epoxyoctane Catalyzed by Tris(pentafluorophenyl)borane: A Combined Experimental, Density Functional Theory, and Microkinetic Study. ACS Catalysis, 2018, 8, 11119-11133.	11.2	31
36	The effect of support morphology on CoOX/CeO2 catalysts for the reduction of NO by CO. Journal of Catalysis, 2018, 366, 150-158.	6.2	31

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37	Quantifying accessible sites and reactivity on titaniaâ€“silica (photo)catalysts: Refining TOF calculations. Journal of Catalysis, 2014, 309, 156-165.	6.2	30
38	Cyclohexane oxidative dehydrogenation over copper oxide catalysts. Journal of Catalysis, 2016, 341, 180-190.	6.2	30
39	A heterogeneous, selective oxidation catalyst based on Mn triazacyclononane grafted under reaction conditions. Chemical Communications, 2010, 46, 1640.	4.1	28
40	Realizing the data-driven, computational discovery of metal-organic framework catalysts. Current Opinion in Chemical Engineering, 2022, 35, 100760.	7.8	28
41	In Situ Characterization of Highly Dispersed, Ceria-Supported Fe Sites for NO Reduction by CO. Journal of Physical Chemistry C, 2015, 119, 4224-4234.	3.1	27
42	MOFs and their grafted analogues: regioselective epoxide ring-opening with Zr₆ nodes. Catalysis Science and Technology, 2016, 6, 6480-6484.	4.1	27
43	Identifying Boron Active Sites for the Oxidative Dehydrogenation of Propane. ACS Catalysis, 2021, 11, 9370-9376.	11.2	27
44	Counting Active Sites on Titanium Oxideâ€“Silica Catalysts for Hydrogen Peroxide Activation through Inâ€…Situ Poisoning with Phenylphosphonic Acid. ChemCatChem, 2014, 6, 3215-3222.	3.7	26
45	Kinetic study of cyclooctene epoxidation with aqueous hydrogen peroxide over silica-supported calixareneâ€“Ta(V). Applied Catalysis A: General, 2010, 387, 45-54.	4.3	25
46	Modulating Chemical Environments of Metalâ€“Organic Framework-Supported Molybdenum(VI) Catalysts for Insights into the Structureâ€“Activity Relationship in Cyclohexene Epoxidation. Journal of the American Chemical Society, 2022, 144, 3554-3563.	13.7	25
47	Role of Support Lewis Acid Strength in Copper-Oxide-Catalyzed Oxidative Dehydrogenation of Cyclohexane. ACS Catalysis, 2018, 8, 7598-7607.	11.2	24
48	Zr₆O₈ Node-Catalyzed Butene Hydrogenation and Isomerization in the Metalâ€“Organic Framework NU-1000. ACS Catalysis, 2020, 10, 14959-14970.	11.2	24
49	Supramolecular Porous Assemblies of Atomically Precise Catalytically Active Cerium-Based Clusters. Chemistry of Materials, 2020, 32, 8522-8529.	6.7	23
50	Catalyst structure and substituent effects on epoxidation of styrenics with immobilized Mn(tmtacn) complexes. Applied Catalysis A: General, 2016, 511, 78-86.	4.3	22
51	Multifunctional photo/thermal catalysts for the reduction of carbon dioxide. Catalysis Today, 2017, 280, 65-73.	4.4	22
52	Catalytic reduction of NO with H2 over redox-cycling Fe on CeO2. Applied Catalysis B: Environmental, 2015, 168-169, 68-76.	20.2	21
53	Fast Cyclohexane Oxidation Under Mild Reaction Conditions Through a Controlled Creation of Redoxâ€Active Fe(II/III) Sites in a Metalâˆ’Organic Framework. ChemCatChem, 2019, 11, 5650-5656.	3.7	21
54	Heterometallic Ce^{IV}/ V^V Oxo Clusters with Adjustable Catalytic Reactivities. Journal of the American Chemical Society, 2021, 143, 21056-21065.	13.7	21

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55	Strong electrostatic adsorption of Pt onto SiO2 partially overcoated Al2O3â€"Towards single atom catalysts. Journal of Chemical Physics, 2019, 151, 214703.	3.0	20
56	Structural and electronic promotion with alkali cations of silica-supported Fe(III) sites for alkane oxidation. Journal of Catalysis, 2012, 296, 77-85.	6.2	19
57	Predicting NO_x Catalysis by Quantifying Ce³⁺ from Surface and Lattice Oxygen. ACS Applied Materials & Interfaces, 2017, 9, 30670-30678.	8.0	19
58	Enhancing the Regioselectivity of B(C₆F₅)₃-Catalyzed Epoxide Alcoholysis Reactions Using Hydrogen-Bond Acceptors. ACS Catalysis, 2019, 9, 9663-9670.	11.2	19
59	Solid Cocatalysts for Activating Manganese Triazacyclononane Oxidation Catalysts. ACS Catalysis, 2011, 1, 1691-1701.	11.2	18
60	Synthesis and stabilization of small Pt nanoparticles on TiO2 partially masked by SiO2. Applied Catalysis A: General, 2018, 551, 122-128.	4.3	18
61	Comprehensive Phase Diagrams of MoS₂ Edge Sites Using Dispersion-Corrected DFT Free Energy Calculations. Journal of Physical Chemistry C, 2018, 122, 15318-15329.	3.1	18
62	Isobutane Dehydrogenation over Bulk and Supported Molybdenum Sulfide Catalysts. Industrial & Engineering Chemistry Research, 2020, 59, 1113-1122.	3.7	18
63	Cyclohexene epoxidation with H₂O₂ in the vapor and liquid phases over a vanadium-based metalâ€"organic framework. Catalysis Science and Technology, 2020, 10, 4580-4585.	4.1	18
64	Vapor-phase ethanol carbonylation with heteropolyacid-supported Rh. Journal of Catalysis, 2015, 325, 1-8.	6.2	17
65	Vapor-Phase Cyclohexene Epoxidation by Single-Ion Fe(III) Sites in Metalâ€"Organic Frameworks. Inorganic Chemistry, 2021, 60, 2457-2463.	4.0	17
66	Acceptorless Dehydrogenative Coupling of Neat Alcohols Using Group VI Sulfide Catalysts. ACS Sustainable Chemistry and Engineering, 2017, 5, 4890-4896.	6.7	16
67	Ni(ii) complex on a bispyridine-based porous organic polymer as a heterogeneous catalyst for ethylene oligomerization. Catalysis Science and Technology, 2017, 7, 4351-4354.	4.1	16
68	In-situ IR spectroscopy as a probe of oxidation/reduction of Ce in nanostructured CeO2. Applied Surface Science, 2018, 445, 548-554.	6.1	16
69	Comparing GGA, GGA+U, and meta-GGA functionals for redox-dependent binding at open metal sites in metalâ€"organic frameworks. Journal of Chemical Physics, 2020, 152, 224101.	3.0	16
70	Demonstrating the Critical Role of Solvation in Supported Ti and Nb Epoxidation Catalysts via Vapor-Phase Kinetics. ACS Catalysis, 2020, 10, 2817-2825.	11.2	16
71	Recovery of Dilute Aqueous Acetone, Butanol, and Ethanol with Immobilized Calixarene Cavities. ACS Applied Materials & Interfaces, 2014, 6, 289-297.	8.0	15
72	Strong Influence of the Nucleophile on the Rate and Selectivity of 1,2-Epoxyoctane Ring Opening Catalyzed by Tris(pentafluorophenyl)borane, B(C₆F₅)₃. ACS Catalysis, 2019, 9, 11589-11602.	11.2	14

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73	Highâ€Valent Metalâ€“Oxo Species at the Nodes of Metalâ€“Triazolate Frameworks: The Effects of Ligand Exchange and Twoâ€State Reactivity for Câ^'H Bond Activation. Angewandte Chemie - International Edition, 2020, 59, 19494-19502.	13.8	14
74	Increased productivity in ethylene carbonylation by zeolite-supported molybdenum carbonyls. Journal of Catalysis, 2016, 338, 313-320.	6.2	13
75	Identifying properties of low-loaded CoOX/CeO2 via X-ray absorption spectroscopy for NO reduction by CO. Journal of Catalysis, 2020, 381, 355-362.	6.2	13
76	Gas phase acceptorless dehydrogenative coupling of ethanol over bulk MoS2 and spectroscopic measurement of structural disorder. Journal of Catalysis, 2018, 366, 159-166.	6.2	12
77	Vapor phase ethanol carbonylation over Rh supported on zeolite 13X. Applied Catalysis A: General, 2016, 520, 122-131.	4.3	11
78	Evidence for Copper Dimers in Low-Loaded CuO_x/SiO₂ Catalysts for Cyclohexane Oxidative Dehydrogenation. ACS Catalysis, 2018, 8, 9775-9789.	11.2	11
79	Catalytic dehydrogenation of isobutane over supported MoOx/K-Al2O3. Journal of Catalysis, 2021, 397, 212-222.	6.2	11
80	Microkinetic modeling of cis-cyclooctene oxidation on heterogeneous Mnâ€“tmtacn complexes. Journal of Catalysis, 2012, 291, 17-25.	6.2	10
81	In situ FTIR spectroscopy of highly dispersed FeOx catalysts for NO reduction: Role of Na promoter. Catalysis Today, 2016, 267, 56-64.	4.4	10
82	Hybrid Approach for Selective Sulfoxidation via Bioelectrochemically Derived Hydrogen Peroxide over a Niobium(V)â€“Silica Catalyst. ACS Sustainable Chemistry and Engineering, 2018, 6, 7880-7889.	6.7	10
83	Direct Visualization of Independent Ta Centers Supported on Two-Dimensional TiO₂ Nanosheets. Nano Letters, 2019, 19, 8103-8108.	9.1	10
84	Controlled Deposition of Silica on Titania-Silica to Alter the Active Site Surroundings on Epoxidation Catalysts. ACS Catalysis, 2020, 10, 13008-13018.	11.2	10
85	Graftable chiral ligands for surface organometallic materials: calixarenes bearing asymmetric centers directly attached to the lower rim. New Journal of Chemistry, 2008, 32, 1314.	2.8	9
86	Increasing the Aromatic Selectivity of Quinoline Hydrogenolysis Using Pd/MOxâ€“Al2O3. Catalysis Letters, 2014, 144, 1832-1838.	2.6	9
87	The role of iodide promoters and the mechanism of ethylene carbonylation catalyzed by molybdenum hexacarbonyl. Journal of Catalysis, 2014, 319, 211-219.	6.2	9
88	Highâ€Valent Metalâ€“Oxo Species at the Nodes of Metalâ€“Triazolate Frameworks: The Effects of Ligand Exchange and Twoâ€State Reactivity for Câ^'H Bond Activation. Angewandte Chemie, 2020, 132, 19662-19670.	2.0	9
89	Creating BrÃ¸nsted acidity at the SiO2-Nb2O5 interface. Journal of Catalysis, 2021, 394, 387-396.	6.2	8
90	Synthesis of a family of peracid-silica materials and their use as alkene epoxidation reagents. Microporous and Mesoporous Materials, 2016, 225, 289-295.	4.4	6

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91	Exploring mechanistic routes for light alkane oxidation with an ironâ€“triazolate metalâ€“organic framework. Physical Chemistry Chemical Physics, 2022, 24, 8129-8141.	2.8	6
92	Mechanistic Investigation of Enhanced Catalytic Selectivity toward Alcohol Oxidation with Ce Oxysulfate Clusters. Journal of the American Chemical Society, 2022, 144, 12092-12101.	13.7	6
93	Câ€“N bond hydrogenolysis of aniline and cyclohexylamine over TaOxâ€“Al2O3. New Journal of Chemistry, 2016, 40, 6001-6004.	2.8	5
94	Investigating the effect of metal nuclearity on activity for ethylene hydrogenation by metal-organic-framework-supported oxy-Ni(II) catalysts. Journal of Catalysis, 2022, 407, 162-173.	6.2	5
95	Identifying Support Effects in Au-Catalyzed CO Oxidation. ACS Catalysis, 2021, 11, 11921-11928.	11.2	4
96	Improving and stabilizing fluorinated aryl borane catalysts for epoxide ring-opening. Applied Catalysis A: General, 2022, 636, 118601.	4.3	4
97	A tri-layer approach to controlling nanopore formation in oxide supports. Nano Research, 2019, 12, 1223-1228.	10.4	3
98	Covalent Grafting of m-Phenylene-Ethynylene Oligomers to Oxide Surfaces. Chemistry of Materials, 2010, 22, 5319-5327.	6.7	2
99	Photoâ€Initiated Reduction of CO 2 by H 2 on Silica Surface. ChemSusChem, 2018, 11, 1163-1168.	6.8	2
100	Submonolayer Is Enough: Switching Reaction Channels on Pt/SiO2 by Atomic Layer Deposition. Journal of Physical Chemistry C, 2021, 125, 18725-18733.	3.1	2
101	Assessment of catalysts for oxidative coupling of methane and ethylene. Catalysis Today, 2023, 416, 113770.	4.4	2
102	Interfacial Unit-Dependent Catalytic Activity for CO Oxidation over Cerium Oxysulfate Cluster Assemblies. ACS Applied Materials & Interfaces, 2022, 14, 33515-33524.	8.0	2
103	A Unique Qualitative GC Experiment for an Undergraduate Instrumental Methods Course Using Selective Photoionization Detectors. Journal of Chemical Education, 1998, 75, 360.	2.3	1
104	Promoter Effects on Catalyst Selectivity and Stability for Propylene Partial Oxidation to Acrolein. Catalysis Letters, 2020, 150, 826-836.	2.6	1
105	Molybdenum oxide and sulfide active sites for isobutane dehydrogenation with methanol as a probe molecule. Journal of Catalysis, 2022, 413, 498-508.	6.2	1
106	R. Åebesta (ed.): Enantioselective Homogeneous Supported Catalysis. Catalysis Letters, 2012, 142, 1150-1151.	2.6	0
107	Photo-Initiated Reduction of CO2 by H2 on Silica Surface. ChemSusChem, 2018, 11, 1135-1135.	6.8	0
108	Mapping the thermal entrenchment behavior of Pd nanoparticles on planar SiO2 supports. Nanoscale, 2020, 12, 14245-14258.	5.6	0

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109	Orientation of 1,1â€²-Bi-2-naphthol Grafted onto TiO₂. Journal of Physical Chemistry C, 2022, 126, 7980-7990.	3.1	0