

# Chang Hyun Ko

## List of Publications by Year in descending order

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53  
papers

2,836  
citations

257101

24  
h-index

174990

52  
g-index

53  
all docs

53  
docs citations

53  
times ranked

3600  
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of the Porous Structure of SBA-15. <i>Chemistry of Materials</i> , 2000, 12, 1961-1968.	3.2	1,280
2	Catalytic Hydrodeoxygenation of Bio-oil Model Compounds over Pt/HY Catalyst. <i>Scientific Reports</i> , 2016, 6, 28765.	1.6	133
3	Hydrocarbon production from decarboxylation of fatty acid without hydrogen. <i>Catalysis Today</i> , 2010, 156, 44-48.	2.2	95
4	Upgrading of biofuel by the catalytic deoxygenation of biomass. <i>Korean Journal of Chemical Engineering</i> , 2012, 29, 1657-1665.	1.2	81
5	The effect of calcination temperature on the performance of Ni/MgO-Al <sub>2</sub> O <sub>3</sub> catalysts for decarboxylation of oleic acid. <i>Catalysis Today</i> , 2011, 164, 457-460.	2.2	79
6	Deoxygenation of microalgal oil into hydrocarbon with precious metal catalysts: Optimization of reaction conditions and supports. <i>Energy</i> , 2012, 47, 25-30.	4.5	65
7	Enhancement of C O bond cleavage to afford aromatics in the hydrodeoxygenation of anisole over ruthenium-supporting mesoporous metal oxides. <i>Applied Catalysis A: General</i> , 2017, 544, 84-93.	2.2	62
8	Enhanced electrochemical performance for EDLC using ordered mesoporous carbons (CMK-3 and Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 90-97.	2.8	62
9	Mild hydrodeoxygenation of phenolic lignin model compounds over a FeReO <sub>x</sub> /ZrO <sub>2</sub> catalyst: zirconia and rhenium oxide as efficient dehydration promoters. <i>Green Chemistry</i> , 2018, 20, 1472-1483.	4.6	59
10	Biohydrogen production from catalytic conversion of food waste via steam and air gasification using eggshell- and homo-type Ni/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Bioresource Technology</i> , 2021, 320, 124313.	4.8	59
11	Decarboxylation of microalgal oil without hydrogen into hydrocarbon for the production of transportation fuel. <i>Catalysis Today</i> , 2012, 185, 313-317.	2.2	57
12	Optimization of unsupported CoMo catalysts for decarboxylation of oleic acid. <i>Catalysis Communications</i> , 2015, 67, 16-20.	1.6	53
13	Insight into the effect of metal and support for mild hydrodeoxygenation of lignin-derived phenolics to BTX aromatics. <i>Chemical Engineering Journal</i> , 2019, 377, 120121.	6.6	51
14	Deoxygenation of oleic acid over Ce(1-x)Zr(x)O <sub>2</sub> catalysts in hydrogen environment. <i>Renewable Energy</i> , 2014, 65, 36-40.	4.3	48
15	Optimization of nano-catalysts for application in compact reformers. <i>Chemical Engineering Journal</i> , 2022, 431, 134299.	6.6	42
16	Ni catalysts for dry methane reforming prepared by A-site exsolution on mesoporous defect spinel magnesium aluminate. <i>Applied Catalysis A: General</i> , 2020, 602, 117694.	2.2	40
17	Facile production of biofuel via solvent-free deoxygenation of oleic acid using a CoMo catalyst. <i>Applied Catalysis B: Environmental</i> , 2018, 239, 644-653.	10.8	38
18	Valorization of hazardous COVID-19 mask waste while minimizing hazardous byproducts using catalytic gasification. <i>Journal of Hazardous Materials</i> , 2022, 423, 127222.	6.5	33

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19	Preparation of egg-shell-type Ni/Ru bimetal alumina pellet catalysts: Steam methane reforming for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 18350-18357.	3.8	32
20	Comparison between unsupported mesoporous Co <sub>3</sub> O <sub>4</sub> and supported Co <sub>3</sub> O <sub>4</sub> on mesoporous silica as catalysts for N <sub>2</sub> O decomposition. <i>Catalysis Communications</i> , 2016, 82, 50-54.	1.6	29
21	Polyimide nonwoven fabric-reinforced, flexible phosphosilicate glass composite membranes for high-temperature/low-humidity proton exchange membrane fuel cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 18550.	6.7	27
22	Rapid evaluation of coke resistance in catalysts for methane reforming using low steam-to-carbon ratio. <i>Catalysis Today</i> , 2018, 309, 140-146.	2.2	27
23	Ordered mesoporous carbon CMK-8 cathodes for high-power and long-cycle life sodium hybrid capacitors. <i>Journal of Alloys and Compounds</i> , 2018, 743, 639-645.	2.8	26
24	A New Type of Efficient CO <sub>2</sub> Adsorbent with Improved Thermal Stability: Self-Assembled Nanohybrids with Optimized Microporosity and Gas Adsorption Functions. <i>Advanced Functional Materials</i> , 2013, 23, 4377-4385.	7.8	25
25	Petroleum like biodiesel production by catalytic decarboxylation of oleic acid over Pd/Ce-ZrO <sub>2</sub> under solvent-free condition. <i>Applied Catalysis A: General</i> , 2018, 563, 163-169.	2.2	24
26	Effect of calcination temperature on the association between free NiO species and catalytic activity of Ni <sup>2+</sup> /Ce <sub>0.6</sub> Zr <sub>0.4</sub> O <sub>2</sub> deoxygenation catalysts for biodiesel production. <i>Renewable Energy</i> , 2019, 131, 144-151.	4.3	24
27	Elevated conversion of CO <sub>2</sub> to versatile formate by a newly discovered formate dehydrogenase from <i>Rhodobacter aestuarii</i> . <i>Bioresource Technology</i> , 2020, 305, 123155.	4.8	23
28	Redox-buffer effect of Fe <sup>2+</sup> ions on the selective olefin/paraffin separation and hydrogen tolerance of a Cu <sup>+</sup> -based mesoporous adsorbent. <i>Journal of Materials Chemistry A</i> , 2013, 1, 6653.	5.2	22
29	Facile preparation of egg-shell-type pellet catalysts using immiscibility between hydrophobic solvent and hydrophilic solution: Enhancement of catalytic activity due to position control of metallic nickel inside alumina pellet. <i>Applied Catalysis A: General</i> , 2017, 530, 211-216.	2.2	19
30	Egg-shell-type Ni supported on MgAl <sub>2</sub> O <sub>4</sub> pellets as catalyst for steam methane reforming: Enhanced coke-resistance and pellet stability. <i>Catalysis Today</i> , 2020, 352, 157-165.	2.2	19
31	Simultaneous impregnation of Ni and an additive via one-step melt-infiltration: Effect of alkaline-earth metal (Ca, Mg, Sr, and Ba) addition on Ni/Al <sub>2</sub> O <sub>3</sub> for CO <sub>2</sub> methanation. <i>Chemical Engineering Journal</i> , 2022, 428, 131393.	6.6	19
32	Hydrogen-rich gas production via steam gasification of food waste over basic oxides (MgO/CaO/SrO) promoted-Ni/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Chemosphere</i> , 2022, 287, 132224.	4.2	18
33	Metallic nickel supported on mesoporous silica as catalyst for hydrodeoxygenation: effect of pore size and structure. <i>Research on Chemical Intermediates</i> , 2018, 44, 3723-3735.	1.3	16
34	Effect of eggshell- and homo-type Ni/Al <sub>2</sub> O <sub>3</sub> catalysts on the pyrolysis of food waste under CO <sub>2</sub> atmosphere. <i>Journal of Environmental Management</i> , 2021, 294, 112959.	3.8	16
35	Catalytic upgrading of lignin derived bio-oil model compound using mesoporous solid catalysts. <i>Research on Chemical Intermediates</i> , 2016, 42, 3-17.	1.3	15
36	Preparation of Ni-based egg-shell-type catalyst on cylinder-shaped alumina pellets and its application for hydrogen production via steam methane reforming. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 5314-5323.	3.8	15

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37	Bio-Diesel Production from Deoxygenation Reaction Over Ce <sub>0.6</sub> Zr <sub>0.4</sub> O <sub>2</sub> Supported Transition Metal (Ni, Cu, Co, and Mo) Catalysts. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 4587-4592.	0.9	13
38	Acetaldehyde removal and increased H <sub>2</sub> /CO gas yield from biomass gasification over metal-loaded Kraft lignin char catalyst. <i>Journal of Environmental Management</i> , 2019, 232, 330-335.	3.8	12
39	Bifunctional metal doping engineering of Ni-supported alumina catalyst for dry methane reforming. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108058.	3.3	12
40	Production of H <sub>2</sub> - and CO-rich syngas from the CO <sub>2</sub> gasification of cow manure over (Sr/Mg)-promoted-Ni/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37218-37226.	3.8	10
41	Understanding the Effect of NO Adsorption on Potassium-Promoted Co <sub>3</sub> O <sub>4</sub> for N <sub>2</sub> O Decomposition. <i>Catalysis Letters</i> , 2017, 147, 2886-2892.	1.4	7
42	Effect of cobalt metal loading on Fischer-Tropsch synthesis activities over Co/Al <sub>2</sub> O <sub>3</sub> catalysts: CO conversion, C <sub>5</sub> + productivity, and $\beta$ value. <i>Research on Chemical Intermediates</i> , 2019, 45, 4417-4429.	1.3	7
43	Enhanced CO <sub>2</sub> Methanation Reaction in C <sub>1</sub> Chemistry over a Highly Dispersed Nickel Nanocatalyst Prepared Using the One-Step Melt-Infiltration Method. <i>Catalysts</i> , 2020, 10, 643.	1.6	7
44	Electrochemical oxidation of some basic alcohols on multiwalled carbon nanotube-platinum composites. <i>Bulletin of Materials Science</i> , 2012, 35, 545-550.	0.8	6
45	Catalytic Pyrolysis of <i>Pinus densiflora</i> Over Mesoporous Al <sub>2</sub> O <sub>3</sub> Catalysts. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 6300-6303.	0.9	6
46	Enhancement in nickel-silica interface generation by surfactant-assisted melt-infiltration: Surfactant selection and application in CO <sub>2</sub> hydrogenation. <i>Chemical Engineering Journal</i> , 2022, 437, 135166.	6.6	5
47	Mesoporous Titania as a Support of Gallium-Based Catalysts for Enhanced Ethane Dehydrogenation Performance. <i>Catalysis Letters</i> , 2021, 151, 2748-2761.	1.4	4
48	Enhanced CO <sub>2</sub> electroconversion of <i>Rhodobacter sphaeroides</i> by cobalt-phosphate complex assisted water oxidation. <i>Bioelectrochemistry</i> , 2022, 145, 108102.	2.4	4
49	Catalytic Hydrodeoxygenation of Bio-Oils Derived from Pyrolysis of Cork Oak Using Supercritical Ethanol. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 2674-2677.	0.9	3
50	Hydrodeoxygenation of Pyrolysis Bio-Oil Over Ni Impregnated Mesoporous Materials. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 1331-1335.	0.9	3
51	Solid-State Pseudomorphic Synthesis of Hollow Silica Nanospheres Using Cyclic Diammonium Molecules. <i>Bulletin of the Korean Chemical Society</i> , 2021, 42, 463-466.	1.0	2
52	Catalytic Pyrolysis of Korean Pine ( <i>Pinus koraiensis</i> ) Nut Shell Over Mesoporous Al <sub>2</sub> O <sub>3</sub> . <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 1351-1355.	0.9	1
53	Impregnation of probiotics into porous TiO <sub>2</sub> support for enhanced viability. <i>Korean Journal of Chemical Engineering</i> , 2021, 38, 475-479.	1.2	1