

Minkee Choi

List of Publications by Year in descending order

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93
papers

10,916
citations

61687

45
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48101

92
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96
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96
docs citations

96
times ranked

11747
citing authors

#	ARTICLE	IF	CITATIONS
1	Stable single-unit-cell nanosheets of zeolite MFI as active and long-lived catalysts. <i>Nature</i> , 2009, 461, 246-249.	13.7	1,925
2	Amphiphilic organosilane-directed synthesis of crystalline zeolite with tunable mesoporosity. <i>Nature Materials</i> , 2006, 5, 718-723.	13.3	1,079
3	Tuning selectivity of electrochemical reactions by atomically dispersed platinum catalyst. <i>Nature Communications</i> , 2016, 7, 10922.	5.8	683
4	Effect of mesoporosity against the deactivation of MFI zeolite catalyst during the methanol-to-hydrocarbon conversion process. <i>Journal of Catalysis</i> , 2010, 269, 219-228.	3.1	560
5	Microporosity and connections between pores in SBA-15 mesostructured silicas as a function of the temperature of synthesis. <i>New Journal of Chemistry</i> , 2003, 27, 73-79.	1.4	497
6	Recent advances in the synthesis of hierarchically nanoporous zeolites. <i>Microporous and Mesoporous Materials</i> , 2013, 166, 3-19.	2.2	420
7	Mercaptosilane-Assisted Synthesis of Metal Clusters within Zeolites and Catalytic Consequences of Encapsulation. <i>Journal of the American Chemical Society</i> , 2010, 132, 9129-9137.	6.6	301
8	Facile synthesis of high quality mesoporous SBA-15 with enhanced control of the porous network connectivity and wall thickness. <i>Chemical Communications</i> , 2003, , 1340-1341.	2.2	297
9	Mesoporous materials with zeolite framework: remarkable effect of the hierarchical structure for retardation of catalyst deactivation. <i>Chemical Communications</i> , 2006, , 4489.	2.2	282
10	Controlled Polymerization in Mesoporous Silica toward the Design of Organic-Inorganic Composite Nanoporous Materials. <i>Journal of the American Chemical Society</i> , 2005, 127, 1924-1932.	6.6	263
11	Hydrogen Peroxide Synthesis via Enhanced Two-Electron Oxygen Reduction Pathway on Carbon-Coated Pt Surface. <i>Journal of Physical Chemistry C</i> , 2014, 118, 30063-30070.	1.5	248
12	Epoxide-functionalization of polyethyleneimine for synthesis of stable carbon dioxide adsorbent in temperature swing adsorption. <i>Nature Communications</i> , 2016, 7, 12640.	5.8	215
13	Maximizing the catalytic function of hydrogen spillover in platinum-encapsulated aluminosilicates with controlled nanostructures. <i>Nature Communications</i> , 2014, 5, 3370.	5.8	181
14	Organosilane surfactant-directed synthesis of mesoporous aluminophosphates constructed with crystalline microporous frameworks. <i>Chemical Communications</i> , 2006, , 4380.	2.2	170
15	Ordered nanoporous polymer-carbon composites. <i>Nature Materials</i> , 2003, 2, 473-476.	13.3	169
16	High Catalytic Activity of Palladium(II)-Exchanged Mesoporous Sodalite and NaA Zeolite for Bulky Aryl Coupling Reactions: Reusability under Aerobic Conditions. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 3673-3676.	7.2	148
17	Oxidation-stable amine-containing adsorbents for carbon dioxide capture. <i>Nature Communications</i> , 2018, 9, 726.	5.8	137
18	Spatial distribution, strength, and dealumination behavior of acid sites in nanocrystalline MFI zeolites and their catalytic consequences. <i>Journal of Catalysis</i> , 2012, 288, 115-123.	3.1	134

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19	2,6-Di- <i>tert</i> -butylpyridine Sorption Approach to Quantify the External Acidity in Hierarchical Zeolites. <i>Journal of Physical Chemistry C</i> , 2014, 118, 12266-12274.	1.5	134
20	Cooperative effects of secondary mesoporosity and acid site location in Pt/SAPO-11 on <i>n</i> -dodecane hydroisomerization selectivity. <i>Journal of Catalysis</i> , 2014, 319, 232-238.	3.1	130
21	Mesoporous carbons with KOH activated framework and their hydrogen adsorption. <i>Journal of Materials Chemistry</i> , 2007, 17, 4204.	6.7	127
22	Physicochemical Stabilization of Pt against Sintering for a Dehydrogenation Catalyst with High Activity, Selectivity, and Durability. <i>ACS Catalysis</i> , 2016, 6, 2819-2826.	5.5	116
23	An ethylenediamine-grafted Y zeolite: a highly regenerable carbon dioxide adsorbent via temperature swing adsorption without urea formation. <i>Energy and Environmental Science</i> , 2016, 9, 1803-1811.	15.6	116
24	Palladium acetate immobilized in a hierarchical MFI zeolite-supported ionic liquid: a highly active and recyclable catalyst for Suzuki reaction in water. <i>Green Chemistry</i> , 2009, 11, 309.	4.6	112
25	Cooperative effects of zeolite mesoporosity and defect sites on the amount and location of coke formation and its consequence in deactivation. <i>Journal of Catalysis</i> , 2017, 347, 222-230.	3.1	103
26	Maximizing Biojet Fuel Production from Triglyceride: Importance of the Hydrocracking Catalyst and Separate Deoxygenation/Hydrocracking Steps. <i>ACS Catalysis</i> , 2017, 7, 6256-6267.	5.5	92
27	Expanded Heterogeneous Suzuki-Miyaura Coupling Reactions of Aryl and Heteroaryl Chlorides under Mild Conditions. <i>Advanced Synthesis and Catalysis</i> , 2009, 351, 2912-2920.	2.1	85
28	Efficient microalgae harvesting by organo-building blocks of nanoclays. <i>Green Chemistry</i> , 2013, 15, 749.	4.6	82
29	Facile synthesis of macroporous Li ₄ SiO ₄ with remarkably enhanced CO ₂ adsorption kinetics. <i>Chemical Engineering Journal</i> , 2015, 280, 132-137.	6.6	81
30	Atomistic Insights into the Stability of Pt Single-Atom Electrocatalysts. <i>Journal of the American Chemical Society</i> , 2020, 142, 15496-15504.	6.6	75
31	Carbon Monoxide as a Promoter of Atomically Dispersed Platinum Catalyst in Electrochemical Hydrogen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2018, 140, 16198-16205.	6.6	74
32	The synthesis of a hierarchically porous BEA zeolite via pseudomorphic crystallization. <i>Chemical Communications</i> , 2009, , 2845.	2.2	73
33	Unveiling coke formation mechanism in MFI zeolites during methanol-to-hydrocarbons conversion. <i>Journal of Catalysis</i> , 2019, 375, 183-192.	3.1	73
34	Cyclic diquaternary ammoniums for nanocrystalline BEA, MTW and MFI zeolites with intercrystalline mesoporosity. <i>Journal of Materials Chemistry</i> , 2009, 19, 6713.	6.7	71
35	Lipid content in microalgae determines the quality of biocrude and Energy Return On Investment of hydrothermal liquefaction. <i>Applied Energy</i> , 2015, 156, 354-361.	5.1	65
36	Synthesis of magnetically separable ordered mesoporous carbons using furfuryl alcohol and cobalt nitrate in a silica template. <i>Journal of Materials Chemistry</i> , 2006, 16, 3409.	6.7	62

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37	Ethanol-based synthesis of hierarchically porous carbon using nanocrystalline beta zeolite template for high-rate electrical double layer capacitor. <i>Carbon</i> , 2013, 60, 175-185.	5.4	57
38	Hydrogen Spillover in Encapsulated Metal Catalysts: New Opportunities for Designing Advanced Hydroprocessing Catalysts. <i>ChemCatChem</i> , 2015, 7, 1048-1057.	1.8	56
39	Macroporous Silica with Thick Framework for Steam-Stable and High-Performance Poly(ethyleneimine)/Silica CO ₂ Adsorbent. <i>ChemSusChem</i> , 2017, 10, 2518-2526.	3.6	53
40	Dynamic metal-polymer interaction for the design of chemoselective and long-lived hydrogenation catalysts. <i>Science Advances</i> , 2020, 6, eabb7369.	4.7	53
41	Quantification of Active Site Density and Turnover Frequency: From Single-Atom Metal to Nanoparticle Electrocatalysts. <i>Jacs Au</i> , 2021, 1, 586-597.	3.6	53
42	Cross-Linked "Poisonous" Polymer: Thermochemically Stable Catalyst Support for Tuning Chemoselectivity. <i>ACS Catalysis</i> , 2016, 6, 2435-2442.	5.5	52
43	Significant Roles of Carbon Pore and Surface Structure in AuPd/C Catalyst for Achieving High Chemoselectivity in Direct Hydrogen Peroxide Synthesis. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 1208-1216.	3.2	50
44	Revisiting hydrogen spillover in Pt/LTA: Effects of physical diluents having different acid site distributions. <i>Journal of Catalysis</i> , 2015, 325, 26-34.	3.1	48
45	Thermal Stability Enhanced Tetraethylenepentamine/Silica Adsorbents for High Performance CO ₂ Capture. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 4632-4639.	1.8	46
46	Structural effects of amine polymers on stability and energy efficiency of adsorbents in post-combustion CO ₂ capture. <i>Chemical Engineering Journal</i> , 2021, 408, 127289.	6.6	46
47	Synergy between Zeolite Framework and Encapsulated Sulfur for Enhanced Ion-Exchange Selectivity to Radioactive Cesium. <i>Chemistry of Materials</i> , 2018, 30, 5777-5785.	3.2	43
48	Hierarchically micro-/mesoporous Pt/KL for alkane aromatization: Synergistic combination of high catalytic activity and suppressed hydrogenolysis. <i>Journal of Catalysis</i> , 2016, 340, 66-75.	3.1	41
49	Rational Design of the Polymeric Amines in Solid Adsorbents for Postcombustion Carbon Dioxide Capture. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 23825-23833.	4.0	41
50	Catalytic dehydration of ethanol over hierarchical ZSM-5 zeolites: studies of their acidity and porosity properties. <i>Catalysis Science and Technology</i> , 2016, 6, 3568-3584.	2.1	40
51	Synergistic integration of catalysis and ion-exchange for highly selective reduction of nitrate into N ₂ . <i>Chemical Engineering Journal</i> , 2016, 289, 423-432.	6.6	39
52	A mechanistic model for hydrogen activation, spillover, and its chemical reaction in a zeolite-encapsulated Pt catalyst. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 7035-7041.	1.3	38
53	Relationship between zeolite structure and capture capability for radioactive cesium and strontium. <i>Journal of Hazardous Materials</i> , 2021, 408, 124419.	6.5	36
54	Large-scale synthesis of high-quality zeolite-templated carbons without depositing external carbon layers. <i>Chemical Engineering Journal</i> , 2015, 280, 597-605.	6.6	34

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55	Unique thermal contraction of zeolite-templated carbons enabling micropore size tailoring and its effects on methane storage. <i>Carbon</i> , 2019, 141, 143-153.	5.4	34
56	Revisiting side-chain alkylation of toluene to styrene: Critical role of microporous structures in catalysts. <i>Journal of Catalysis</i> , 2019, 373, 25-36.	3.1	32
57	Effects of Fatty Acid Compositions on Heavy Oligomer Formation and Catalyst Deactivation during Deoxygenation of Triglycerides. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 17168-17177.	3.2	29
58	Pore control of Al-based MIL-53 isomorphs for the preferential capture of ethane in an ethane/ethylene mixture. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14593-14600.	5.2	29
59	Mesoporous polymer-silica catalysts for selective hydroxylation of phenol. <i>Green Chemistry</i> , 2006, 8, 144.	4.6	28
60	Single-step hydroconversion of triglycerides into biojet fuel using CO-tolerant PtRe catalyst supported on USY. <i>Journal of Catalysis</i> , 2019, 379, 180-190.	3.1	28
61	SO ₂ -Resistant Amine-Containing CO ₂ Adsorbent with a Surface Protection Layer. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 16586-16593.	4.0	28
62	Catalytic Interplay of Ga, Pt, and Ce on the Alumina Surface Enabling High Activity, Selectivity, and Stability in Propane Dehydrogenation. <i>ACS Catalysis</i> , 2021, 11, 10767-10777.	5.5	28
63	Complete degradation of perchlorate using Pd/N-doped activated carbon with adsorption/catalysis bifunctional roles. <i>Carbon</i> , 2013, 65, 315-323.	5.4	27
64	Synergistic Integration of Ion-Exchange and Catalytic Reduction for Complete Decomposition of Perchlorate in Waste Water. <i>Environmental Science & Technology</i> , 2014, 48, 7503-7510.	4.6	27
65	CrAPO-5 catalysts having a hierarchical pore structure for the selective oxidation of tetralin to 1-tetralone. <i>New Journal of Chemistry</i> , 2010, 34, 2971.	1.4	26
66	Controlled decationization of X zeolite: mesopore generation within zeolite crystallites for bulky molecular adsorption and transformation. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12096.	5.2	25
67	Comprehensive Understanding of the Effects of Carbon Nanostructures on Redox Catalytic Properties and Stability in Oxidative Dehydrogenation. <i>ACS Catalysis</i> , 2017, 7, 5257-5267.	5.5	24
68	Selective Dissociation of Dihydrogen over Dioxygen on a Hindered Platinum Surface for the Direct Synthesis of Hydrogen Peroxide. <i>ChemCatChem</i> , 2014, 6, 2836-2842.	1.8	23
69	Effects of Fatty Acid Structures on Ketonization Selectivity and Catalyst Deactivation. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 13035-13044.	3.2	23
70	Controlled Synthesis of Metal-Organic Frameworks in Scalable Open-Porous Contactor for Maximizing Carbon Capture Efficiency. <i>Jacs Au</i> , 2021, 1, 1198-1207.	3.6	23
71	Effects of secondary mesoporosity and zeolite crystallinity on catalyst deactivation of ZSM-5 in propanal conversion. <i>Microporous and Mesoporous Materials</i> , 2017, 245, 16-23.	2.2	21
72	Tailoring a Dynamic Metal-Polymer Interaction to Improve Catalyst Selectivity and Longevity in Hydrogenation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12482-12489.	7.2	19

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73	Hydrothermal deoxygenation of triglycerides over carbon-supported bimetallic PtRe catalysts without an external hydrogen source. <i>Molecular Catalysis</i> , 2019, 474, 110419.	1.0	18
74	Scalable synthesis of zeolite-templated ordered microporous carbons without external carbon deposition for capacitive energy storage. <i>Microporous and Mesoporous Materials</i> , 2020, 307, 110481.	2.2	18
75	Size Tunable Zeolite-Templated Carbon as Microporous Sulfur Host for Lithium-Sulfur Batteries. <i>ChemElectroChem</i> , 2019, 6, 558-565.	1.7	17
76	The facet effect of ceria nanoparticles on platinum dispersion and catalytic activity of methanol partial oxidation. <i>Chemical Communications</i> , 2021, 57, 7382-7385.	2.2	16
77	Sulfur-modified zeolite A as a low-cost strontium remover with improved selectivity for radioactive strontium. <i>Chemosphere</i> , 2022, 299, 134309.	4.2	16
78	Optimum Utilization of Biochemical Components in <i>Chlorella</i> sp. KR1 via Subcritical Hydrothermal Liquefaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 7240-7248.	3.2	15
79	Gradual Disorder of LTA Zeolite for Continuous Tuning of the Molecular Sieving Effect. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6807-6812.	1.5	14
80	Hydrogen spillover in nonreducible oxides: Mechanism and catalytic utilization. <i>Nano Research</i> , 2022, 15, 10357-10365.	5.8	14
81	Epoxy-Functionalized, Poly(ethylenimine)-Confined Silica/Polymer Module Affording Sustainable CO ₂ Capture in Rapid Thermal Swing Adsorption. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 13923-13931.	1.8	11
82	Alumina-coated ordered mesoporous silica as an efficient and stable water adsorbent for adsorption heat pump. <i>Microporous and Mesoporous Materials</i> , 2017, 239, 310-315.	2.2	9
83	Versatile post-synthetic Sn incorporation into hierarchically porous BEA zeolite for glucose isomerization in 1-butanol. <i>Microporous and Mesoporous Materials</i> , 2020, 307, 110524.	2.2	9
84	Coproduction of Value-Added Lube Base Oil and Green Diesel from Natural Triglycerides via a Simple Two-Step Process. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 8946-8954.	1.8	8
85	Breaking the inverse relationship between catalytic activity and selectivity in acetylene partial hydrogenation using dynamic metal-polymer interaction. <i>Journal of Catalysis</i> , 2021, 404, 716-725.	3.1	8
86	Hierarchical BEA Zeolite with Trimodal Micro-/Meso-/Macroporosity as a Selective and Long-Lived Catalyst for Isobutane/2-Butene Alkylation. <i>ACS Catalysis</i> , 2022, 12, 4067-4077.	5.5	8
87	Operation of bio-aviation fuel manufacturing facility via hydroprocessed esters and fatty acids process and optimization of fuel property for turbine engine test. <i>Korean Journal of Chemical Engineering</i> , 2021, 38, 1205-1223.	1.2	7
88	Cation Effects of Phosphate Additives for Enhancing the Oxidative Stability of Amine-Containing CO ₂ Adsorbents. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 6147-6152.	1.8	5
89	Removal of malachite green (MG) from aqueous solutions by adsorption, precipitation, and alkaline fading using talc: kinetic, thermodynamic, and column feasibility studies. <i>Desalination and Water Treatment</i> , 2015, 56, 1918-1928.	1.0	4
90	Synergistic interactions between water and the metal/oxide interface in CO oxidation on Pt/CeO ₂ model catalysts. <i>Catalysis Today</i> , 2022, , .	2.2	3

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91	Synthesis of ordered nanoporous carbons using mesoporous template and their perspectives. , 0, , .		0
92	Structural Characterization of Nanosheet-type MFI Zeolite. Nihon Kessho Gakkaishi, 2011, 53, 135-140.	0.0	0
93	Tailoring a Dynamic Metal-Polymer Interaction to Improve Catalyst Selectivity and Longevity in Hydrogenation. Angewandte Chemie, 2021, 133, 12590-12597.	1.6	0