Jae-chang Kim

List of Publications by Year
in descending order

58	1,487	361413 20	315739 38
papers	citations	h-index	g-index

58	58	58	1155
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CO2 absorption and regeneration of alkali metal-based solid sorbents. Catalysis Today, 2006, 111, 385-390.	4.4	244
2	Dry Potassium-Based Sorbents for CO2 Capture. Catalysis Surveys From Asia, 2007, 11, 171-185.	2.6	117
3	The effect of water on the activation and the CO2 capture capacities of alkali metal-based sorbents. Korean Journal of Chemical Engineering, 2006, 23, 374-379.	2.7	107
4	Novel regenerable potassium-based dry sorbents for CO2 capture at low temperatures. Journal of Molecular Catalysis B: Enzymatic, 2009, 56, 179-184.	1.8	98
5	Critical Properties of Carbon Dioxide + Methanol, + Ethanol, + 1-Propanol, and + 1-Butanol. Journal of Chemical & Engineering Data, 2000, 45, 932-935.	1.9	96
6	The effect of relative humidity on CO2 capture capacity of potassium-based sorbents. Korean Journal of Chemical Engineering, 2011, 28, 480-486.	2.7	52
7	Development of new alumina-modified sorbents for CO2 sorption and regeneration at temperatures below 200 Â°C. Fuel, 2011, 90, 1465-1470.	6.4	51
8	CO₂ green technologies in CO₂ capture and direct utilization processes: methanation, reverse water-gas shift, and dry reforming of methane. Sustainable Energy and Fuels, 2020, 4, 5543-5549.	4.9	48
9	A novel integrated CO₂ capture and direct methanation process using Ni/CaO catal-sorbents. Sustainable Energy and Fuels, 2020, 4, 4679-4687.	4.9	45
10	Structure Effects of Potassium-Based TiO2 Sorbents on the CO2 Capture Capacity. Topics in Catalysis, 2010, 53, 641-647.	2.8	41
11	Improving regeneration properties of potassium-based alumina sorbents for carbon dioxide capture from flue gas. Fuel, 2013, 104, 882-885.	6.4	41
12	Novel SnO2-based gas sensors promoted with metal oxides for the detection of dichloromethane. Sensors and Actuators B: Chemical, 2009, 138, 446-452.	7.8	37
13	Regenerable MgO-Based SOxRemoval Sorbents Promoted with Cerium and Iron Oxide in RFCC. Industrial & Engineering Chemistry Research, 2005, 44, 9973-9978.	3.7	31
14	The simultaneous removal of hydrogen sulfide and ammonia over zinc-based dry sorbent supported on alumina. Separation and Purification Technology, 2008, 63, 297-302.	7.9	31
15	CO 2 capture and regeneration properties of MgO-based sorbents promoted with alkali metal nitrates at high pressure for the sorption enhanced water gas shift process. Chemical Engineering Research and Design, 2018, 116, 219-227.	5.6	30
16	Catalytic Technologies for CO Hydrogenation for the Production of Light Hydrocarbons and Middle Distillates. Catalysts, 2020, 10, 99.	3.5	26
17	Excellent thermal stability of potassium-based sorbent using ZrO2 for post combustion CO2 capture. Fuel, 2014, 115, 97-100.	6.4	25
18	Effects of alkali-metal carbonates and nitrates on the CO2 sorption and regeneration of MgO-based sorbents at intermediate temperatures. Korean Journal of Chemical Engineering, 2016, 33, 3448-3455.	2.7	25

#	Article	IF	Citations
19	Effects of alumina phases on CO2 sorption and regeneration properties of potassium-based alumina sorbents. Adsorption, 2014, 20, 331-339.	3.0	24
20	Coke-promoted Ni/CaO catal-sorbents in the production of cyclic CO and syngas. Sustainable Energy and Fuels, 2021, 6, 81-88.	4.9	21
21	Electrochemical grafting of poly(2,5-dimethoxy aniline) onto multiwalled carbon nanotubes nanocomposite modified electrode and electrocatalytic oxidation of ascorbic acid. Macromolecular Research, 2011, 19, 764-769.	2.4	19
22	Selective CO hydrogenation over bimetallic Co-Fe catalysts for the production of light paraffin hydrocarbons (C2-C4): Effect of H2/CO ratio and reaction temperature. Catalysis Communications, 2018, 117, 74-78.	3.3	18
23	The adsorption properties of organic sulfur compounds on zeolite-based sorbents impregnated with rare-earth metals. Adsorption, 2014, 20, 341-348.	3.0	17
24	The effect of HCl and H2O on the H2S removing capacities of Zn-Ti-based desulfurization sorbents promoted by cobalt and nickel oxide. Korean Journal of Chemical Engineering, 2004, 21, 425-429.	2.7	16
25	A fundamental study of CO2 capture and CH4 production in a rapid cyclic system using nickel-lithium-silicate as a catal-sorbent. Fuel, 2022, 311, 122602.	6.4	15
26	Characterization of new potassium-based solid sorbents prepared using metal silicates for post-combustion CO2 capture. Chemical Engineering Research and Design, 2018, 117, 296-306.	5.6	14
27	Anodic aluminum oxide supported Cu-Zn catalyst for oxidative steam reforming of methanol. Korean Journal of Chemical Engineering, 2019, 36, 368-376.	2.7	14
28	Optimum design and characteristics of potassium-based sorbents using SiO2 for post-combustion CO2 capture. Renewable Energy, 2019, 144, 107-115.	8.9	13
29	Regenerable potassium-based alumina sorbents prepared by CO2 thermal treatment for post-combustion carbon dioxide capture. Korean Journal of Chemical Engineering, 2016, 33, 3207-3215.	2.7	12
30	Enhanced Ni-Al-Based Catalysts and Influence of Aromatic Hydrocarbon for Autothermal Reforming of Diesel Surrogate Fuel. Catalysts, 2019, 9, 573.	3.5	12
31	N-Dodecane Autothermal Reforming Properties of Ni-Al Based Catalysts Prepared by Various Methods. Topics in Catalysis, 2017, 60, 727-734.	2.8	11
32	A study on Zn-based catal-sorbents for the simultaneous removal of hydrogen sulfide and ammonia at high temperature. Research on Chemical Intermediates, 2011, 37, 1193-1202.	2.7	10
33	SnO2 nanowire gas sensors for detection of ppb level NOx gas. Adsorption, 2019, 25, 1259-1269.	3.0	10
34	A Study of the Zn-based Desulfurization Sorbents for H2S Removal in the IGCC. Catalysis Surveys From Asia, 2013, 17, 85-102.	2.6	9
35	A Study on the Regenerable Co and Ni-Based Sorbents to Remove Hydrogen Sulfide at Middle Temperature. Topics in Catalysis, 2010, 53, 635-640.	2.8	8
36	Selective CO Hydrogenation Over Bimetallic Co-Fe Catalysts for the Production of Light Paraffin Hydrocarbons (C2â€“C4): Effect of Space Velocity, Reaction Pressure and Temperature. Catalysts, 2019, 9, 779.	3.5	8

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37	Selective O-Alkylation Reaction of Hydroquinone with Methanol over Cs Ion-Exchanged Zeolites. Korean Journal of Chemical Engineering, 2002, 19, 406-410.	2.7	7
38	Preparation and performance of potassium-based sorbent using SnO2 for post-combustion CO2 capture. Adsorption, 2016, 22, 1119-1127.	3.0	7
39	Enhancing the effect of CoAl2O4 on the simultaneous removal of H2S and NH3 on Co- and Mo- based catal-sorbents in IGCC. Separation and Purification Technology, 2017, 177, 94-100.	7.9	7
40	A study of the sulfidation and regeneration reaction cycles of Zn-Ti-based sorbents with different crystal structures. Korean Journal of Chemical Engineering, 2010, 27, 1428-1434.	2.7	6
41	Hybrid catalysts in a double-layered bed reactor for the production of C2â€“C4 paraffin hydrocarbons. Catalysis Communications, 2019, 127, 29-33.	3.3	6
42	Effect of reducibility on the performance of Co-based catalysts for the production of high-calorie synthetic natural gas. Korean Journal of Chemical Engineering, 2020, 37, 1690-1698.	2.7	6
43	Investigation of Coâ€“Feâ€“Al Catalysts for High-Calorific Synthetic Natural Gas Production: Pilot-Scale Synthesis of Catalysts. Catalysts, 2021, 11, 105.	3.5	6
44	The removal of the acetonitrile using activated carbon-based sorbent impregnated with sodium carbonate. Korean Journal of Chemical Engineering, 2012, 29, 489-493.	2.7	5
45	Performance of an Auto-Reduced Nickel Catalyst for Auto-Thermal Reforming of Dodecane. Catalysts, 2018, 8, 371.	3.5	5
46	Thermally stable amine-functionalized silica sorbents using one-pot synthesis method for CO2 capture at low temperature. Korean Journal of Chemical Engineering, 2020, 37, 2317-2325.	2.7	5
47	Improving the SO2 absorption rate of CeFeMg-based sorbent promoted with titanium promoter. Korean Journal of Chemical Engineering, 2009, 26, 1286-1290.	2.7	4
48	Potassium-based dry sorbents for removal of sulfur dioxide at low temperatures. Journal of Industrial and Engineering Chemistry, 2016, 36, 35-39.	5.8	4
49	Effects of Thin-Film Thickness on Sensing Properties of SnO₂-Based Gas Sensors for the Detection of H₂S Gas at ppm Levels. Journal of Nanoscience and Nanotechnology, 2020, 20, 7169-7174.	0.9	4
50	Influence of Ni on Fe and Co-Fe Based Catalysts for High-Calorific Synthetic Natural Gas. Catalysts, 2021, 11, 697.	3.5	4
51	Influence of the sorption pressure and K2CO3 loading of a MgO-based sorbent for application to the SEWGS process. Korean Journal of Chemical Engineering, 2022, 39, 1028-1035.	2.7	4
52	CO2 Sorption and Regeneration Properties of K2CO3/Al2O3-Based Sorbent at High Pressure and Moderate Temperature. Applied Sciences (Switzerland), 2022, 12, 2989.	2.5	3
53	Study of molybdenumâ€“nickel alumina based catal-sorbents to simultaneously remove of H2S and NH3 from hot coal gas. Adsorption, 2016, 22, 1109-1117.	3.0	2
54	CO₂ Sorption Properties of Nano-Sized Zirconia-Based Sorbents Promoted with Alkali Metal Carbonates. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 460-465.	0.5	2

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55	Catalytic synthesis of thiophene from the reaction of n-butanol and carbon disulfide over K2CO3-promoted Cr2O3/Î³-alumina catalyst. Korean Journal of Chemical Engineering, 2009, 26, 57-63.	2.7	1
56	Preparation of Eggshell-Type Ru/Al2O3 Catalysts for Hydrogen Production Using Steam-Methane Reforming on PEMFC. Catalysts, 2021, 11, 951.	3.5	1
57	Deactivation of Niâ€“Al-Based Catalysts for Autothermal Reforming of Diesel Surrogate Fuel in the Presence of an Aromatic Hydrocarbon. Journal of Nanoscience and Nanotechnology, 2020, 20, 7018-7026.	0.9	1
58	10.2478/s11814-009-0204-9. , 2011, 26, 1286.		1