Zen Maeno

List of Publications by Year
in descending order

75 papers	2,286 citations	331538 21 h-index	233338 45 g-index
80 all docs	80 docs citations	80 times ranked	2905 citing authors

#	Article	IF	Citations
1	Machine Learning for Catalysis Informatics: Recent Applications and Prospects. ACS Catalysis, 2020, 10, 2260-2297.	5.5	309
2	One-step Synthesis of Core-Gold/Shell-Ceria Nanomaterial and Its Catalysis for Highly Selective Semihydrogenation of Alkynes. Journal of the American Chemical Society, 2015, 137, 13452-13455.	6.6	185
3	Direct Transformation of Furfural to 1,2-Pentanediol Using a Hydrotalcite-Supported Platinum Nanoparticle Catalyst. ACS Sustainable Chemistry and Engineering, 2014, 2, 2243-2247.	3.2	131
4	Density Functional Theory Calculations of Oxygen Vacancy Formation and Subsequent Molecular Adsorption on Oxide Surfaces. Journal of Physical Chemistry C, 2018, 122, 29435-29444.	1.5	103
5	Isolated Indium Hydrides in CHA Zeolites: Speciation and Catalysis for Nonoxidative Dehydrogenation of Ethane. Journal of the American Chemical Society, 2020, 142, 4820-4832.	6.6	86
6	Mild Hydrogenation of Amides to Amines over a Platinumâ€Vanadium Bimetallic Catalyst. Angewandte Chemie - International Edition, 2017, 56, 9381-9385.	7.2	73
7	One-Pot Transformation of Levulinic Acid to 2-Methyltetrahydrofuran Catalyzed by Ptâ€“Mo/H-Î² in Water. ACS Sustainable Chemistry and Engineering, 2016, 4, 682-685.	3.2	71
8	Formation and Reactions of NH₄NO₃ during Transient and Steady-State NH₃-SCR of NO_{<i>x</i>} over H-AFX Zeolites: Spectroscopic and Theoretical Studies. ACS Catalysis, 2020, 10, 2334-2344.	5.5	67
9	Heterogeneous Pt and MoO_{<i>x</i>} Co-Loaded TiO₂ Catalysts for Low-Temperature CO₂ Hydrogenation To Form CH₃OH. ACS Catalysis, 2019, 9, 8187-8196.	5.5	66
10	<i>In Situ</i> Spectroscopic Studies on the Redox Cycle of NH₃â^’SCR over Cuâ^’CHA Zeolites. ChemCatChem, 2020, 12, 3050-3059.	1.8	64
11	Statistical Analysis and Discovery of Heterogeneous Catalysts Based on Machine Learning from Diverse Published Data. ChemCatChem, 2019, 11, 4537-4547.	1.8	54
12	A Titanium Dioxide Supported Gold Nanoparticle Catalyst for the Selective Nâ€Formylation of Functionalized Amines with Carbon Dioxide and Hydrogen. ChemCatChem, 2017, 9, 3632-3636.	1.8	53
13	Promotional Effect of La in the Three-Way Catalysis of La-Loaded Al₂O₃-Supported Pd Catalysts (Pd/La/Al₂O₃). ACS Catalysis, 2020, 10, 1010-1023.	5.5	46
14	Transformation of Bulk Pd to Pd Cations in Small-Pore CHA Zeolites Facilitated by NO. Jacs Au, 2021, 1, 201-211.	3.6	34
15	Analysis of Updated Literature Data up to 2019 on the Oxidative Coupling of Methane Using an Extrapolative Machineâ€Learning Method to Identify Novel Catalysts. ChemCatChem, 2021, 13, 3636-3655.	1.8	33
16	Analogous Mechanistic Features of NH₃-SCR over Vanadium Oxide and Copper Zeolite Catalysts. ACS Catalysis, 2021, 11, 11180-11192.	5.5	33
17	High-silica HÎ² zeolites for catalytic hydration of hydrophobic epoxides and alkynes in water. Journal of Catalysis, 2018, 368, 145-154.	3.1	26
18	Mechanistic study of the selective hydrogenation of carboxylic acid derivatives over supported rhenium catalysts. Catalysis Science and Technology, 2019, 9, 5413-5424.	2.1	25

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19	Selective Transformations of Triglycerides into Fatty Amines, Amides, and Nitriles by using Heterogeneous Catalysis. ChemSusChem, 2019, 12, 3115-3125.	3.6	25
20	Mechanistic insights into the oxidation of copper(<scp>i</scp>) species during NH₃-SCR over Cu-CHA zeolites: a DFT study. Catalysis Science and Technology, 2020, 10, 3586-3593.	2.1	25
21	Catalytic Methylation of <i>m</i>-Xylene, Toluene, and Benzene Using CO₂ and H₂ over TiO₂-Supported Re and Zeolite Catalysts: Machine-Learning-Assisted Catalyst Optimization. ACS Catalysis, 2021, 11, 5829-5838.	5.5	25
22	Roles of the basic metals La, Ba, and Sr as additives in Al2O3-supported Pd-based three-way catalysts. Journal of Catalysis, 2021, 400, 387-396.	3.1	25
23	Catalytic Methylation of Aromatic Hydrocarbons using CO₂/H₂ over Re/TiO₂ and Hâ€MOR Catalysts. ChemCatChem, 2020, 12, 2215-2220.	1.8	24
24	Linear Correlations between Adsorption Energies and HOMO Levels for the Adsorption of Small Molecules on TiO₂ Surfaces. Journal of Physical Chemistry C, 2019, 123, 20988-20997.	1.5	23
25	In Situ/Operando IR and Theoretical Studies on the Mechanism of NH₃â€“SCR of NO/NO₂ over Hâ€“CHA Zeolites. Journal of Physical Chemistry C, 2021, 125, 13889-13899.	1.5	23
26	Frontier Molecular Orbital Based Analysis of Solidâ€“Adsorbate Interactions over Group 13 Metal Oxide Surfaces. Journal of Physical Chemistry C, 2020, 124, 15355-15365.	1.5	22
27	Continuous CO₂ Capture and Selective Hydrogenation to CO over Na-Promoted Pt Nanoparticles on Al₂O₃. ACS Catalysis, 2022, 12, 2639-2650.	5.5	22
28	O2-enhanced Catalytic Activity of Gold Nanoparticles in Selective Oxidation of Hydrosilanes to Silanols. Chemistry Letters, 2015, 44, 1062-1064.	0.7	21
29	Esterification of Tertiary Amides by Alcohols Through Câˆ’N Bond Cleavage over CeO₂. ChemCatChem, 2019, 11, 449-456.	1.8	21
30	Mechanism of NH₃â€“Selective Catalytic Reduction (SCR) of NO/NO₂ (Fast SCR) over Cu-CHA Zeolites Studied by <i>In Situ/Operando</i> Infrared Spectroscopy and Density Functional Theory. Journal of Physical Chemistry C, 2021, 125, 21975-21987.	1.5	21
31	Green, Multiâ€Gram Oneâ€Step Synthesis of Coreâ€“Shell Nanocomposites in Water and Their Catalytic Application to Chemoselective Hydrogenations. Chemistry - A European Journal, 2016, 22, 17962-17966.	1.7	20
32	Mild Hydrogenation of Amides to Amines over a Platinumâ€Vanadium Bimetallic Catalyst. Angewandte Chemie, 2017, 129, 9509-9513.	1.6	20
33	Reverse water-gas shift reaction over Pt/MoO_x/TiO₂: reverse Marsâ€“van Krevelen mechanism <i>via</i> redox of supported MoO_x. Catalysis Science and Technology, 2021, 11, 4172-4180.	2.1	20
34	Experimental and theoretical study of multinuclear indiumâ€“oxo clusters in CHA zeolite for CH₄ activation at room temperature. Physical Chemistry Chemical Physics, 2019, 21, 13415-13427.	1.3	18
35	Hydrolysis of amides to carboxylic acids catalyzed by Nb₂O₅. Catalysis Science and Technology, 2021, 11, 1949-1960.	2.1	18
36	Selective synthesis of Rh5 carbonyl clusters within a polyamine dendrimer for chemoselective reduction of nitro aromatics. Chemical Communications, 2014, 50, 6526.	2.2	17

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37	Direct Phenolysis Reactions of Unactivated Amides into Phenolic Esters Promoted by a Heterogeneous CeO₂ Catalyst. Chemistry - A European Journal, 2019, 25, 10594-10605.	1.7	17
38	Redox-Driven Reversible Structural Evolution of Isolated Silver Atoms Anchored to Specific Sites on Î³-Al₂O₃. ACS Catalysis, 2022, 12, 544-559.	5.5	16
39	New Routes for Refinery of Biogenic Platform Chemicals Catalyzed by Cerium Oxide-supported Ruthenium Nanoparticles in Water. Scientific Reports, 2017, 7, 14007.	1.6	15
40	Local structure and NO adsorption/desorption property of Pd²⁺ cations at different paired Al sites in CHA zeolite. Physical Chemistry Chemical Physics, 2021, 23, 22273-22282.	1.3	15
41	Lean NO_{<i>x</i>} Capture and Reduction by NH₃ <i>via</i> NO⁺ Intermediates over H-CHA at Room Temperature. Journal of Physical Chemistry C, 2021, 125, 1913-1922.	1.5	15
42	On-demand Hydrogen Production from Organosilanes at Ambient Temperature Using Heterogeneous Gold Catalysts. Scientific Reports, 2016, 6, 37682.	1.6	14
43	Air-stable and reusable cobalt ion-doped titanium oxide catalyst for alkene hydrosilylation. Green Chemistry, 2019, 21, 4566-4570.	4.6	14
44	In-Exchanged CHA Zeolites for Selective Dehydrogenation of Ethane: Characterization and Effect of Zeolite Framework Type. Catalysts, 2020, 10, 807.	1.6	14
45	Catalytic Decomposition of N₂O in the Presence of O₂ through Redox of Rh Oxide in a RhO_{<i>x</i>}/ZrO₂ Catalyst. ACS Catalysis, 2022, 12, 6325-6333.	5.5	14
46	A CHA zeolite supported Ga-oxo cluster for partial oxidation of CH4 at room temperature. Catalysis Today, 2020, 352, 118-126.	2.2	13
47	Mechanistic Insights on Pd/Cu-Catalyzed Dehydrogenative Coupling of Dimethyl Phthalate. ACS Catalysis, 2018, 8, 5827-5841.	5.5	12
48	In situ/operando spectroscopic studies on NH3â€“SCR reactions catalyzed by a phosphorus-modified Cu-CHA zeolite. Catalysis Today, 2021, 376, 73-80.	2.2	12
49	Reverse Water-Gas Shift Reaction via Redox of Re Nanoclusters Supported on TiO2. Chemistry Letters, 2021, 50, 158-161.	0.7	11
50	Mechanism of Standard NH₃â€“SCR over Cu-CHA via NO⁺ and HONO Intermediates. Journal of Physical Chemistry C, 2022, 126, 11594-11601.	1.5	10
51	Surface activation by electron scavenger metal nanorod adsorption on TiH₂, TiC, TiN, and Ti₂O₃. Physical Chemistry Chemical Physics, 2021, 23, 16577-16593.	1.3	9
52	High-loading Ga-exchanged MFI zeolites as selective and coke-resistant catalysts for nonoxidative ethane dehydrogenation. Catalysis Science and Technology, 2022, 12, 986-995.	2.1	9
53	Regioselective oxidative coupling of 2,6-dimethylphenol to tetramethyldiphenoquinone using polyamine dendrimer-encapsulated Cu catalysts. RSC Advances, 2013, 3, 9662.	1.7	8
54	Lean NO<i>x</i> Reduction by In-Situ-Formed NH₃ under Periodic Lean/Rich Conditions over Rhodium-Loaded Al-Rich Beta Zeolites. ACS Catalysis, 2021, 11, 12293-12300.	5.5	8

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55	Selective Câ€“C Coupling Reaction of Dimethylphenol to Tetramethyldiphenoquinone Using Molecular Oxygen Catalyzed by Cu Complexes Immobilized in Nanospaces of Structurally-Ordered Materials. Molecules, 2015, 20, 3089-3106.	1.7	7
56	Effective management of polyethers through depolymerization to symmetric and unsymmetric glycol diesters using a proton-exchanged montmorillonite catalyst. Green Chemistry, 2017, 19, 2612-2619.	4.6	7
57	Machine Learning Analysis of Literature Data on the Water Gas Shift Reaction toward Extrapolative Prediction of Novel Catalysts. Chemistry Letters, 2022, 51, 269-273.	0.7	7
58	<i>In Situ</i> Spectroscopic Studies of the Redox Catalytic Cycle in NH₃â€“SCR over Chromium-Exchanged Zeolites. Journal of Physical Chemistry C, 2022, 126, 11082-11090.	1.5	7
59	Novel Catalysis in the Internal Nanocavity of Polyamine Dendrimer for Intramolecular Michael Reaction. Chemistry Letters, 2012, 41, 801-803.	0.7	6
60	Selective catalytic reduction of NO over Cu-AFX zeolites: mechanistic insights from <i>in situ</i>/<i>operando</i> spectroscopic and DFT studies. Catalysis Science and Technology, 2021, 11, 4459-4470.	2.1	6
61	Effect of oxygen storage materials on the performance of Pt-based three-way catalysts. Catalysis Science and Technology, 2022, 12, 3534-3548.	2.1	6
62	Experimental and Theoretical Investigation of Metalâ€“Support Interactions in Metal-Oxide-Supported Rhenium Materials. Journal of Physical Chemistry C, 2022, 126, 4472-4482.	1.5	5
63	Ga speciation and ethane dehydrogenation catalysis of Ga-CHA and MOR: Comparative investigation with Ga-MFI. Catalysis Today, 2023, 411-412, 113824.	2.2	5
64	Synthesis of tetraline derivatives through depolymerization of polyethers with aromatic compounds using a heterogeneous titanium-exchanged montmorillonite catalyst. RSC Advances, 2016, 6, 89231-89233.	1.7	4
65	A dual-functional heterogeneous ruthenium catalyst for the green one-pot synthesis of biphenols. Catalysis Science and Technology, 2017, 7, 3205-3209.	2.1	4
66	Oxidative cross-coupling reaction of catechols with active methylene compounds in an aqueous medium using an AlPO₄-supported Ru catalyst. Catalysis Science and Technology, 2018, 8, 5401-5405.	2.1	4
67	Efficient Synthesis of Benzofurans via Crossâ€Coupling of Catechols with Hydroxycoumarins Using O₂ as an Oxidant Catalyzed by AlPO₄â€Supported Rh Nanoparticle. ChemistrySelect, 2019, 4, 11394-11397.	0.7	4
68	Depolymerization of Polyethers to Chloroesters Using Heterogeneous Proton-exchanged Montmorillonite Catalyst. ChemistrySelect, 2016, 1, 201-204.	0.7	3
69	Synthesis of glycol diesters through the depolymerization of polyethylene glycols with carboxylic acids using a proton-exchanged montmorillonite catalyst. Tetrahedron Letters, 2018, 59, 832-835.	0.7	2
70	Propane Dehydrogenation Catalysis of Titanium Hydrides: Positive Effect of Hydrogen Co-feeding. Chemistry Letters, 2022, 51, 88-90.	0.7	2
71	Application to Electroluminescence Devices with Dimethylformamide-Stabilized Niobium Oxide Nanoparticles. ACS Applied Nano Materials, 2022, 5, 7658-7663.	2.4	2
72	Catalytic Methylation of Benzene over Pt/MoOx/TiO2 and Zeolite Catalyst Using CO2 and H2. Chemistry Letters, 2022, 51, 149-152.	0.7	1

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73	Mechanistic study on three-way catalysis over Pd/La/Al2O3 with high La loading. Catalysis Today, 2022, , .	2.2	1
74	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
75	Esterification of Tertiary Amides by Alcohols Through Câ^'N Bond Cleavage over CeO 2. ChemCatChem, 2019, 11, 15-15.	1.8	0