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	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
2	Propane Dehydrogenation Catalysis of Titanium Hydrides: Positive Effect of Hydrogen Co-feeding. Chemistry Letters, 2022, 51, 88-90.	0.7	2
3	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
4	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
5	Catalytic Methylation of Benzene over Pt/MoOx/TiO2 and Zeolite Catalyst Using CO2 and H2. Chemistry Letters, 2022, 51, 149-152.	0.7	1
6	Continuous CO₂ Capture and Selective Hydrogenation to CO over Na-Promoted Pt Nanoparticles on Al₂O₃. ACS Catalysis, 2022, 12, 2639-2650.	5.5	22
7	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
8	Mechanistic study on three-way catalysis over Pd/La/Al2O3 with high La loading. Catalysis Today, 2022, , .	2.2	1
9	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
10	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
11	Catalytic Decomposition of N₂O in the Presence of O₂ through Redox of Rh Oxide in a RhO_x/ZrO₂ Catalyst. ACS Catalysis, 2022, 12, 6325-6333.	5.5	14
12	Application to Electroluminescence Devices with Dimethylformamide-Stabilized Niobium Oxide Nanoparticles. ACS Applied Nano Materials, 2022, 5, 7658-7663.	2.4	2
13	In Situ 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
14	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
15	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
16	Hydrolysis of amides to carboxylic acids catalyzed by Nb₂O₅. Catalysis Science and Technology, 2021, 11, 1949-1960.	2.1	18
17	Reverse Water-Gas Shift Reaction via Redox of Re Nanoclusters Supported on TiO2. Chemistry Letters, 2021, 50, 158-161.	0.7	11
18	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

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19	Reverse water-gas shift reaction over Pt/MoO_x/TiO₂: reverse Marsâ€“van Krevelen mechanism via redox of supported MoO_x. Catalysis Science and Technology, 2021, 11, 4172-4180.	2.1	20
20	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
21	Transformation of Bulk Pd to Pd Cations in Small-Pore CHA Zeolites Facilitated by NO. Jacs Au, 2021, 1, 201-211.	3.6	34
22	Catalytic Methylation of m-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
23	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
24	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
25	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
26	Analogous Mechanistic Features of NH₃-SCR over Vanadium Oxide and Copper Zeolite Catalysts. ACS Catalysis, 2021, 11, 11180-11192.	5.5	33
27	Mechanism of NH₃â€“Selective Catalytic Reduction (SCR) of NO/NO₂ (Fast SCR) over Cu-CHA Zeolites Studied by In Situ/Operando Infrared Spectroscopy and Density Functional Theory. Journal of Physical Chemistry C, 2021, 125, 21975-21987.	1.5	21
28	Lean NOx 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
29	Lean NO_x Capture and Reduction by NH₃ via NO⁺ Intermediates over H-CHA at Room Temperature. Journal of Physical Chemistry C, 2021, 125, 1913-1922.	1.5	15
30	Selective catalytic reduction of NO over Cu-AFX zeolites: mechanistic insights from in situ/operando spectroscopic and DFT studies. Catalysis Science and Technology, 2021, 11, 4459-4470.	2.1	6
31	Formation and Reactions of NH₄NO₃ during Transient and Steady-State NH₃-SCR of NO_x over H-AFX Zeolites: Spectroscopic and Theoretical Studies. ACS Catalysis, 2020, 10, 2334-2344.	5.5	67
32	Machine Learning for Catalysis Informatics: Recent Applications and Prospects. ACS Catalysis, 2020, 10, 2260-2297.	5.5	309
33	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
34	A CHA zeolite supported Ga-oxo cluster for partial oxidation of CH4 at room temperature. Catalysis Today, 2020, 352, 118-126.	2.2	13
35	In-Exchanged CHA Zeolites for Selective Dehydrogenation of Ethane: Characterization and Effect of Zeolite Framework Type. Catalysts, 2020, 10, 807.	1.6	14
36	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

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37	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
38	In Situ Spectroscopic Studies on the Redox Cycle of NH₃â˜'SCR over Cuâ˜'CHA Zeolites. ChemCatChem, 2020, 12, 3050-3059.	1.8	64
39	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
40	Catalytic Methylation of Aromatic Hydrocarbons using CO₂/H₂ over Re/TiO₂ and Hâ€MOR Catalysts. ChemCatChem, 2020, 12, 2215-2220.	1.8	24
41	Esterification of Tertiary Amides by Alcohols Through Câ˜'N Bond Cleavage over CeO₂. ChemCatChem, 2019, 11, 449-456.	1.8	21
42	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
43	Statistical Analysis and Discovery of Heterogeneous Catalysts Based on Machine Learning from Diverse Published Data. ChemCatChem, 2019, 11, 4537-4547.	1.8	54
44	Heterogeneous Pt and MoO_x Co-Loaded TiO₂ Catalysts for Low-Temperature CO₂ Hydrogenation To Form CH₃OH. ACS Catalysis, 2019, 9, 8187-8196.	5.5	66
45	Air-stable and reusable cobalt ion-doped titanium oxide catalyst for alkene hydrosilylation. Green Chemistry, 2019, 21, 4566-4570.	4.6	14
46	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
47	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
48	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
49	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
50	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
51	Selective Transformations of Triglycerides into Fatty Amines, Amides, and Nitriles by using Heterogeneous Catalysis. ChemSusChem, 2019, 12, 3115-3125.	3.6	25
52	Esterification of Tertiary Amides by Alcohols Through Câ˜'N Bond Cleavage over CeO 2. ChemCatChem, 2019, 11, 15-15.	1.8	0
53	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
54	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

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55	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
56	High-silica HÎ² zeolites for catalytic hydration of hydrophobic epoxides and alkynes in water. Journal of Catalysis, 2018, 368, 145-154.	3.1	26
57	Mechanistic Insights on Pd/Cu-Catalyzed Dehydrogenative Coupling of Dimethyl Phthalate. ACS Catalysis, 2018, 8, 5827-5841.	5.5	12
58	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
59	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
60	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
61	Mild Hydrogenation of Amides to Amines over a Platinumâ€Vanadium Bimetallic Catalyst. Angewandte Chemie, 2017, 129, 9509-9513.	1.6	20
62	Mild Hydrogenation of Amides to Amines over a Platinumâ€Vanadium Bimetallic Catalyst. Angewandte Chemie - International Edition, 2017, 56, 9381-9385.	7.2	73
63	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
64	On-demand Hydrogen Production from Organosilanes at Ambient Temperature Using Heterogeneous Gold Catalysts. Scientific Reports, 2016, 6, 37682.	1.6	14
65	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
66	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
67	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
68	Depolymerization of Polyethers to Chloroesters Using Heterogeneous Proton-exchanged Montmorillonite Catalyst. ChemistrySelect, 2016, 1, 201-204.	0.7	3
69	O2-enhanced Catalytic Activity of Gold Nanoparticles in Selective Oxidation of Hydrosilanes to Silanols. Chemistry Letters, 2015, 44, 1062-1064.	0.7	21
70	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
71	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
72	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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73	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
74	Regioselective oxidative coupling of 2,6-dimethylphenol to tetramethyldiphenoquinone using polyamine dendrimer-encapsulated Cu catalysts. RSC Advances, 2013, 3, 9662.	1.7	8
75	Novel Catalysis in the Internal Nanocavity of Polyamine Dendrimer for Intramolecular Michael Reaction. Chemistry Letters, 2012, 41, 801-803.	0.7	6