

Takashi Toyao

List of Publications by Year in descending order

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papers

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citations

87843

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146
times ranked

6452
citing authors

#	ARTICLE	IF	CITATIONS
1	Visible-Light-Promoted Photocatalytic Hydrogen Production by Using an Amino-Functionalized Ti(IV) Metal-Organic Framework. <i>Journal of Physical Chemistry C</i> , 2012, 116, 20848-20853.	1.5	551
2	Machine Learning for Catalysis Informatics: Recent Applications and Prospects. <i>ACS Catalysis</i> , 2020, 10, 2260-2297.	5.5	309
3	Efficient hydrogen production and photocatalytic reduction of nitrobenzene over a visible-light-responsive metal-organic framework photocatalyst. <i>Catalysis Science and Technology</i> , 2013, 3, 2092.	2.1	198
4	Design of Interfacial Sites between Cu and Amorphous ZrO ₂ Dedicated to CO ₂ -to-Methanol Hydrogenation. <i>ACS Catalysis</i> , 2018, 8, 7809-7819.	5.5	159
5	Development of a Ru complex-incorporated MOF photocatalyst for hydrogen production under visible-light irradiation. <i>Chemical Communications</i> , 2014, 50, 6779.	2.2	145
6	MOF-on-MOF: Oriented Growth of Multiple Layered Thin Films of Metal-Organic Frameworks. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6886-6890.	7.2	145
7	Toward Effective Utilization of Methane: Machine Learning Prediction of Adsorption Energies on Metal Alloys. <i>Journal of Physical Chemistry C</i> , 2018, 122, 8315-8326.	1.5	140
8	Recent advances in visible-light-responsive photocatalysts for hydrogen production and solar energy conversion from semiconducting TiO ₂ to MOF/PCP photocatalysts. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 13243.	1.3	139
9	Acceptorless dehydrogenative coupling reactions with alcohols over heterogeneous catalysts. <i>Green Chemistry</i> , 2018, 20, 2933-2952.	4.6	114
10	A Cu-Pd single-atom alloy catalyst for highly efficient NO reduction. <i>Chemical Science</i> , 2019, 10, 8292-8298.	3.7	105
11	Density Functional Theory Calculations of Oxygen Vacancy Formation and Subsequent Molecular Adsorption on Oxide Surfaces. <i>Journal of Physical Chemistry C</i> , 2018, 122, 29435-29444.	1.5	103
12	Visible-light-driven photocatalytic water oxidation catalysed by iron-based metal-organic frameworks. <i>Chemical Communications</i> , 2016, 52, 5190-5193.	2.2	96
13	Visible-light, photoredox catalyzed, oxidative hydroxylation of arylboronic acids using a metal-organic framework containing tetrakis(carboxyphenyl)porphyrin groups. <i>Chemical Communications</i> , 2015, 51, 16103-16106.	2.2	93
14	Bulk tungsten-substituted vanadium oxide for low-temperature NO _x removal in the presence of water. <i>Nature Communications</i> , 2021, 12, 557.	5.8	92
15	Immobilization of Cu Complex into Zr-Based MOF with Bipyridine Units for Heterogeneous Selective Oxidation. <i>Journal of Physical Chemistry C</i> , 2015, 119, 8131-8137.	1.5	89
16	Isolated Indium Hydrides in CHA Zeolites: Speciation and Catalysis for Nonoxidative Dehydrogenation of Ethane. <i>Journal of the American Chemical Society</i> , 2020, 142, 4820-4832.	6.6	86
17	C-Methylation of Alcohols, Ketones, and Indoles with Methanol Using Heterogeneous Platinum Catalysts. <i>ACS Catalysis</i> , 2018, 8, 3091-3103.	5.5	85
18	Bulk Vanadium Oxide versus Conventional V ₂ O ₅ /TiO ₂ : NH ₃ -SCR Catalysts Working at a Low Temperature Below 150 °C. <i>ACS Catalysis</i> , 2019, 9, 9327-9331.	5.5	82

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19	Low-Temperature Hydrogenation of CO ₂ to Methanol over Heterogeneous TiO ₂ -Supported Re Catalysts. ACS Catalysis, 2019, 9, 3685-3693.	5.5	82
20	Rhenium-Loaded TiO ₂ : A Highly Versatile and Chemoselective Catalyst for the Hydrogenation of Carboxylic Acid Derivatives and the N-Methylation of Amines Using H ₂ and CO ₂ . Chemistry - A European Journal, 2017, 23, 14848-14859.	1.7	76
21	Single-Atom High-Valent Fe(IV) for Promoted Photocatalytic Nitrogen Hydrogenation on Porous TiO ₂ -SiO ₂ . ACS Catalysis, 2021, 11, 4362-4371.	5.5	70
22	Application of an amino-functionalised metal-organic framework: an approach to a one-pot acid-base reaction. RSC Advances, 2013, 3, 21582.	1.7	67
23	Formation and Reactions of NH ₄ NO ₃ during Transient and Steady-State NH ₃ -SCR of NO _x over H-AFX Zeolites: Spectroscopic and Theoretical Studies. ACS Catalysis, 2020, 10, 2334-2344.	5.5	67
24	Heterogeneous Pt and MoO ₃ Co-Loaded TiO ₂ Catalysts for Low-Temperature CO ₂ Hydrogenation To Form CH ₃ OH. ACS Catalysis, 2019, 9, 8187-8196.	5.5	66
25	In Situ Spectroscopic Studies on the Redox Cycle of NH ₃ -SCR over Cu-CHA Zeolites. ChemCatChem, 2020, 12, 3050-3059.	1.8	64
26	Development of a novel one-pot reaction system utilizing a bifunctional Zr-based metal-organic framework. Catalysis Science and Technology, 2014, 4, 625.	2.1	63
27	Acceptorless Dehydrogenative Synthesis of Pyrimidines from Alcohols and Amidines Catalyzed by Supported Platinum Nanoparticles. ACS Catalysis, 2018, 8, 11330-11341.	5.5	58
28	Positioning of the HKUST-1 metal-organic framework (Cu ₃ (BTC) ₂) through conversion from insoluble Cu-based precursors. Inorganic Chemistry Frontiers, 2015, 2, 434-441.	3.0	54
29	Statistical Analysis and Discovery of Heterogeneous Catalysts Based on Machine Learning from Diverse Published Data. ChemCatChem, 2019, 11, 4537-4547.	1.8	54
30	Design of Zeolitic Imidazolate Framework Derived Nitrogen-Doped Nanoporous Carbons Containing Metal Species for Carbon Dioxide Fixation Reactions. ChemSusChem, 2015, 8, 3905-3912.	3.6	53
31	Hydrodeoxygenation of Fatty Acids, Triglycerides, and Ketones to Liquid Alkanes by a Pt-MoO ₃ /TiO ₂ Catalyst. ChemCatChem, 2017, 9, 2822-2827.	1.8	53
32	Lewis Acid Catalysis of Nb ₂ O ₅ for Reactions of Carboxylic Acid Derivatives in the Presence of Basic Inhibitors. ChemCatChem, 2019, 11, 383-396.	1.8	53
33	N-Methylation of amines and nitroarenes with methanol using heterogeneous platinum catalysts. Journal of Catalysis, 2019, 371, 47-56.	3.1	48
34	Promotional Effect of La in the Three-Way Catalysis of La-Loaded Al ₂ O ₃ -Supported Pd Catalysts (Pd/La/Al ₂ O ₃). ACS Catalysis, 2020, 10, 1010-1023.	5.5	46
35	TiO ₂ -Supported Re as a General and Chemoselective Heterogeneous Catalyst for Hydrogenation of Carboxylic Acids to Alcohols. Chemistry - A European Journal, 2017, 23, 1001-1006.	1.7	45
36	Lewis Acid-Promoted Heterogeneous Platinum Catalysts for Hydrogenation of Amides to Amines. ChemistrySelect, 2016, 1, 736-740.	0.7	42

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37	Design of Pd-based pseudo-binary alloy catalysts for highly active and selective NO reduction. <i>Chemical Science</i> , 2019, 10, 4148-4162.	3.7	41
38	Formation of Highly Active Superoxide Sites on CuO Nanoclusters Encapsulated in SAPO-34 for Catalytic Selective Ammonia Oxidation. <i>ACS Catalysis</i> , 2019, 9, 10398-10408.	5.5	39
39	Acceptorless dehydrogenation of N-heterocycles by supported Pt catalysts. <i>Catalysis Today</i> , 2017, 281, 507-511.	2.2	38
40	Effect of pore sizes on catalytic activities of arenetricarbonyl metal complexes constructed within Zr-based MOFs. <i>Dalton Transactions</i> , 2013, 42, 9444.	1.6	37
41	MOF-on-MOF: Oriented Growth of Multiple Layered Thin Films of Metal-Organic Frameworks. <i>Angewandte Chemie</i> , 2019, 131, 6960-6964.	1.6	37
42	Synthesis of 2,5-disubstituted pyrroles via dehydrogenative condensation of secondary alcohols and 1,2-amino alcohols by supported platinum catalysts. <i>Organic Chemistry Frontiers</i> , 2016, 3, 846-851.	2.3	35
43	Transformation of Bulk Pd to Pd Cations in Small-Pore CHA Zeolites Facilitated by NO. <i>Jacs Au</i> , 2021, 1, 201-211.	3.6	34
44	Analysis of Updated Literature Data up to 2019 on the Oxidative Coupling of Methane Using an Extrapolative Machine Learning Method to Identify Novel Catalysts. <i>ChemCatChem</i> , 2021, 13, 3636-3655.	1.8	33
45	Analogous Mechanistic Features of NH ₃ -SCR over Vanadium Oxide and Copper Zeolite Catalysts. <i>ACS Catalysis</i> , 2021, 11, 11180-11192.	5.5	33
46	Construction of Pt complex within Zr-based MOF and its application for hydrogen production under visible-light irradiation. <i>Research on Chemical Intermediates</i> , 2016, 42, 7679-7688.	1.3	32
47	Oxidation Catalysis over Solid-State Keggin-Type Phosphomolybdic Acid with Oxygen Defects. <i>Journal of the American Chemical Society</i> , 2022, 144, 7693-7708.	6.6	30
48	Fe ₃ O ₄ @HKUST-1 and Pd/Fe ₃ O ₄ @HKUST-1 as magnetically recyclable catalysts prepared via conversion from a Cu-based ceramic. <i>CrystEngComm</i> , 2017, 19, 4201-4210.	1.3	28
49	Direct Synthesis of Lactams from Keto Acids, Nitriles, and H ₂ by Heterogeneous Pt Catalysts. <i>ChemCatChem</i> , 2018, 10, 789-795.	1.8	28
50	Origin of Nb ₂ O ₅ Lewis Acid Catalysis for Activation of Carboxylic Acids in the Presence of a Hard Base. <i>ChemPhysChem</i> , 2018, 19, 2848-2857.	1.0	28
51	Zeolitic imidazolate frameworks as heterogeneous catalysts for a one-pot P-C bond formation reaction via Knoevenagel condensation and phospho-Michael addition. <i>RSC Advances</i> , 2015, 5, 24687-24690.	1.7	27
52	An in situ porous cuprous oxide/nitrogen-rich graphitic carbon nanocomposite derived from a metal-organic framework for visible light driven hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18037-18042.	5.2	27
53	Oxidant-free Dehydrogenation of Glycerol to Lactic Acid by Heterogeneous Platinum Catalysts. <i>ChemCatChem</i> , 2017, 9, 2816-2821.	1.8	26
54	High-silica H ⁺ zeolites for catalytic hydration of hydrophobic epoxides and alkynes in water. <i>Journal of Catalysis</i> , 2018, 368, 145-154.	3.1	26

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55	Mechanistic study of the selective hydrogenation of carboxylic acid derivatives over supported rhenium catalysts. <i>Catalysis Science and Technology</i> , 2019, 9, 5413-5424.	2.1	25
56	Selective Transformations of Triglycerides into Fatty Amines, Amides, and Nitriles by using Heterogeneous Catalysis. <i>ChemSusChem</i> , 2019, 12, 3115-3125.	3.6	25
57	Mechanistic insights into the oxidation of copper(<i>scp</i>) species during NH ₃ -SCR over Cu-CHA zeolites: a DFT study. <i>Catalysis Science and Technology</i> , 2020, 10, 3586-3593.	2.1	25
58	Catalytic Methylation of <i>m</i> -Xylene, Toluene, and Benzene Using CO ₂ and H ₂ over TiO ₂ -Supported Re and Zeolite Catalysts: Machine-Learning-Assisted Catalyst Optimization. <i>ACS Catalysis</i> , 2021, 11, 5829-5838.	5.5	25
59	Roles of the basic metals La, Ba, and Sr as additives in Al ₂ O ₃ -supported Pd-based three-way catalysts. <i>Journal of Catalysis</i> , 2021, 400, 387-396.	3.1	25
60	Supported rhenium nanoparticle catalysts for acceptorless dehydrogenation of alcohols: structure-activity relationship and mechanistic studies. <i>Catalysis Science and Technology</i> , 2016, 6, 5864-5870.	2.1	24
61	NH ₃ -efficient ammoxidation of toluene by hydrothermally synthesized layered tungsten-vanadium complex metal oxides. <i>Journal of Catalysis</i> , 2016, 344, 346-353.	3.1	24
62	Catalytic Methylation of Aromatic Hydrocarbons using CO ₂ /H ₂ over Re/TiO ₂ and H ₂ MOF Catalysts. <i>ChemCatChem</i> , 2020, 12, 2215-2220.	1.8	24
63	Linear Correlations between Adsorption Energies and HOMO Levels for the Adsorption of Small Molecules on TiO ₂ Surfaces. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20988-20997.	1.5	23
64	In Situ/Operando IR and Theoretical Studies on the Mechanism of NH ₃ -SCR of NO/NO ₂ over H ₂ CHA Zeolites. <i>Journal of Physical Chemistry C</i> , 2021, 125, 13889-13899.	1.5	23
65	Heterogeneous catalysts for the cyclization of dicarboxylic acids to cyclic anhydrides as monomers for bioplastic production. <i>Green Chemistry</i> , 2017, 19, 3238-3242.	4.6	22
66	Changes in Surface Oxygen Vacancy Formation Energy at Metal/Oxide Perimeter Sites: A Systematic Study on Metal Nanoparticles Deposited on an In ₂ O ₃ (111) Support. <i>Journal of Physical Chemistry C</i> , 2020, 124, 27621-27630.	1.5	22
67	Frontier Molecular Orbital Based Analysis of Solid-Adsorbate Interactions over Group 13 Metal Oxide Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 15355-15365.	1.5	22
68	Continuous CO ₂ Capture and Selective Hydrogenation to CO over Na-Promoted Pt Nanoparticles on Al ₂ O ₃ . <i>ACS Catalysis</i> , 2022, 12, 2639-2650.	5.5	22
69	Esterification of Tertiary Amides by Alcohols Through C-N Bond Cleavage over CeO ₂ . <i>ChemCatChem</i> , 2019, 11, 449-456.	1.8	21
70	Mechanism of NH ₃ -Selective Catalytic Reduction (SCR) of NO/NO ₂ (Fast SCR) over Cu-CHA Zeolites Studied by In Situ/Operando Infrared Spectroscopy and Density Functional Theory. <i>Journal of Physical Chemistry C</i> , 2021, 125, 21975-21987.	1.5	21
71	Acetalization of glycerol with ketones and aldehydes catalyzed by high silica H ₂ zeolite. <i>Molecular Catalysis</i> , 2019, 479, 110608.	1.0	20
72	Reverse water-gas shift reaction over Pt/Mo _x /TiO ₂ : reverse Mars-van Krevelen mechanism via redox of supported MoO _x . <i>Catalysis Science and Technology</i> , 2021, 11, 4172-4180.	2.1	20

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73	Heterogeneous Platinum Catalysts for Direct Synthesis of Trimethylamine by <i>N</i> -Methylation of Ammonia and Its Surrogates with CO ₂ /H ₂ . Chemistry Letters, 2017, 46, 68-70.	0.7	19
74	Surface Oxygen Vacancy Formation Energy Calculations in 34 Orientations of γ -Ga ₂ O ₃ and γ -Al ₂ O ₃ . Journal of Physical Chemistry C, 2020, 124, 10509-10522.	1.5	19
75	Catalytic hydrolysis of hydrophobic esters on/in water by high-silica large pore zeolites. Journal of Catalysis, 2016, 344, 741-748.	3.1	18
76	The Catalytic Reduction of Carboxylic Acid Derivatives and CO ₂ by Metal Nanoparticles on Lewis Acidic Supports. Chemical Record, 2018, 18, 1374-1393.	2.9	18
77	Experimental and theoretical study of multinuclear indium-oxo clusters in CHA zeolite for CH ₄ activation at room temperature. Physical Chemistry Chemical Physics, 2019, 21, 13415-13427.	1.3	18
78	Hydrolysis of amides to carboxylic acids catalyzed by Nb ₂ O ₅ . Catalysis Science and Technology, 2021, 11, 1949-1960.	2.1	18
79	Effect of Oxygen Vacancies on Adsorption of Small Molecules on Anatase and Rutile TiO ₂ Surfaces: A Frontier Orbital Approach. Journal of Physical Chemistry C, 2021, 125, 3827-3844.	1.5	18
80	Catalytic NO _x CO Reactions over La-Al ₂ O ₃ Supported Pd: Promotion Effect of La. Chemistry Letters, 2018, 47, 1036-1039.	0.7	17
81	Direct Phenolysis Reactions of Unactivated Amides into Phenolic Esters Promoted by a Heterogeneous CeO ₂ Catalyst. Chemistry - A European Journal, 2019, 25, 10594-10605.	1.7	17
82	High-silica H γ zeolite catalyzed methanolysis of triglycerides to form fatty acid methyl esters (FAMEs). Fuel Processing Technology, 2020, 197, 106204.	3.7	17
83	Super Mg ²⁺ Conductivity around 10 ³ S cm ⁻¹ Observed in a Porous Metal-Organic Framework. Journal of the American Chemical Society, 2022, 144, 8669-8675.	6.6	17
84	Redox-Driven Reversible Structural Evolution of Isolated Silver Atoms Anchored to Specific Sites on γ -Al ₂ O ₃ . ACS Catalysis, 2022, 12, 544-559.	5.5	16
85	Local structure and NO adsorption/desorption property of Pd ²⁺ cations at different paired Al sites in CHA zeolite. Physical Chemistry Chemical Physics, 2021, 23, 22273-22282.	1.3	15
86	Alkyl decorated metal-organic frameworks for selective trapping of ethane from ethylene above ambient pressures. Dalton Transactions, 2021, 50, 10423-10435.	1.6	15
87	Lean NO _x Capture and Reduction by NH ₃ via NO _x Intermediates over H-CHA at Room Temperature. Journal of Physical Chemistry C, 2021, 125, 1913-1922.	1.5	15
88	In-Exchanged CHA Zeolites for Selective Dehydrogenation of Ethane: Characterization and Effect of Zeolite Framework Type. Catalysts, 2020, 10, 807.	1.6	14
89	Catalytic Decomposition of N ₂ O in the Presence of O ₂ through Redox of Rh Oxide in a RhO _x /ZrO ₂ Catalyst. ACS Catalysis, 2022, 12, 6325-6333.	5.5	14
90	Combined theoretical and experimental study on alcoholysis of amides on CeO ₂ surface: A catalytic interplay between Lewis acid and base sites. Catalysis Today, 2018, 303, 256-262.	2.2	13

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91	A CHA zeolite supported Ga-oxo cluster for partial oxidation of CH ₄ at room temperature. <i>Catalysis Today</i> , 2020, 352, 118-126.	2.2	13
92	In situ/operando spectroscopic studies on NH ₃ -SCR reactions catalyzed by a phosphorus-modified Cu-CHA zeolite. <i>Catalysis Today</i> , 2021, 376, 73-80.	2.2	12
93	Factors determining surface oxygen vacancy formation energy in ternary spinel structure oxides with zinc. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 23768-23777.	1.3	12
94	Coordinated Water as New Binding Sites for the Separation of Light Hydrocarbons in Metal-Organic Frameworks with Open Metal Sites. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9448-9456.	4.0	11
95	Reverse Water-Gas Shift Reaction via Redox of Re Nanoclusters Supported on TiO ₂ . <i>Chemistry Letters</i> , 2021, 50, 158-161.	0.7	11
96	Water oxidation reaction promoted by MIL-101(Fe) photoanode under visible light irradiation. <i>Research on Chemical Intermediates</i> , 2018, 44, 4755-4764.	1.3	10
97	Kinetic and spectroscopic insights into the behaviour of Cu active site for NH ₃ -SCR over zeolites with several topologies. <i>Catalysis Science and Technology</i> , 2021, 11, 2718-2733.	2.1	10
98	Mechanism of Standard NH ₃ -SCR over Cu-CHA via NO ⁺ and HONO Intermediates. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11594-11601.	1.5	10
99	FT-IR study of the reaction mechanisms for photocatalytic reduction of NO with CO promoted by various single-site photocatalysts. <i>Journal of Catalysis</i> , 2013, 299, 232-239.	3.1	9
100	Selective C ₃ -alkenylation of oxindole with aldehydes using heterogeneous CeO ₂ catalyst. <i>Chinese Journal of Catalysis</i> , 2020, 41, 970-976.	6.9	9
101	Surface activation by electron scavenger metal nanorod adsorption on TiH ₂ , TiC, TiN, and Ti ₂ O ₃ . <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 16577-16593.	1.3	9
102	High-loading Ga-exchanged MFI zeolites as selective and coke-resistant catalysts for nonoxidative ethane dehydrogenation. <i>Catalysis Science and Technology</i> , 2022, 12, 986-995.	2.1	9
103	Thermally Induced Transformation of Sb-Containing Trigonal Mo ₃ VO ₈ to Orthorhombic Mo ₃ VO ₈ and Its Effect on the Catalytic Ammoxidation of Propane. <i>Chemistry of Materials</i> , 2020, 32, 1506-1516.	3.2	8
104	Lean NO _x Reduction by In-Situ-Formed NH ₃ under Periodic Lean/Rich Conditions over Rhodium-Loaded Al-Rich Beta Zeolites. <i>ACS Catalysis</i> , 2021, 11, 12293-12300.	5.5	8
105	Enhancement of the hydrodesulfurization and C-S bond cleavage activities of rhodium phosphide catalysts by platinum addition. <i>Journal of Catalysis</i> , 2022, 408, 294-302.	3.1	8
106	Synthesis of Zeolitic Ti, Zr-Substituted Vanadotungstates and Investigation of Their Catalytic Activities for Low Temperature NH ₃ -SCR. <i>ACS Catalysis</i> , 2021, 11, 14016-14025.	5.5	7
107	Machine Learning Analysis of Literature Data on the Water Gas Shift Reaction toward Extrapolative Prediction of Novel Catalysts. <i>Chemistry Letters</i> , 2022, 51, 269-273.	0.7	7
108	In Situ Spectroscopic Studies of the Redox Catalytic Cycle in NH ₃ -SCR over Chromium-Exchanged Zeolites. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11082-11090.	1.5	7

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109	Development of dye-sensitized solar cells based on visible-light-responsive TiO ₂ thin films with a unique columnar structure. <i>Research on Chemical Intermediates</i> , 2013, 39, 415-424.	1.3	6
110	Statistical Analysis and Discovery of Heterogeneous Catalysts Based on Machine Learning from Diverse Published Data. <i>ChemCatChem</i> , 2019, 11, 4445-4445.	1.8	6
111	Catalytic Activity of Rhodium Phosphide for Selective Hydrodeoxygenation of Phenol. <i>Chemistry Letters</i> , 2019, 48, 471-474.	0.7	6
112	High dimensionally structured W-V oxides as highly effective catalysts for selective oxidation of toluene. <i>Catalysis Today</i> , 2021, 363, 60-66.	2.2	6
113	Greener and facile synthesis of Cu/ZnO catalysts for CO ₂ hydrogenation to methanol by urea hydrolysis of acetates. <i>RSC Advances</i> , 2021, 11, 14323-14333.	1.7	6
114	Selective catalytic reduction of NO over Cu-AFX zeolites: mechanistic insights from <i>in situ</i> operando spectroscopic and DFT studies. <i>Catalysis Science and Technology</i> , 2021, 11, 4459-4470.	2.1	6
115	Effect of oxygen storage materials on the performance of Pt-based three-way catalysts. <i>Catalysis Science and Technology</i> , 2022, 12, 3534-3548.	2.1	6
116	Experimental and Theoretical Investigation of Metal-Support Interactions in Metal-Oxide-Supported Rhenium Materials. <i>Journal of Physical Chemistry C</i> , 2022, 126, 4472-4482.	1.5	5
117	Layered silicate stabilises diiron to mimic UV-shielding TiO ₂ nanoparticle. <i>Materials Today Nano</i> , 2022, 19, 100227.	2.3	5
118	Ga speciation and ethane dehydrogenation catalysis of Ga-CHA and MOR: Comparative investigation with Ga-MFI. <i>Catalysis Today</i> , 2023, 411-412, 113824.	2.2	5
119	Enhanced photoelectrochemical properties of visible light-responsive TiO ₂ photoanode for separate-type Pt-free photofuel cells by Rh ³⁺ addition. <i>Research on Chemical Intermediates</i> , 2013, 39, 1603-1611.	1.3	4
120	Design of Fe-MOF-bpdc deposited with cobalt oxide (CoO _x) nanoparticles for enhanced visible-light-promoted water oxidation reaction. <i>Research on Chemical Intermediates</i> , 2020, 46, 2003-2015.	1.3	4
121	Role of Ba in an Al ₂ O ₃ -Supported Pd-based Catalyst under Practical Three-Way Catalysis Conditions. <i>ChemCatChem</i> , 2022, 14, .	1.8	4
122	Metal-Organic Framework (MOF) and Porous Coordination Polymer (PCP)-Based Photocatalysts. <i>Nanostructure Science and Technology</i> , 2016, , 479-489.	0.1	3
123	TiO ₂ -Supported Re as a General and Chemoselective Heterogeneous Catalyst for Hydrogenation of Carboxylic Acids to Alcohols. <i>Chemistry - A European Journal</i> , 2017, 23, 980-980.	1.7	3
124	Propane Dehydrogenation Catalysis of Titanium Hydrides: Positive Effect of Hydrogen Co-feeding. <i>Chemistry Letters</i> , 2022, 51, 88-90.	0.7	2
125	Understanding and controlling the formation of surface anion vacancies for catalytic applications. <i>Catalysis Science and Technology</i> , 2022, 12, 2398-2410.	2.1	2
126	Trends in Surface Oxygen Formation Energy in Perovskite Oxides. <i>ACS Omega</i> , 2022, 7, 18427-18433.	1.6	2

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127	Application to Electroluminescence Devices with Dimethylformamide-Stabilized Niobium Oxide Nanoparticles. ACS Applied Nano Materials, 2022, 5, 7658-7663.	2.4	2
128	<i>N,N</i> -Dimethylformamide-stabilized ruthenium nanoparticle catalyst for β -alkylated dimer alcohol formation via Guerbet reaction of primary alcohols. RSC Advances, 2022, 12, 16599-16603.	1.7	2
129	Innentitelbild: MOF-on-MOF: Oriented Growth of Multiple Layered Thin Films of Metal-Organic Frameworks (Angew. Chem. 21/2019). Angewandte Chemie, 2019, 131, 6856-6856.	1.6	1
130	The design and development of MOF photocatalysts and their applications for water-splitting reaction. , 2020, , 323-338.		1
131	Catalytic Methylation of Benzene over Pt/MoO _x /TiO ₂ and Zeolite Catalyst Using CO ₂ and H ₂ . Chemistry Letters, 2022, 51, 149-152.	0.7	1
132	Mechanistic study on three-way catalysis over Pd/La/Al ₂ O ₃ with high La loading. Catalysis Today, 2022, , .	2.2	1
133	Origin of Nb ₂ O ₅ Lewis Acid Catalysis for Activation of Carboxylic Acids in the Presence of a Hard Base. ChemPhysChem, 2018, 19, 2809-2809.	1.0	0
134	Direct Phenolysis Reactions of Unactivated Amides into Phenolic Esters Promoted by a Heterogeneous CeO ₂ Catalyst. Chemistry - A European Journal, 2019, 25, 10515-10515.	1.7	0
135	Esterification of Tertiary Amides by Alcohols Through C-N Bond Cleavage over CeO ₂ . ChemCatChem, 2019, 11, 15-15.	1.8	0
136	Machine Learning Predictions of Adsorption Energies of CH ₄ -Related Species. , 2020, , 135-149.		0