Chao-he Yang

List of Publications by Year
in descending order

113	2,562	201674	289244
papers	citations	27 h-index	40 g-index

114	114	114	1925
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Simultaneously Enhanced Stability and Selectivity for Propene Epoxidation with H₂ and O₂ on Au Catalysts Supported on Nano-Crystalline Mesoporous TS-1. ACS Catalysis, 2017, 7, 2668-2675.	11.2	120
2	Catalytic Transfer Hydrogenation of Biomassâ€Derived Substrates to Valueâ€Added Chemicals on Dualâ€Function Catalysts: Opportunities and Challenges. ChemSusChem, 2019, 12, 71-92.	6.8	109
3	Enhanced Catalytic Performance for Propene Epoxidation with H₂ and O₂ over Bimetallic Auâ€“Ag/Uncalcined Titanium Silicate-1 Catalysts. ACS Catalysis, 2018, 8, 7799-7808.	11.2	94
4	Maximizing Propylene Yield by Two-Stage Riser Catalytic Cracking of Heavy Oil. Industrial & Engineering Chemistry Research, 2007, 46, 4914-4920.	3.7	77
5	Tailoring Facets of Î±-Mn₂O₃ Microcrystalline Catalysts for Enhanced Selective Oxidation of Glycerol to Glycolic Acid. ACS Catalysis, 2021, 11, 6371-6383.	11.2	64
6	Reversing Titanium Oligomer Formation towards Highâ€Efficiency and Green Synthesis of Titaniumâ€Containing Molecular Sieves. Angewandte Chemie - International Edition, 2021, 60, 3443-3448.	13.8	58
7	Synergistic Pt/MgO/SBA-15 nanocatalysts for glycerol oxidation in base-free medium: Catalyst design and mechanistic study. Journal of Catalysis, 2019, 370, 434-446.	6.2	56
8	Synergistic effects of bimetallic PtRu/MCM-41 nanocatalysts for glycerol oxidation in base-free medium: Structure and electronic coupling dependent activity. Applied Catalysis B: Environmental, 2019, 259, 118070.	20.2	53
9	PO₄^{3â^’} Coordinated Robust Singleâ€Atom Platinum Catalyst for Selective Polyol Oxidation**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	51
10	Niâ€“Co oxide catalysts with lattice distortions for enhanced oxidation of glycerol to glyceric acid. Journal of Catalysis, 2020, 381, 248-260.	6.2	48
11	Enhanced stability for propene epoxidation with H2 and O2 over wormhole-like hierarchical TS-1 supported Au nanocatalyst. Chemical Engineering Journal, 2019, 377, 119954.	12.7	46
12	Manipulating Gold Spatial Location on Titanium Silicalite-1 To Enhance the Catalytic Performance for Direct Propene Epoxidation with H₂ and O₂. ACS Catalysis, 2018, 8, 10649-10657.	11.2	44
13	Engineering Pt-Mn2O3 interface to boost selective oxidation of ethylene glycol to glycolic acid. Applied Catalysis B: Environmental, 2021, 284, 119803.	20.2	40
14	Morphological insights into the catalytic aquathermolysis of crude oil with an easily prepared high-efficiency Fe3O4-containing catalyst. Fuel, 2019, 245, 420-428.	6.4	37
15	Bimetallic AuPt/TiO₂Catalysts for Direct Oxidation of Glucose and Gluconic Acid to Tartaric Acid in the Presence of Molecular O₂. ACS Catalysis, 2020, 10, 10932-10945.	11.2	37
16	Liquid-Phase Epoxidation of Light Olefins over W and Nb Nanocatalysts. ACS Sustainable Chemistry and Engineering, 2018, 6, 4423-4452.	6.7	36
17	Insights into the synergy between recyclable magnetic Fe3O4 and zeolite for catalytic aquathermolysis of heavy crude oil. Applied Surface Science, 2018, 456, 140-146.	6.1	36
18	Study on the polarity, solubility, and stacking characteristics of asphaltenes. Fuel, 2014, 128, 366-372.	6.4	35

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19	Au/TSâ€1 catalyst for propene epoxidation with H₂/O₂: A novel strategy to enhance stability by tuning charging sequence. AIChE Journal, 2016, 62, 3963-3972.	3.6	35
20	Nature of active sites and deactivation mechanism for n-butane isomerization over alumina-promoted sulfated zirconia. Journal of Catalysis, 2016, 338, 124-134.	6.2	35
21	Cost-efficient core-shell TS-1/silicalite-1 supported Au catalysts: Towards enhanced stability for propene epoxidation with H2 and O2. Chemical Engineering Journal, 2019, 377, 119927.	12.7	35
22	Produce petrochemicals directly from crude oil catalytic cracking, a techno-economic analysis and life cycle society-environment assessment. Journal of Cleaner Production, 2021, 308, 127283.	9.3	33
23	Catalytic conversion of CO2 and shale gas-derived substrates into saturated carbonates and derivatives: Catalyst design, performances and reaction mechanism. Journal of CO2 Utilization, 2019, 34, 115-148.	6.8	32
24	Effects of Temperature and Catalyst to Oil Weight Ratio on the Catalytic Conversion of Heavy Oil to Propylene Using ZSM-5 and USY Catalysts. Journal of Natural Gas Chemistry, 2007, 16, 92-99.	1.8	31
25	Selective oxidation of glycerol to carboxylic acids on Pt(111) in base-free medium: A periodic density functional theory investigation. Applied Surface Science, 2019, 497, 143661.	6.1	31
26	Engineering three-layer coreâ€“shell S-1/TS-1@dendritic-SiO2 supported Au catalysts towards improved performance for propene epoxidation with H2 and O2. Green Energy and Environment, 2020, 5, 473-483.	8.7	30
27	Propene epoxidation with H2 and O2 on Au/TS-1 catalyst: Cost-effective synthesis of small-sized mesoporous TS-1 and its unique performance. Catalysis Today, 2020, 347, 102-109.	4.4	29
28	Equivalent Reactor Network Model for Simulating the Air Gasification of Polyethylene in a Conical Spouted Bed Gasifier. Energy & Fuels, 2014, 28, 6830-6840.	5.1	28
29	Enhancing the dynamic electron transfer of Au species on wormhole-like TS-1 for boosting propene epoxidation performance with H2 and O2. Green Energy and Environment, 2020, 5, 433-443.	8.7	28
30	Enhanced performance of bimetallic PtCo/MCM-41 catalysts for glycerol oxidation in base-free medium. Catalysis Science and Technology, 2019, 9, 4909-4919.	4.1	27
31	Residue Catalytic Cracking Process for Maximum Ethylene and Propylene Production. Industrial & Engineering Chemistry Research, 2013, 52, 14366-14375.	3.7	25
32	Toward Selective Dehydrogenation of Glycerol to Lactic Acid over Bimetallic Ptâ€“Co/CeO_x Catalysts. Industrial & Engineering Chemistry Research, 2019, 58, 14548-14558.	3.7	25
33	Regulating light olefins or aromatics production in ex-situ catalytic pyrolysis of biomass by engineering the structure of tin modified ZSM-5 catalyst. Bioresource Technology, 2021, 330, 124975.	9.6	25
34	Glycolic Acid Production from Ethylene Glycol via Sustainable Biomass Energy: Integrated Conceptual Process Design and Comparative Techno-economicâ€“Societyâ€“Environment Analysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 10948-10962.	6.7	25
35	Mechanistic Insights into the Pore Confinement Effect on Bimolecular and Monomolecular Cracking Mechanisms of N-Octane over HY and HZSM-5 Zeolites: A DFT Study. Journal of Physical Chemistry C, 2018, 122, 12222-12230.	3.1	24
36	Producing glyceric acid from glycerol via integrating vacuum dividing wall columns: conceptual process design and techno-economic-environmental analysis. Green Chemistry, 2021, 23, 3664-3676.	9.0	24

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37	Multifunctional Two-Stage Riser Catalytic Cracking of Heavy Oil. Industrial & Engineering Chemistry Research, 2013, 52, 658-668.	3.7	23
38	Effect of modification methods on the surface properties and n-butane isomerization performance of La/Ni-promoted SO42â˜'/ZrO2-Al2O3. Applied Surface Science, 2016, 378, 489-495.	6.1	23
39	Efficient Conversion of Light Cycle Oil into High-Octane-Number Gasoline and Light Olefins over a Mesoporous ZSM-5 Catalyst. Energy & Fuels, 2017, 31, 6968-6976.	5.1	23
40	Catalytic cracking of acetic acid and its ketene intermediate over HZSM-5 catalyst: A density functional theory study. Molecular Catalysis, 2017, 437, 11-17.	2.0	23
41	Effect of pore confinement on the adsorption of mono-branched alkanes of naphtha in ZSM-5 and Y zeolites. Applied Surface Science, 2017, 423, 131-138.	6.1	23
42	Comparative study of n-butane isomerization over SO42â˜'/Al2O3-ZrO2 and HZSM-5 zeolites at low reaction temperatures. Applied Catalysis A: General, 2018, 550, 98-104.	4.3	23
43	Insights into the reaction pathway of thiophene hydrodesulfurization over corner site of MoS2 catalyst: A density functional theory study. Molecular Catalysis, 2019, 463, 45-53.	2.0	23
44	Revealing the Effect of Nickel Particle Size on Carbon Formation Type in the Methane Decomposition Reaction. Catalysts, 2020, 10, 890.	3.5	23
45	One-step leap in achieving oil-to-chemicals by using a two-stage riser reactor: Molecular-level process model and multi-objective optimization strategy. Chemical Engineering Journal, 2022, 444, 136684.	12.7	23
46	Synergistic Process for Coker Gas Oil Catalytic Cracking and Gasoline Reformation. Energy & Fuels, 2013, 27, 654-665.	5.1	22
47	Towards high activity of hydrogen production from ammonia borane over efficient non-noble Ni5P4 catalyst. International Journal of Hydrogen Energy, 2018, 43, 17112-17120.	7.1	22
48	Mesoporogen-Free Strategy to Construct Hierarchical TS-1 in a Highly Concentrated System for Gas-Phase Propene Epoxidation with H₂ and O₂. ACS Applied Materials & Interfaces, 2021, 13, 26134-26142.	8.0	22
49	NiMgAlMo catalyst derived from a guest-host MoO42- mediated layered double hydroxide: High performance for the methane decomposition reaction. Applied Catalysis A: General, 2020, 597, 117551.	4.3	21
50	PO₄^{3â˜'} Coordinated Robust Singleâ€Atom Platinum Catalyst for Selective Polyol Oxidation**. Angewandte Chemie, 2022, 134, .	2.0	21
51	Hydrogenation and TMP Coupling Process: Novel Process Design, Techno-Economic Analysis, Environmental Assessment and Thermo-Economic Optimization. Industrial & Engineering Chemistry Research, 2019, 58, 10482-10494.	3.7	20
52	Regulating catalyst morphology to boost the stability of Niâ€“Mo/Al2O3 catalyst for ebullated-bed residue hydrotreating. Green Energy and Environment, 2021, 6, 283-290.	8.7	20
53	Catalytic Transfer Hydrogenolysis of Glycerol over Heterogeneous Catalysts: A Short Review on Mechanistic Studies. Chemical Record, 2021, 21, 1792-1810.	5.8	20
54	Promoting catalytic transfer hydrodecarbonylation of methyl stearate over bimetallic CoNi/HAP catalysts with strong electronic coupling effect. Applied Catalysis B: Environmental, 2022, 306, 121138.	20.2	20

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55	Consequence of heterogeneity of active sites for reactivity mechanism of n -butane isomerization over SO 4 2â^' /ZrO 2 -Al 2 O 3 catalyst. Applied Catalysis A: General, 2017, 542, 311-316.	4.3	19
56	Adsorption and Separation Mechanism of Thiophene/Benzene in MFI Zeolite: A GCMC Study. Journal of Physical Chemistry C, 2017, 121, 25818-25826.	3.1	19
57	Rationally constructed Ti sites of TS-1 for epoxidation reactions. Science Bulletin, 2021, 66, 1945-1949.	9.0	19
58	Crude oil hierarchical catalytic cracking for maximizing chemicals production: Pilot-scale test, process optimization strategy, techno-economic-society-environment assessment. Energy Conversion and Management, 2022, 253, 115149.	9.2	19
59	Isomerization of n-Butane over SO₄^{2â€“}/Al₂O₃â€“ZrO₂ in a Circulated Fluidized Bed Reactor: Prospects for Commercial Application. Industrial & Engineering Chemistry Research, 2017, 56, 8456-8464.	3.7	18
60	Recent Advances on Purification of Lactic Acid. Chemical Record, 2020, 20, 1236-1256.	5.8	18
61	Insight into the basic strength-dependent catalytic performance in aqueous phase oxidation of glycerol to glyceric acid. Chemical Engineering Science, 2021, 230, 116191.	3.8	18
62	Equivalent Reactor Network Model for the Modeling of Fluid Catalytic Cracking Riser Reactor. Industrial & Engineering Chemistry Research, 2015, 54, 8732-8742.	3.7	17
63	Interfacial catalysts for sustainable chemistry: advances on atom and energy efficient glycerol conversion to acrylic acid. Green Chemistry, 2021, 23, 51-76.	9.0	17
64	Octadecanol Production from Methyl Stearate by Catalytic Transfer Hydrogenation over Synergistic Co/HAP Catalysts. Energy & Fuels, 2021, 35, 9970-9982.	5.1	17
65	In Situ Upgrading of Light Fluid Catalytic Cracking Naphtha for Minimum Loss. Industrial & Engineering Chemistry Research, 2013, 52, 6366-6376.	3.7	14
66	Adsorption and separation of n/iso-pentane on zeolites: A GCMC study. Journal of Molecular Graphics and Modelling, 2018, 80, 59-66.	2.4	14
67	Effect of dispersion on the adsorption of polycyclic aromatic hydrocarbons over the Î³-Al2O3 (110) surface. Applied Surface Science, 2019, 486, 137-143.	6.1	14
68	Hydrogenolysis of Glycerol to Propylene Glycol: Energy, Tech-Economic, and Environmental Studies. Frontiers in Chemistry, 2021, 9, 778579.	3.6	14
69	Numerical study of counterâ€current gasâ€“solid flow in FCC disengager and stripper. Canadian Journal of Chemical Engineering, 2014, 92, 176-188.	1.7	13
70	Effect of acid strength on the formation mechanism of tertiary butyl carbocation in initial C4 alkylation reaction over H-BEA zeolite: A density functional theory study. Catalysis Today, 2020, 355, 171-179.	4.4	13
71	Non-noble metal catalysts for transfer hydrogenation of levulinic acid: The role of surface morphology and acid-base pairs. Materials Today Energy, 2020, 18, 100501.	4.7	13
72	Catalytic Transfer Hydrogenolysis of Bio-Polyols to Renewable Chemicals over Bimetallic PtPd/C Catalysts: Size-Dependent Activity and Selectivity. ACS Sustainable Chemistry and Engineering, 2020, 8, 5305-5316.	6.7	13

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73	Effect of Aluminum Addition and Surface Moisture Content on the Catalytic Activity of Sulfated Zirconia in n-Butane Isomerization. Industrial & Engineering Chemistry Research, 2019, 58, 14638-14645.	3.7	12
74	Diffusion properties of aromatic hydrocarbons in mesoporous alumina: A molecular dynamics study. Chemical Engineering Science, 2019, 204, 110-117.	3.8	12
75	Enhancing the Conversion of Polycyclic Aromatic Hydrocarbons from Naphthenic Heavy Oil: Novel Process Design, Comparative Techno-Economic Analysis, and Life Cycle Assessment. Industrial & Engineering Chemistry Research, 2020, 59, 20086-20101.	3.7	12
76	Opportunities for utilizing waste cooking oil in crude to petrochemical process: Novel process design, optimal strategy, techno-economic analysis and life cycle society-environment assessment. Energy, 2021, 237, 121530.	8.8	12
77	Technoeconomic Analysis and Life Cycle Assessment of Five VGO Processing Pathways in China. Energy & Fuels, 2019, 33, 12106-12120.	5.1	11
78	Conceptual Coupled Process for Catalytic Cracking of High-Acid Crude Oil. Industrial & Engineering Chemistry Research, 2019, 58, 4794-4801.	3.7	11
79	Insight into the Effect of Lewis Acid of W/Al-MCM-41 Catalyst on Metathesis of 1-Butene and Ethylene. Applied Catalysis A: General, 2020, 604, 117772.	4.3	11
80	Enhancing light olefins and aromatics production from naphthenic-based vacuum gas oil: Process integration, techno-economic analysis and life cycle environmental assessment. Computers and Chemical Engineering, 2021, 146, 107207.	3.8	11
81	Dipole Moment Variation of a Petroleum Residue during Catalytic and Thermal Upgrading. Energy & Fuels, 2009, 23, 2086-2089.	5.1	10
82	Study on the dipole moment of asphaltene molecules through dielectric measuring. Fuel, 2015, 140, 609-615.	6.4	10
83	Deoxygenation mechanism of methyl butyrate on HZSM-5: A density functional theory study. Molecular Catalysis, 2019, 479, 110588.	2.0	10
84	Understanding the Effect of Acid Strength on the Alkane-Alkoxide Hydride Transfer Reaction over Solid Acid Catalysts: Insights from Density Functional Theory. Industrial & Engineering Chemistry Research, 2019, 58, 9314-9321.	3.7	10
85	Nanostructured Metal Catalysts for Selective Hydrogenation and Oxidation of Cellulosic Biomass to Chemicals. Chemical Record, 2019, 19, 1952-1994.	5.8	10
86	Synergistic Process for High Nitrogen Content Feedstocks Catalytic Cracking: A Case Study of Controlling the Reactions of Nitrogen Compounds in Situ. Industrial & Engineering Chemistry Research, 2014, 53, 5718-5727.	3.7	9
87	Novel Propylene Production Route: Utilizing Hydrotreated Shale Oil as Feedstock via Two-Stage Riser Catalytic Cracking. Energy & Fuels, 2015, 29, 7190-7195.	5.1	9
88	Structurally Strained Bimetallic PtFe Nanocatalysts Show Tunable Catalytic Selectivity in Aqueous Oxidation of Bio-Polyols to Dicarboxylic Acids. Industrial & Engineering Chemistry Research, 2018, 57, 12078-12086.	3.7	9
89	Influence of Lewis Acid on the Activity and Selectivity of Pt/MCM-41 (Al) Catalysts for Oxidation of C₃ Polyols in Base-Free Medium. Industrial & Engineering Chemistry Research, 2019, 58, 20259-20269.	3.7	9
90	Fe³⁺-Mediated Pt/Y Zeolite Catalysts Display Enhanced Metalâ€“Bronsted Acid Interaction and Synergistic Cascade Hydrogenolysis Reactions. Industrial & Engineering Chemistry Research, 2020, 59, 17387-17398.	3.7	9

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91	Synergistic Bimetallic Pdâ€“Pt/TiO₂ Catalysts for Hydrogenolysis of Xylitol with In Situ-Formed H₂. Industrial & Engineering Chemistry Research, 2020, 59, 13879-13891.	3.7	9
92	<scp>Auâ€Promoted</scp> Pt nanoparticles supported on <scp>MgO</scp>/<scp>SBA</scp>â€15 as an efficient catalyst for selective oxidation of glycerol. AICHE Journal, 2021, 67, e17196.	3.6	9
93	Effective Regulation of the Au Spatial Position in a Hierarchically Structured Au/HTS-1 Catalyst: To Boost the Catalytic Performance of Propene Epoxidation with H₂ and O₂. ACS Sustainable Chemistry and Engineering, 2022, 10, 9515-9524.	6.7	9
94	Multifunctional two-stage riser fluid catalytic cracking process. Applied Petrochemical Research, 2014, 4, 395-400.	1.3	8
95	Chemical Synthesis of Adipic Acid from Glucose and Derivatives: Challenges for Nanocatalyst Design. ACS Sustainable Chemistry and Engineering, 2020, 8, 18732-18754.	6.7	8
96	Electronic coupling enhanced PtCo/CeO2 hybrids as highly active catalysts for the key dehydrogenation step in conversion of bio-derived polyols. Chemical Engineering Science, 2021, 229, 116060.	3.8	8
97	Selective propylene epoxidation in liquid phase using highly dispersed Nb catalysts incorporated in mesoporous silicates. Chinese Journal of Chemical Engineering, 2018, 26, 1278-1284.	3.5	7
98	PtRu/Zn₃Ce₁O_x catalysts with Lewis acidâ€“base pairs show synergistic performances for the conversion of glycerol in the absence of externally added H₂. Catalysis Science and Technology, 2020, 10, 4386-4395.	4.1	7
99	Insights into the confinement effect on isobutane alkylation with C4 olefin catalyzed by zeolite catalyst: A combined theoretical and experimental study. Chinese Journal of Chemical Engineering, 2022, 47, 174-184.	3.5	7
100	Strong metal-support interaction of palladium carbide in PtPd/C catalysts for enhanced catalytic transfer hydrogenolysis of glycerol. Biomass and Bioenergy, 2022, 163, 106507.	5.7	6
101	Effect of Si/Al ratio on tetralin adsorption on Y zeolite: a DFT study. Molecular Simulation, 2017, 43, 945-952.	2.0	5
102	Promoting effect of Ni on the structure and electronic properties of NixMo(1â^'x)S2 catalyst and benzene adsorption: A periodic DFT study. Applied Surface Science, 2019, 471, 607-614.	6.1	5
103	Numerical Investigations of the Oxidative Dehydrogenation of Propane in a Spouted Bed Reactor. Energy & Fuels, 2020, 34, 10858-10871.	5.1	5
104	Computation-guided descriptor for efficient zeolite catalysts screening in C4 alkylation process. Chemical Engineering Science, 2021, 241, 116726.	3.8	5
105	Theoretical and experimental investigations into light alkane dehydrogenation over chromium-containing catalyst. Fuel, 2022, 320, 123893.	6.4	5
106	Insight into the selective oxidation mechanism of glycerol to 1,<scp>3â€dihydroxyacetone</scp>over<scp>AuCuâ€“ZnO</scp>interface. AICHE Journal, 2022, 68, .	3.6	5
107	Understanding the Diffusion Properties of Sulfur-Containing Compounds in Mesoporous Alumina: A Molecular Dynamics Study. Industrial & Engineering Chemistry Research, 2022, 61, 3023-3030.	3.7	4
108	Effect of Phosphorus Modification on the Acidity, Nanostructure of the Active Phase, and Catalytic Performance of Residue Hydrodenitrogenation Catalysts. ACS Omega, 2020, 5, 19111-19119.	3.5	3

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109	Investigation on Adsorption and Separation Behavior of Propane/Propene Mixtures in Zeolites. Journal of Nanoscience and Nanotechnology, 2019, 19, 7679-7688.	0.9	3
110	Improving FCC Product Distribution with Two-Stage Riser Technology. Petroleum Science and Technology, 2006, 24, 379-387.	1.5	2
111	A DFT Study for Catalytic Deoxygenation of Methyl Butyrate on a Lewis Acid Site of ZSM-5 Zeolite. Catalysts, 2020, 10, 1233.	3.5	2
112	Reversing Titanium Oligomer Formation towards Highâ€Efficiency and Green Synthesis of Titaniumâ€Containing Molecular Sieves. Angewandte Chemie, 2021, 133, 3485-3490.	2.0	2
113	Recent Advances on Synthesis of CoCO₃ with Controlled Morphologies. Chemical Record, 2022, 22, e202200021.	5.8	2