Yong-Kul Lee

List of Publications by Year
in descending order

71 papers	3,947 citations	147801 31 h-index	118850 62 g-index
73 all docs	73 docs citations	73 times ranked	3543 citing authors

#	Article	IF	Citations
1	Beneficial effect of V on stability of dispersed MoS2 catalysts in slurry phase hydrocracking of vacuum residue: XAFS studies. Journal of Catalysis, 2022, 413, 443-454.	6.2	2
2	Resolving Potential-Dependent Degradation of Electrodeposited Ni(OH)2 Catalysts in Alkaline Oxygen Evolution Reaction (OER): In Situ XANES Studies. Applied Catalysis B: Environmental, 2021, 284, 119729.	20.2	54
3	Sacrificial species approach to designing robust transition metal phosphide cathodes for alkaline water electrolysis in discontinuous operation. Journal of Materials Chemistry A, 2021, 9, 16713-16724.	10.3	13
4	Density Functional Theory (DFT) Calculations and Catalysis. Catalysts, 2021, 11, 454.	3.5	9
5	Reactivity of sulfur compounds in FCC decant oils for hydrodesulfurization over CoMoS2/Al2O3 catalysts. Korean Journal of Chemical Engineering, 2021, 38, 1179-1187.	2.7	3
6	Boosting Activity and Durability of an Electrodeposited Ni(OH)₂ Catalyst Using Carbon Nanotube-Grafted Substrates for the Alkaline Oxygen Evolution Reaction. ACS Applied Nano Materials, 2021, 4, 10267-10274.	5.0	7
7	Structure and activity of unsupported NiWS2 catalysts for slurry phase hydrocracking of vacuum residue: XAFS studies. Journal of Catalysis, 2021, 403, 131-140.	6.2	8
8	Hydrotreating of Waste Tire Pyrolysis Oil over Highly Dispersed Ni2P Catalyst Supported on SBA-15. Catalysts, 2021, 11, 1272.	3.5	6
9	Structure and Activity of Ni2P/Desilicated Zeolite Î² Catalysts for Hydrocracking of Pyrolysis Fuel Oil into Benzene, Toluene, and Xylene. Catalysts, 2020, 10, 47.	3.5	13
10	Conversion of V-porphyrin in asphaltenes into V2S3 as an active catalyst for slurry phase hydrocracking of vacuum residue. Fuel, 2020, 263, 116620.	6.4	19
11	Beneficial roles of carbon black additives in slurry phase hydrocracking of vacuum residue. Applied Catalysis A: General, 2020, 607, 117837.	4.3	6
12	Highly active and stable MoWS2 catalysts in slurry phase hydrocracking of vacuum residue. Journal of Catalysis, 2020, 390, 117-125.	6.2	9
13	Promotional effect of Co on unsupported MoS2 catalysts for slurry phase hydrocracking of vacuum residue: X-ray absorption fine structure studies. Journal of Catalysis, 2019, 380, 278-288.	6.2	13
14	Selective hydrotreating and hydrocracking of FCC light cycle oil into high-value light aromatic hydrocarbons. Applied Catalysis A: General, 2019, 577, 86-98.	4.3	49
15	Promotional effect of Ga for Ni2P catalyst on hydrodesulfurization of 4,6-DMDBT. Applied Catalysis B: Environmental, 2019, 250, 181-188.	20.2	43
16	Comparison of unsupported WS2 and MoS2 catalysts for slurry phase hydrocracking of vacuum residue. Applied Catalysis A: General, 2019, 572, 90-96.	4.3	22
17	Active phase of dispersed MoS2 catalysts for slurry phase hydrocracking of vacuum residue. Journal of Catalysis, 2019, 369, 111-121.	6.2	43
18	Designing supported NiMoS2 catalysts for hydrocracking of vacuum residue. Fuel, 2019, 239, 1265-1273.	6.4	16

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19	Promoting asphaltene conversion by tetralin for hydrocracking of petroleum pitch. Fuel, 2018, 222, 105-113.	6.4	37
20	Strong metal-support interaction effect of Pt/Nb2O5 catalysts on aqueous phase hydrodeoxygenation of 1,6-hexanediol. Catalysis Today, 2018, 302, 108-114.	4.4	16
21	A New Approach to Deep Desulfurization of Light Cycle Oil over Ni2P Catalysts: Combined Selective Oxidation and Hydrotreating. Catalysts, 2018, 8, 102.	3.5	9
22	Structure and activity of dispersed Co, Ni, or Mo sulfides for slurry phase hydrocracking of vacuum residue. Journal of Catalysis, 2018, 364, 131-140.	6.2	46
23	Effects of dispersed MoS2 catalysts and reaction conditions on slurry phase hydrocracking of vacuum residue. Journal of Catalysis, 2017, 347, 127-137.	6.2	87
24	Morphology effect of Î²-zeolite supports for Ni 2 P catalysts on the hydrocracking of polycyclic aromatic hydrocarbons to benzene, toluene, and xylene. Journal of Catalysis, 2017, 351, 67-78.	6.2	54
25	Effects of the asphaltene structure and the tetralin/heptane solvent ratio on the size and shape of asphaltene aggregates. Physical Chemistry Chemical Physics, 2017, 19, 13931-13940.	2.8	16
26	Beneficial roles of H-donors as diluent and H-shuttle for asphaltenes in catalytic upgrading of vacuum residue. Chemical Engineering Journal, 2017, 314, 1-10.	12.7	41
27	Anomalous in situ Activation of Carbon-Supported Ni2P Nanoparticles for Oxygen Evolving Electrocatalysis in Alkaline Media. Scientific Reports, 2017, 7, 8236.	3.3	21
28	Sulfur resistant nature of Ni2P catalyst in deep hydrodesulfurization. Applied Catalysis A: General, 2017, 548, 103-113.	4.3	35
29	Vapor phase deoxygenation of heptanoic acid over silica-supported palladium and palladium-tin catalysts. Journal of Catalysis, 2016, 344, 202-212.	6.2	17
30	Rationalization of electrocatalysis of nickel phosphide nanowires for efficient hydrogen production. Nano Energy, 2016, 26, 496-503.	16.0	61
31	Understanding conversion mechanism of NiO anodic materials for Li-ion battery using in situ X-ray absorption near edge structure spectroscopy. Journal of Power Sources, 2016, 304, 189-195.	7.8	10
32	Support Effects of Ni2P Catalysts on the Hydrodeoxygenation of Guaiacol: In Situ XAFS Studies. Topics in Catalysis, 2015, 58, 211-218.	2.8	31
33	The nature of active sites of Ni2P electrocatalyst for hydrogen evolution reaction. Journal of Catalysis, 2015, 326, 92-99.	6.2	107
34	Conversion mechanisms of cobalt oxide anode for Li-ion battery: In situ X-ray absorption fine structure studies. Journal of Power Sources, 2015, 274, 748-754.	7.8	58
35	Effects of nitrogen compounds, aromatics, and aprotic solvents on the oxidative desulfurization (ODS) of light cycle oil over Ti-SBA-15 catalyst. Applied Catalysis B: Environmental, 2014, 147, 35-42.	20.2	87
36	Dispersion effects of Ni2P catalysts on hydrotreating of light cycle oil. Applied Catalysis B: Environmental, 2014, 150-151, 647-655.	20.2	44

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37	Active sites of Ni2P/SiO2 catalyst for hydrodeoxygenation of guaiacol: A joint XAFS and DFT study. Journal of Catalysis, 2014, 311, 144-152.	6.2	169
38	Novel Ni2P/zeolite catalysts for naphthalene hydrocracking to BTX. Catalysis Communications, 2014, 45, 133-138.	3.3	62
39	Factors influencing the formation of 2-hydroxy-6-naphthoic acid from carboxylation of naphthol. Journal of Industrial and Engineering Chemistry, 2013, 19, 2060-2063.	5.8	2
40	Thermodynamic analysis of steam and aqueous reforming of hydroxylated C6 aliphatic compounds. Journal of Industrial and Engineering Chemistry, 2013, 19, 2072-2078.	5.8	3
41	Beneficial effects of polycyclic aromatics on oxidative desulfurization of light cycle oil over phosphotungstic acid (PTA) catalyst. Fuel Processing Technology, 2013, 114, 1-5.	7.2	16
42	Effects of co loadings on NaCo/ZnO catalysts for ethanol steam reforming: XAFS studies. Journal of the Korean Physical Society, 2013, 63, 1395-1398.	0.7	2
43	Active phase of a Pd-Cu/ZSM-5 catalyst for benzene hydroxylation: In-situ XAFS studies. Journal of the Korean Physical Society, 2012, 61, 293-296.	0.7	4
44	A new synthesis of highly active Ni2P/Al2O3 catalyst by liquid phase phosphidation for deep hydrodesulfurization. Catalysis Communications, 2011, 12, 470-474.	3.3	44
45	Formation mechanisms of Ni2P nanocrystals using XANES and EXAFS spectroscopy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 132-140.	3.5	35
46	EXAFS Studies on the Formation of MoS2 Nanowires. Journal of the Korean Physical Society, 2011, 59, 730-734.	0.7	8
47	TPR and EXAFS Studies on Na-Promoted Co/ZnO Catalysts for Ethanol Steam Reforming. Topics in Catalysis, 2010, 53, 615-620.	2.8	12
48	XAFS studies on highly dispersed Ni2P/SiO2 catalysts for hydrodesulfurization of 4,6-dimethyldibenzothiophene. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 621, 690-694.	1.6	6
49	Hydrogen production from ethanol over Co/ZnO catalyst in a multi-layered reformer. International Journal of Hydrogen Energy, 2010, 35, 1147-1151.	7.1	17
50	The active phase of NaCo/ZnO catalyst for ethanol steam reforming: EXAFS and in situ XANES studies. International Journal of Hydrogen Energy, 2010, 35, 5378-5382.	7.1	22
51	Nickel Phosphide Catalysts Supported on SBA-15 for Hydrodesulfurization of 4,6-Dimethyldibenzothiophene. Journal of the Japan Petroleum Institute, 2010, 53, 173-177.	0.6	3
52	Effects of Phosphorus Precursor on Structure and Activity of Ni2P/SiO2 Hydrotreating Catalysts: EXAFS Studies. Journal of the Korean Physical Society, 2010, 56, 2083-2087.	0.7	6
53	Transition metal phosphide hydroprocessing catalysts: A review. Catalysis Today, 2009, 143, 94-107.	4.4	704
54	35-We polymer electrolyte membrane fuel cell system for notebook computer using a compact fuel processor. Journal of Power Sources, 2008, 185, 171-178.	7.8	15

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55	The active site of nickel phosphide catalysts for the hydrodesulfurization of 4,6-DMDBT. Journal of Catalysis, 2008, 258, 393-400.	6.2	248
56	In Situ EXAFS Studies on Ni2P Hydrodesulfurization Catalysts in the Presence of High Pressure and High Temperature Oil. AIP Conference Proceedings, 2007, , .	0.4	3
57	True Intermediates and Spectators in Reaction Mechanisms: A Kinetic and Spectroscopic Study. Studies in Surface Science and Catalysis, 2007, 172, 103-108.	1.5	0
58	Active phase of a nickel phosphide (Ni2P) catalyst supported on KUSY zeolite for the hydrodesulfurization of 4,6-DMDBT. Applied Catalysis A: General, 2007, 322, 191-204.	4.3	99
59	Structure and Oxidation State of Silica-Supported Manganese Oxide Catalysts and Reactivity for Acetone Oxidation with Ozone. Journal of Physical Chemistry B, 2006, 110, 4207-4216.	2.6	108
60	Comparison of Structural Properties of SiO2, Al2O3, and C/Al2O3Supported Ni2P catalysts. Studies in Surface Science and Catalysis, 2006, 159, 357-360.	1.5	15
61	Bifunctional nature of a SiO2-supported Ni2P catalyst for hydrotreating: EXAFS and FTIR studies. Journal of Catalysis, 2006, 239, 376-389.	6.2	229
62	EXAFS measurements of a working catalyst in the liquid phase: An in situ study of a Ni2P hydrodesulfurization catalyst. Journal of Catalysis, 2006, 241, 20-24.	6.2	81
63	Structure-sensitivity of hydrodesulfurization of 4,6-dimethyldibenzothiophene over silica-supported nickel phosphide catalysts. Journal of Catalysis, 2005, 236, 112-121.	6.2	97
64	Mechanism of Hydrodenitrogenation on Phosphides and Sulfidesâ€. Journal of Physical Chemistry B, 2005, 109, 2109-2119.	2.6	50
65	Acetone Oxidation Using Ozone on Manganese Oxide Catalysts. Journal of Physical Chemistry B, 2005, 109, 17587-17596.	2.6	98
66	Kinetics of Two Pathways for 4,6-Dimethyldibenzothiophene Hydrodesulfurization over NiMo, CoMo Sulfide, and Nickel Phosphide Catalysts. Energy & Fuels, 2005, 19, 353-364.	5.1	82
67	Active phase of Ni2P/SiO2 in hydroprocessing reactions. Journal of Catalysis, 2004, 221, 263-273.	6.2	222
68	In Situ X-ray Absorption Fine Structure Studies on the Structure of Nickel Phosphide Catalyst Supported on K-USY. Chemistry Letters, 2003, 32, 956-957.	1.3	15
69	Effect of Phosphorus Content in Nickel Phosphide Catalysts Studied by XAFS and Other Techniques. Journal of Catalysis, 2002, 210, 207-217.	6.2	311
70	Preparation of colloidal silica using peptization method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 173, 109-116.	4.7	20
71	Transalkylation of toluene and 1,2,4-trimethylbenzene over large pore zeolites. Catalysis Today, 1998, 44, 223-233.	4.4	27