Yuriy Roman-Leshkov

List of Publications by Year
in descending order

143 papers	19,314 citations	15504 65 h-index	11308 136 g-index
179 all docs	179 docs citations	179 times ranked	14490 citing authors

#	Article	IF	Citations
1	Production of dimethylfuran for liquid fuels from biomass-derived carbohydrates. Nature, 2007, 447, 982-985.	27.8	2,011
2	Phase Modifiers Promote Efficient Production of Hydroxymethylfurfural from Fructose. Science, 2006, 312, 1933-1937.	12.6	1,466
3	Production of 5-hydroxymethylfurfural and furfural by dehydration of biomass-derived mono- and poly-saccharides. Green Chemistry, 2007, 9, 342-350.	9.0	1,060
4	Tin-containing zeolites are highly active catalysts for the isomerization of glucose in water. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6164-6168.	7.1	861
5	Mechanism of Glucose Isomerization Using a Solid Lewis Acid Catalyst in Water. Angewandte Chemie - International Edition, 2010, 49, 8954-8957.	13.8	612
6	â€œOne-Potâ€•Synthesis of 5-(Hydroxymethyl)furfural from Carbohydrates using Tin-Beta Zeolite. ACS Catalysis, 2011, 1, 408-410.	11.2	607
7	Self-assembly of noble metal monolayers on transition metal carbide nanoparticle catalysts. Science, 2016, 352, 974-978.	12.6	495
8	Chemical and biological catalysis for plastics recycling and upcycling. Nature Catalysis, 2021, 4, 539-556.	34.4	420
9	Guidelines for performing lignin-first biorefining. Energy and Environmental Science, 2021, 14, 262-292.	30.8	416
10	Solvent Effects on Fructose Dehydration to 5-Hydroxymethylfurfural in Biphasic Systems Saturated with Inorganic Salts. Topics in Catalysis, 2009, 52, 297-303.	2.8	407
11	Domino Reaction Catalyzed by Zeolites with BrÃ¸nsted and Lewis Acid Sites for the Production of Î³â€Valerolactone from Furfural. Angewandte Chemie - International Edition, 2013, 52, 8022-8025.	13.8	366
12	Insights into the catalytic activity and surface modification of MoO₃ during the hydrodeoxygenation of lignin-derived model compounds into aromatic hydrocarbons under low hydrogen pressures. Energy and Environmental Science, 2014, 7, 2660-2669.	30.8	356
13	Metalloenzyme-like catalyzed isomerizations of sugars by Lewis acid zeolites. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9727-9732.	7.1	354
14	Catalytic Oxidation of Methane into Methanol over Copper-Exchanged Zeolites with Oxygen at Low Temperature. ACS Central Science, 2016, 2, 424-429.	11.3	353
15	Activation of Carbonyl-Containing Molecules with Solid Lewis Acids in Aqueous Media. ACS Catalysis, 2011, 1, 1566-1580.	11.2	349
16	Effective hydrodeoxygenation of biomass-derived oxygenates into unsaturated hydrocarbons by MoO3 using low H2 pressures. Energy and Environmental Science, 2013, 6, 1732.	30.8	289
17	Tuning Redox Transitions via Inductive Effect in Metal Oxides and Complexes, and Implications in Oxygen Electrocatalysis. Joule, 2018, 2, 225-244.	24.0	283
18	Emerging catalytic processes for the production of adipic acid. Catalysis Science and Technology, 2013, 3, 1465-1479.	4.1	266

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19	Reductive Catalytic Fractionation of Corn Stover Lignin. ACS Sustainable Chemistry and Engineering, 2016, 4, 6940-6950.	6.7	235
20	Reactivity and stability investigation of supported molybdenum oxide catalysts for the hydrodeoxygenation (HDO) of m-cresol. Journal of Catalysis, 2015, 331, 86-97.	6.2	205
21	Engineering Nonâ€sintered, Metalâ€Terminated Tungsten Carbide Nanoparticles for Catalysis. Angewandte Chemie - International Edition, 2014, 53, 5131-5136.	13.8	203
22	Heterogeneous Dielsâ€“Alder catalysis for biomass-derived aromatic compounds. Green Chemistry, 2017, 19, 3468-3492.	9.0	201
23	Flowthrough Reductive Catalytic Fractionation of Biomass. Joule, 2017, 1, 613-622.	24.0	197
24	SSZ-13 Crystallization by Particle Attachment and Deterministic Pathways to Crystal Size Control. Journal of the American Chemical Society, 2015, 137, 13007-13017.	13.7	191
25	Continuous Partial Oxidation of Methane to Methanol Catalyzed by Diffusion-Paired Copper Dimers in Copper-Exchanged Zeolites. Journal of the American Chemical Society, 2019, 141, 11641-11650.	13.7	191
26	Conversion of Polyolefin Waste to Liquid Alkanes with Ru-Based Catalysts under Mild Conditions. Jacs Au, 2021, 1, 8-12.	7.9	179
27	A Continuous Flow Strategy for the Coupled Transfer Hydrogenation and Etherification of 5â€(Hydroxymethyl)furfural using Lewis Acid Zeolites. ChemSusChem, 2014, 7, 2255-2265.	6.8	177
28	A Machine Learning Approach to Zeolite Synthesis Enabled by Automatic Literature Data Extraction. ACS Central Science, 2019, 5, 892-899.	11.3	176
29	Investigation of the reaction kinetics of isolated Lewis acid sites in Beta zeolites for the Meerweinâ€“Ponndorfâ€“Verley reduction of methyl levulinate to Î³-valerolactone. Journal of Catalysis, 2014, 320, 198-207.	6.2	165
30	Operando NAP-XPS unveils differences in MoO3 and Mo2C during hydrodeoxygenation. Nature Catalysis, 2018, 1, 960-967.	34.4	163
31	Sn-Beta zeolites with borate salts catalyse the epimerization of carbohydrates via an intramolecular carbon shift. Nature Communications, 2012, 3, 1109.	12.8	155
32	Methane to Acetic Acid over Cu-Exchanged Zeolites: Mechanistic Insights from a Site-Specific Carbonylation Reaction. Journal of the American Chemical Society, 2015, 137, 1825-1832.	13.7	149
33	Acidâ€“Base Pairs in Lewis Acidic Zeolites Promote Direct Aldol Reactions by Soft Enolization. Angewandte Chemie - International Edition, 2015, 54, 9835-9838.	13.8	148
34	Synthesis and Catalytic Activity of Sn-MFI Nanosheets for the Baeyerâ€“Villiger Oxidation of Cyclic Ketones. ACS Catalysis, 2012, 2, 2695-2699.	11.2	143
35	Dynamic Nuclear Polarization NMR Enables the Analysis of Sn-Beta Zeolite Prepared with Natural Abundance ¹¹⁹Sn Precursors. Journal of the American Chemical Society, 2014, 136, 6219-6222.	13.7	139
36	Activating earth-abundant electrocatalysts for efficient, low-cost hydrogen evolution/oxidation: sub-monolayer platinum coatings on titanium tungsten carbide nanoparticles. Energy and Environmental Science, 2016, 9, 3290-3301.	30.8	138

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37	Lewis Acid Zeolites for Biomass Conversion: Perspectives and Challenges on Reactivity, Synthesis, and Stability. Annual Review of Chemical and Biomolecular Engineering, 2016, 7, 663-692.	6.8	137
38	Viewpoint on the Partial Oxidation of Methane to Methanol Using Cu- and Fe-Exchanged Zeolites. ACS Catalysis, 2018, 8, 8306-8313.	11.2	133
39	Differences in S/G ratio in natural poplar variants do not predict catalytic depolymerization monomer yields. Nature Communications, 2019, 10, 2033.	12.8	127
40	Tunable metal hydroxideâ€“organic frameworks for catalysing oxygen evolution. Nature Materials, 2022, 21, 673-680.	27.5	123
41	Engineering stable electrocatalysts by synergistic stabilization between carbide cores and Pt shells. Nature Materials, 2020, 19, 287-291.	27.5	120
42	One-pot synthesis of MWW zeolite nanosheets using a rationally designed organic structure-directing agent. Chemical Science, 2015, 6, 6320-6324.	7.4	118
43	Solid Lewis Acids Catalyze the Carbonâ€“Carbon Coupling between Carbohydrates and Formaldehyde. ACS Catalysis, 2015, 5, 972-977.	11.2	116
44	Impact of Controlling the Site Distribution of Al Atoms on Catalytic Properties in Ferrierite-Type Zeolites. Journal of Physical Chemistry C, 2011, 115, 1096-1102.	3.1	114
45	Revisiting alkaline aerobic lignin oxidation. Green Chemistry, 2018, 20, 3828-3844.	9.0	114
46	Hydrogenolysis of Polypropylene and Mixed Polyolefin Plastic Waste over Ru/C to Produce Liquid Alkanes. ACS Sustainable Chemistry and Engineering, 2021, 9, 11661-11666.	6.7	110
47	Kinetic Studies of Lignin Solvolysis and Reduction by Reductive Catalytic Fractionation Decoupled in Flow-Through Reactors. ACS Sustainable Chemistry and Engineering, 2018, 6, 7951-7959.	6.7	106
48	Techno-economic analysis and life cycle assessment of a biorefinery utilizing reductive catalytic fractionation. Energy and Environmental Science, 2021, 14, 4147-4168.	30.8	106
49	Selective Catalytic Olefin Epoxidation with Mn^{II}-Exchanged MOF-5. ACS Catalysis, 2018, 8, 596-601.	11.2	105
50	Machine Learning Applied to Zeolite Synthesis: The Missing Link for Realizing High-Throughput Discovery. Accounts of Chemical Research, 2019, 52, 2971-2980.	15.6	94
51	Toward low-cost biological and hybrid biological/catalytic conversion of cellulosic biomass to fuels. Energy and Environmental Science, 2022, 15, 938-990.	30.8	93
52	Insights into the stability of gold nanoparticles supported on metal oxides for the base-free oxidation of glucose to gluconic acid. Green Chemistry, 2014, 16, 719-726.	9.0	92
53	Interrogating the Lewis Acidity of Metal Sites in Beta Zeolites with ¹⁵N Pyridine Adsorption Coupled with MAS NMR Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 28533-28544.	3.1	91
54	A priori control of zeolite phase competition and intergrowth with high-throughput simulations. Science, 2021, 374, 308-315.	12.6	90

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55	Reductive Catalytic Fractionation of C-Lignin. ACS Sustainable Chemistry and Engineering, 2018, 6, 11211-11218.	6.7	89
56	Transitionâ€Metal Nitride Core@Nobleâ€Metal Shell Nanoparticles as Highly CO Tolerant Catalysts. Angewandte Chemie - International Edition, 2017, 56, 8828-8833.	13.8	88
57	Tandem Heterogeneous Catalysis for Polyethylene Depolymerization via an Olefin-Intermediate Process. ACS Sustainable Chemistry and Engineering, 2021, 9, 623-628.	6.7	85
58	Solar thermal catalytic reforming of natural gas: a review on chemistry, catalysis and system design. Catalysis Science and Technology, 2015, 5, 1991-2016.	4.1	78
59	Concerted Bimetallic Nanocluster Synthesis and Encapsulation via Induced Zeolite Framework Demetallation for Shape and Substrate Selective Heterogeneous Catalysis. Angewandte Chemie - International Edition, 2018, 57, 6454-6458.	13.8	78
60	Principles and Methods for the Rational Design of Coreâ€“Shell Nanoparticle Catalysts with Ultralow Noble Metal Loadings. Accounts of Chemical Research, 2018, 51, 1054-1062.	15.6	77
61	Supported molybdenum oxides as effective catalysts for the catalytic fast pyrolysis of lignocellulosic biomass. Green Chemistry, 2016, 18, 5548-5557.	9.0	76
62	Metalloenzymeâ€Like Zeolites as Lewis Acid Catalysts for Cï£¿C Bond Formation. Angewandte Chemie - International Edition, 2015, 54, 12554-12561.	13.8	75
63	Structural Properties and Reactivity Trends of Molybdenum Oxide Catalysts Supported on Zirconia for the Hydrodeoxygenation of Anisole. ACS Sustainable Chemistry and Engineering, 2017, 5, 5293-5301.	6.7	74
64	Rhodium(0) Nanoparticles Supported on Nanocrystalline Hydroxyapatite: Highly Effective Catalytic System for the Solvent-Free Hydrogenation of Aromatics at Room Temperature. Langmuir, 2012, 28, 60-64.	3.5	66
65	Emerging opportunities for electrochemical processing to enable sustainable chemical manufacturing. Current Opinion in Chemical Engineering, 2018, 20, 159-167.	7.8	66
66	Toward rational design of stable, supported metal catalysts for aqueous-phase processing: Insights from the hydrogenation of levulinic acid. Journal of Catalysis, 2015, 329, 10-21.	6.2	65
67	Ordered Hydrogen-Bonded Alcohol Networks Confined in Lewis Acid Zeolites Accelerate Transfer Hydrogenation Turnover Rates. Journal of the American Chemical Society, 2020, 142, 19379-19392.	13.7	60
68	Electrochemical Oxygen Reduction for the Production of Hydrogen Peroxide. CheM, 2018, 4, 18-19.	11.7	57
69	Conversion of Methane into Liquid Fuelsâ€"Bridging Thermal Catalysis with Electrocatalysis. Advanced Energy Materials, 2020, 10, 2002154.	19.5	57
70	Discovering Relationships between OSDAs and Zeolites through Data Mining and Generative Neural Networks. ACS Central Science, 2021, 7, 858-867.	11.3	57
71	Encapsulation of Molybdenum Carbide Nanoclusters inside Zeolite Micropores Enables Synergistic Bifunctional Catalysis for Anisole Hydrodeoxygenation. ACS Catalysis, 2017, 7, 8147-8151.	11.2	56
72	Synthesis of Itaconic Acid Ester Analogues via Self-Aldol Condensation of Ethyl Pyruvate Catalyzed by Hafnium BEA Zeolites. ACS Catalysis, 2016, 6, 2739-2744.	11.2	54

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73	Cascade Reactions for the Continuous and Selective Production of Isobutene from Bioderived Acetic Acid Over Zinc-Zirconia Catalysts. ACS Catalysis, 2014, 4, 4196-4200.	11.2	53
74	Heterogeneous Epoxide Carbonylation by Cooperative Ion-Pair Catalysis in Co(CO)₄^{â€“}-Incorporated Cr-MIL-101. ACS Central Science, 2017, 3, 444-448.	11.3	51
75	Bifunctional Molybdenum Polyoxometalates for the Combined Hydrodeoxygenation and Alkylation of Ligninâ€Derived Model Phenolics. ChemSusChem, 2017, 10, 2226-2234.	6.8	51
76	Distinguishing Active Site Identity in Sn-Beta Zeolites Using ³¹P MAS NMR of Adsorbed Trimethylphosphine Oxide. ACS Catalysis, 2018, 8, 3076-3086.	11.2	51
77	Cerium(IV) Enhances the Catalytic Oxidation Activity of Single-Site Cu Active Sites in MOFs. ACS Catalysis, 2020, 10, 7820-7825.	11.2	50
78	A General Technoeconomic Model for Evaluating Emerging Electrolytic Processes. Energy Technology, 2020, 8, 1900994.	3.8	49
79	Computational fluid dynamics study of hydrogen generation by low temperature methane reforming in a membrane reactor. International Journal of Hydrogen Energy, 2015, 40, 3158-3169.	7.1	47
80	Continuous-Flow Production of Succinic Anhydrides via Catalytic Î²-Lactone Carbonylation by Co(CO)₄âŠ‚Cr-MIL-101. Journal of the American Chemical Society, 2018, 140, 10669-10672.	13.7	47
81	The Critical Role of Process Analysis in Chemical Recycling and Upcycling of Waste Plastics. Annual Review of Chemical and Biomolecular Engineering, 2022, 13, 301-324.	6.8	46
82	Editorsâ€™ Choiceâ€"Flooded by Success: On the Role of Electrode Wettability in CO₂ Electrolyzers that Generate Liquid Products. Journal of the Electrochemical Society, 2020, 167, 124521.	2.9	45
83	Electrocatalytic Hydrogenation of Oxygenates using Earthâ€Abundant Transitionâ€Metal Nanoparticles under Mild Conditions. ChemSusChem, 2016, 9, 1904-1910.	6.8	44
84	Solar molten salt heated membrane reformer for natural gas upgrading and hydrogen generation: A CFD model. Solar Energy, 2016, 124, 163-176.	6.1	41
85	Bismuth Substituted Strontium Cobalt Perovskites for Catalyzing Oxygen Evolution. Journal of Physical Chemistry C, 2020, 124, 6562-6570.	3.1	41
86	Mechanistic Insights into the Kinetic and Regiochemical Control of the Thiol-Promoted Catalytic Synthesis of Diphenolic Acid. ACS Catalysis, 2012, 2, 2700-2704.	11.2	38
87	Alloying Tungsten Carbide Nanoparticles with Tantalum: Impact on Electrochemical Oxidation Resistance and Hydrogen Evolution Activity. Journal of Physical Chemistry C, 2015, 119, 13691-13699.	3.1	38
88	Kinetic analysis and reaction mechanism for anisole conversion over zirconia-supported molybdenum oxide. Journal of Catalysis, 2019, 376, 248-257.	6.2	38
89	Activation of Methyltrioxorhenium for Olefin Metathesis in a Zirconium-Based Metalâ€“Organic Framework. Journal of the American Chemical Society, 2018, 140, 6956-6960.	13.7	36
90	Mesoscale Reactionâ€“Diffusion Phenomena Governing Ligninâ€First Biomass Fractionation. ChemSusChem, 2020, 13, 4495-4509.	6.8	35

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91	Lignin-KMC: A Toolkit for Simulating Lignin Biosynthesis. ACS Sustainable Chemistry and Engineering, 2019, 7, 18313-18322.	6.7	33
92	Catalytic consequences of borate complexation and pH on the epimerization of l-arabinose to l-ribose in water catalyzed by Sn-Beta zeolite with borate salts. Journal of Molecular Catalysis A, 2013, 379, 294-302.	4.8	31
93	Ultra-low loading Ru/Î³-Al 2 O 3 : A highly active and stable catalyst for low temperature solar thermal reforming of methane. Applied Catalysis B: Environmental, 2015, 168-169, 540-549.	20.2	30
94	Impact of Transition Metal Carbide and Nitride Supports on the Electronic Structure of Thin Platinum Overlayers. ACS Catalysis, 2019, 9, 7090-7098.	11.2	30
95	Spontaneous Electric Fields Play a Key Role in Thermochemical Catalysis at Metalâˆ'Liquid Interfaces. ACS Central Science, 2021, 7, 1045-1055.	11.3	30
96	Tuning the Catalytic Activity of Fe-Phthalocyanine-Based Catalysts for the Oxygen Reduction Reaction by Ligand Functionalization. ACS Catalysis, 2022, 12, 7278-7287.	11.2	30
97	Computational Investigation on Hydrodeoxygenation (HDO) of Acetone to Propylene on Î±-MoO₃ (010) Surface. Journal of Physical Chemistry C, 2017, 121, 17848-17855.	3.1	29
98	Investigating the technoâ€economic tradeâ€offs of hydrogen source using a response surface model of dropâ€in biofuel production via bioâ€oil upgrading. Biofuels, Bioproducts and Biorefining, 2012, 6, 503-520.	3.7	28
99	Production of Hydroxyl-rich Acids from Xylose and Glucose Using Sn-BEA Zeolite. ChemistrySelect, 2016, 1, 4167-4172.	1.5	27
100	A continuous flow chemistry approach for the ultrafast and low-cost synthesis of MOF-808. Green Chemistry, 2021, 23, 9982-9991.	9.0	27
101	Accelerated Synthesis of a Ni₂Cl₂(BTDD) Metalâ€"Organic Framework in a Continuous Flow Reactor for Atmospheric Water Capture. ACS Sustainable Chemistry and Engineering, 2021, 9, 3996-4003.	6.7	26
102	Flow-through solvolysis enables production of native-like lignin from biomass. Green Chemistry, 2021, 23, 5437-5441.	9.0	25
103	Realistic Surface Descriptions of Heterometallic Interfaces: The Case of TiWC Coated in Noble Metals. Journal of Physical Chemistry Letters, 2016, 7, 4475-4482.	4.6	24
104	Enhancement of Alkyne Semi-Hydrogenation Selectivity by Electronic Modification of Platinum. ACS Catalysis, 2020, 10, 6763-6770.	11.2	24
105	Selective active site placement in Lewis acid zeolites and implications for catalysis of oxygenated compounds. Chemical Science, 2020, 11, 10225-10235.	7.4	23
106	Impact of Morphological Effects on the Activity and Stability of Tungsten Carbide Catalysts for Dry Methane Reforming. Energy & Fuels, 2019, 33, 5544-5550.	5.1	22
107	Synthesis of unsupported two-dimensional molybdenum carbide nanosheets for hydrogen evolution. Materials Letters, 2020, 261, 126987.	2.6	22
108	Computational Evidence for Kinetically Controlled Radical Coupling during Lignification. ACS Sustainable Chemistry and Engineering, 2019, 7, 13270-13277.	6.7	21

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109	Identification and quantification of distinct active sites in Hf-Beta zeolites for transfer hydrogenation catalysis. Journal of Catalysis, 2021, 404, 607-619.	6.2	21
110	Acidâ€catalyzed Oxidation of Levulinate Derivatives to Succinates under Mild Conditions. ChemCatChem, 2015, 7, 916-920.	3.7	20
111	Zeolites with isolated-framework and oligomeric-extraframework hafnium species characterized with pair distribution function analysis. Physical Chemistry Chemical Physics, 2018, 20, 7914-7919.	2.8	20
112	Multi-pass flow-through reductive catalytic fractionation. Joule, 2022, 6, 1859-1875.	24.0	20
113	Tunable CHA/AEI Zeolite Intergrowths with A Priori Biselective Organic Structureâ€Directing Agents: Controlling Enrichment and Implications for Selective Catalytic Reduction of NOx. Angewandte Chemie - International Edition, 2022, 61, .	13.8	18
114	Solid-State Gelation for Nanostructured Perovskite Oxide Aerogels. Chemistry of Materials, 2019, 31, 9422-9429.	6.7	17
115	Cooperative Co 0 /Co II Sites Stabilized by a Perovskite Matrix Enable Selective Câˆ’O and Câˆ’C bond Hydrogenolysis of Oxygenated Arenes. ChemSusChem, 2019, 12, 2171-2175.	6.8	17
116	Gas-Phase Ethylene Polymerization by Single-Site Cr Centers in a Metalâ€“Organic Framework. ACS Catalysis, 2020, 10, 3864-3870.	11.2	17
117	Sustainable catalytic conversions of renewable substrates. Catalysis Science and Technology, 2014, 4, 2180.	4.1	15
118	Highly efficient methane reforming over a lowâ€loading Ru/Î³â€Al₂O₃ catalyst in a Pdâ€Ag membrane reactor. AIChE Journal, 2018, 64, 3101-3108.	3.6	15
119	Solvothermal Crystallization Kinetics and Control of Crystal Size Distribution of MOF-808 in a Continuous Flow Reactor. Crystal Growth and Design, 2021, 21, 6529-6536.	3.0	15
120	Electrochemical Activation of Câˆ’C Bonds through Mediated Hydrogen Atom Transfer Reactions. ChemSusChem, 2022, 15, .	6.8	15
121	Natural Gas and Cellulosic Biomass: A Clean Fuel Combination? Determining the Natural Gas Blending Wall in Biofuel Production. Environmental Science & Technology, 2015, 49, 8183-8192.	10.0	14
122	Hybrid Organicâˆ’Inorganic Solids That Show Shape Selectivity. Chemistry of Materials, 2010, 22, 2646-2652.	6.7	12
123	Data-Driven Design of Biselective Templates for Intergrowth Zeolites. Journal of Physical Chemistry Letters, 2021, 12, 10689-10694.	4.6	12
124	Transitionâ€Metal Nitride Core@Nobleâ€Metal Shell Nanoparticles as Highly CO Tolerant Catalysts. Angewandte Chemie, 2017, 129, 8954-8959.	2.0	11
125	Tailoring Distinct Reactive Environments in Lewis Acid Zeolites for Liquid Phase Catalysis. Accounts of Materials Research, 2021, 2, 1033-1046.	11.7	11
126	Role of Acid Catalysis in the Conversion of Lignocellulosic Biomass to Fuels and Chemicals. , 2013, , 261-288.		9

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127	Concerted Bimetallic Nanocluster Synthesis and Encapsulation via Induced Zeolite Framework Demetallation for Shape and Substrate Selective Heterogeneous Catalysis. Angewandte Chemie, 2018, 130, 6564-6568.	2.0	9
128	Machine Learning Models Predict Calculation Outcomes with the Transferability Necessary for Computational Catalysis. Journal of Chemical Theory and Computation, 2022, 18, 4282-4292.	5.3	9
129	Electroactive Nanoporous Metal Oxides and Chalcogenides by Chemical Design. Chemistry of Materials, 2017, 29, 3663-3670.	6.7	8
130	Breaking the Selectivity-Conversion Limit of Partial Methane Oxidation with Tandem Heterogeneous Catalysts. ACS Catalysis, 2021, 11, 9262-9270.	11.2	8
131	Importance of Dimer Quantification for Accurate Catalytic Evaluation of Lactic Acid Dehydration to Acrylic Acid. Industrial & Engineering Chemistry Research, 2017, 56, 5843-5851.	3.7	7
132	Influence of Framework Heteroatoms on Olefin Metathesis Activity Using MoO₃-MFI Catalysts. Organic Process Research and Development, 2018, 22, 1683-1686.	2.7	6
133	Non-Faradaic Electrochemical Promotion of BrÃ¸nsted Acid-Catalyzed Dehydration Reactions over Molybdenum Oxide. ACS Catalysis, 2022, 12, 906-912.	11.2	6
134	Al-MFI Nanosheets as Highly Active and Stable Catalysts for the Conversion of Propanal to Hydrocarbons. Topics in Catalysis, 2015, 58, 529-536.	2.8	5
135	A Career in Catalysis: James A. Dumesic. ACS Catalysis, 2021, 11, 2310-2339.	11.2	5
136	Repurposing Templates for Zeolite Synthesis from Simulations and Data Mining. Chemistry of Materials, 2022, 34, 5366-5376.	6.7	5
137	Isolation of a Side-On V(III)-(Î·2-O2) through the Intermediacy of a Low-Valent V(II) in a Metalâ€“Organic Framework. Inorganic Chemistry, 2021, 60, 18205-18210.	4.0	4
138	Reverse Microemulsion-mediated Synthesis of Monometallic and Bimetallic Early Transition Metal Carbide and Nitride Nanoparticles. Journal of Visualized Experiments, 2015, , .	0.3	3
139	Ge-Based Hybrid Composites from Ge-Rich Zeolites as Highly Conductive and Stable Electronic Materials. Chemistry of Materials, 2019, 31, 7723-7731.	6.7	3
140	High-throughput analysis of contact angle goniometry data using DropPy. SoftwareX, 2021, 14, 100665.	2.6	2
141	Understanding the Impact of Convective Transport on Intercalation Batteries Through Dimensional Analysis. Journal of the Electrochemical Society, 2020, 167, 140551.	2.9	2
142	Tunable CHA/AEI Zeolite Intergrowths with A Priori Biselective Organic Structureâ€Directing Agents: Controlling Enrichment and Implications for Selective Catalytic Reduction of NOx. Angewandte Chemie, 0, , .	2.0	1
143	Innentitelbild: Domino Reaction Catalyzed by Zeolites with BrÃ¸nsted and Lewis Acid Sites for the Production of Î³-Valerolactone from Furfural (Angew. Chem. 31/2013). Angewandte Chemie, 2013, 125, 8044-8044.	2.0	0