

Hankwon Lim

List of Publications by Year in descending order

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141
papers

3,327
citations

136740

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142
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142
docs citations

142
times ranked

2800
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy, economic, and environmental impacts of sustainable biochar systems in rural China. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 1063-1091.	6.6	25
2	Catalytic pyrolysis of spent coffee waste for upgrading sustainable bio-oil in a bubbling fluidized-bed reactor: Experimental and techno-economic analysis. <i>Chemical Engineering Journal</i> , 2022, 427, 130956.	6.6	25
3	Three-dimensional CFD simulation of proton exchange membrane water electrolyser: Performance assessment under different condition. <i>Applied Energy</i> , 2022, 306, 118016.	5.1	27
4	State-of-the-art assessment of cryogenic technologies for biogas upgrading: Energy, economic, and environmental perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 154, 111826.	8.2	29
5	Projected cost analysis of hybrid methanol production from tri-reforming of methane integrated with various water electrolysis systems: Technical and economic assessment. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 155, 111876.	8.2	10
6	Economic and environmental sustainability for anaerobic biological treatment of wastewater from paper and cardboard manufacturing industry. <i>Chemosphere</i> , 2022, 289, 133166.	4.2	14
7	Carbon-neutral methanol synthesis as carbon dioxide utilization at different scales: Economic and environmental perspectives. <i>Energy Conversion and Management</i> , 2022, 252, 115119.	4.4	31
8	State-of-the-art process simulations and techno-economic assessments of ionic liquid-based biogas upgrading techniques: Challenges and prospects. <i>Fuel</i> , 2022, 314, 123064.	3.4	29
9	Sustainability-inspired upcycling of waste polyethylene terephthalate plastic into porous carbon for CO ₂ capture. <i>Green Chemistry</i> , 2022, 24, 1494-1504.	4.6	51
10	Sustainable and carbon-neutral green diesel synthesis with thermochemical and electrochemical approach: Techno-economic and environmental assessments. <i>Energy Conversion and Management</i> , 2022, 254, 115242.	4.4	7
11	Hydrogen enrichment by CO ₂ anti-sublimation integrated with triple mixed refrigerant-based liquid hydrogen production process. <i>Journal of Cleaner Production</i> , 2022, 341, 130745.	4.6	13
12	Hybrid CFD-neural networks technique to predict circulating fluidized bed reactor riser hydrodynamics. <i>Journal of Cleaner Production</i> , 2022, 337, 130490.	4.6	18
13	Comparative Techno-economic analysis of methanol production via carbon dioxide reforming of landfill gas using a highly active and stable Nickel-based catalyst. <i>Energy Conversion and Management</i> , 2022, 259, 115585.	4.4	11
14	Critical aspect of renewable syngas production for power-to-fuel via solid oxide electrolysis: Integrative assessment for potential renewable energy source. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 161, 112398.	8.2	19
15	An innovative high energy efficiency-based process enhancement of hydrogen liquefaction: Energy, exergy, and economic perspectives. <i>Fuel</i> , 2022, 320, 123964.	3.4	19
16	Direct propylene epoxidation with oxygen using a photo-electro-heterogeneous catalytic system. <i>Nature Catalysis</i> , 2022, 5, 37-44.	16.1	58
17	Demonstration of feasible waste plastic pyrolysis through decentralized biomass heating business model. <i>Journal of Cleaner Production</i> , 2022, 361, 132092.	4.6	5
18	Machine learning based prediction of subcooled bubble condensation behavior, validation with experimental and numerical results. <i>Nuclear Engineering and Design</i> , 2022, 393, 111794.	0.8	5

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19	CFD simulation of hydrodynamics and heat transfer characteristics in gasâ€‘solid circulating fluidized bed riser under fast pyrolysis flow condition. Applied Thermal Engineering, 2022, 212, 118555.	3.0	8
20	Thermodynamic, economic, and emissions assessment of integrated power to methanol concept with membrane-based biogas up-gradation and plasma electrolysis. Journal of Cleaner Production, 2022, 363, 132367.	4.6	10
21	A 4E feasibility analysis of an on-site, ammonia sourced, hydrogen refueling station. Journal of Cleaner Production, 2022, , 132356.	4.6	3
22	Statistical and stochastic feasibility studies of potential liquid organic hydrogen carriers in a membrane reactor for simultaneous hydrogen storage and production: Technical, economic, and environmental aspects. Renewable Energy, 2022, 195, 1393-1411.	4.3	4
23	Techno-economic and environmental assessments for sustainable bio-methanol production as landfill gas valorization. Waste Management, 2022, 150, 90-97.	3.7	16
24	Mixed refrigerantâ€‘based simplified hydrogen liquefaction process: Energy, exergy, economic, and environmental analysis. Journal of Cleaner Production, 2022, 367, 132947.	4.6	16
25	Hybrid machine learning-based model for solubilities prediction of various gases in deep eutectic solvent for rigorous process design of hydrogen purification. Separation and Purification Technology, 2022, 298, 121651.	3.9	7
26	The power of molten salt in methane dry reforming: Conceptual design with a CFD study. Chemical Engineering and Processing: Process Intensification, 2021, 159, 108230.	1.8	6
27	Techno-economic analysis of H2 energy storage system based on renewable energy certificate. Renewable Energy, 2021, 167, 91-98.	4.3	11
28	Conceptual feasibility studies for cost-efficient and bi-functional methylcyclohexane dehydrogenation in a membrane reactor for H2 storage and production. Energy Conversion and Management, 2021, 227, 113576.	4.4	27
29	Improving revenue from lignocellulosic biofuels: An integrated strategy for coproducing liquid transportation fuels and high value-added chemicals. Fuel, 2021, 287, 119369.	3.4	21
30	What is the best green propylene production pathway?: technical, economic, and environmental assessment. Green Chemistry, 2021, 23, 7635-7645.	4.6	11
31	Biogas upgrading through blends of deep eutectic solvents and monoethanol amine: 4 E analysis (energy, exergy, environmental, and economic). Green Chemistry, 2021, 23, 6076-6089.	4.6	14
32	Scenario-Based Techno-Economic Analysis of Steam Methane Reforming Process for Hydrogen Production. Applied Sciences (Switzerland), 2021, 11, 6021.	1.3	17
33	Iron-impregnated spent coffee ground biochar for enhanced degradation of methylene blue during cold plasma application. Journal of Industrial and Engineering Chemistry, 2021, 98, 383-388.	2.9	10
34	Which water electrolysis technology is appropriate?: Critical insights of potential water electrolysis for green ammonia production. Renewable and Sustainable Energy Reviews, 2021, 143, 110963.	8.2	26
35	Comparative techno-economic analysis for steam methane reforming in a sorption-enhanced membrane reactor: Simultaneous H2 production and CO2 capture. Chemical Engineering Research and Design, 2021, 171, 383-394.	2.7	15
36	CFD simulation of methane steam reforming in a membrane reactor: Performance characteristics over range of operating window. International Journal of Hydrogen Energy, 2021, 46, 30402-30411.	3.8	22

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37	Integrated strategy for coproducing bioethanol and adipic acid from lignocellulosic biomass. <i>Journal of Cleaner Production</i> , 2021, 311, 127849.	4.6	16
38	Integrative techno-economic and environmental assessment for green H ₂ production by alkaline water electrolysis based on experimental data. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106349.	3.3	40
39	A novel combined multi-battery dataset based approach for enhanced prediction accuracy of data driven prognostic models in capacity estimation of lithium ion batteries. <i>Energy and AI</i> , 2021, 5, 100089.	5.8	25
40	Parametric Study for Thermal and Catalytic Methane Pyrolysis for Hydrogen Production: Techno-Economic and Scenario Analysis. <i>Energies</i> , 2021, 14, 6102.	1.6	10
41	Thorough economic and carbon footprint analysis of overall hydrogen supply for different hydrogen carriers from overseas production to inland distribution. <i>Journal of Cleaner Production</i> , 2021, 316, 128326.	4.6	21
42	Renewable LNG production: Biogas upgrading through CO ₂ solidification integrated with single-loop mixed refrigerant biomethane liquefaction process. <i>Energy Conversion and Management</i> , 2021, 243, 114363.	4.4	18
43	Optimized H ₂ fueling station arrangement model based on total cost of ownership (TCO) of fuel cell electric vehicle (FCEV). <i>International Journal of Hydrogen Energy</i> , 2021, 46, 34116-34127.	3.8	13
44	Impact of voltage degradation in water electrolyzers on sustainability of synthetic natural gas production: Energy, economic, and environmental analysis. <i>Energy Conversion and Management</i> , 2021, 245, 114516.	4.4	6
45	H ₂ production from catalytic dry reforming of landfill gas utilizing membrane reactor with combined heat and power system: 3E (energy, economic and environmental) feasibility analysis. <i>Energy Conversion and Management</i> , 2021, 247, 114704.	4.4	3
46	Comprehensive analysis of overall H ₂ supply for different H ₂ carriers from overseas production to inland distribution with respect to economic, environmental, and technological aspects. <i>Renewable Energy</i> , 2021, 177, 422-432.	4.3	7
47	Techno-economic analysis of livestock urine and manure as a microalgal growth medium. <i>Waste Management</i> , 2021, 135, 276-286.	3.7	5
48	An efficient process for sustainable and scalable hydrogen production from green ammonia. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111562.	8.2	38
49	Comparative feasibility studies of H ₂ supply scenarios for methanol as a carbon-neutral H ₂ carrier at various scales and distances. <i>Renewable Energy</i> , 2021, 180, 552-559.	4.3	12
50	Machine learning based predictive model for methanol steam reforming with technical, environmental, and economic perspectives. <i>Chemical Engineering Journal</i> , 2021, 426, 131639.	6.6	17
51	Capacity estimation of batteries: Influence of training dataset size and diversity on data driven prognostic models. <i>Reliability Engineering and System Safety</i> , 2021, 216, 108048.	5.1	43
52	Comparative Economic Optimization for an Overseas Hydrogen Supply Chain Using Mixed-Integer Linear Programming. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 14249-14262.	3.2	16
53	An integrative process of blast furnace and SOEC for hydrogen utilization: Techno-economic and environmental impact assessment. <i>Energy Conversion and Management</i> , 2021, 250, 114922.	4.4	23
54	Pressure Swing-Based Reactive Distillation and Dividing Wall Column for Improving Manufacture of Propylene Glycol Monomethyl Ether Acetate. <i>Energies</i> , 2021, 14, 7416.	1.6	0

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55	Life cycle techno-economic and carbon footprint analysis of H ₂ production via NH ₃ decomposition: A Case study for the Republic of Korea. <i>Energy Conversion and Management</i> , 2021, 250, 114881.	4.4	15
56	Economic Parity Analysis of Green Methanol Synthesis Using Water Electrolysis Based on Renewable Energy. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 15807-15818.	3.2	15
57	Variation of the Number of Heat Sources in Methane Dry Reforming: A Computational Fluid Dynamics Study. <i>International Journal of Chemical Engineering</i> , 2021, 2021, 1-15.	1.4	3
58	Comprehensive assessment of CO ₂ methanation: which H ₂ production pathway is practicable for green methane production in terms of technical, economic, and environmental aspects?. <i>Green Chemistry</i> , 2021, 23, 9502-9514.	4.6	16
59	Enhanced anaerobic co-digestion of fat, oil, and grease by calcium addition: Boost of biomethane production and microbial community shift. <i>Bioresource Technology</i> , 2020, 296, 122353.	4.8	53
60	Techno-economic and environmental assessment of methanol steam reforming for H ₂ production at various scales. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 24146-24158.	3.8	38
61	Technical and economic feasibility under uncertainty for methane dry reforming of coke oven gas as simultaneous H ₂ production and CO ₂ utilization. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 133, 110056.	8.2	29
62	Renewable methanol synthesis from renewable H ₂ and captured CO ₂ : How can power-to-liquid technology be economically feasible?. <i>Applied Energy</i> , 2020, 279, 115827.	5.1	58
63	Dark fermentative hydrogen production from pretreated lignocellulosic biomass: Effects of inhibitory byproducts and recent trends in mitigation strategies. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 133, 110338.	8.2	60
64	Experiment and multiphase CFD simulation of gas-solid flow in a CFB reactor at various operating conditions: Assessing the performance of 2D and 3D simulations. <i>Korean Journal of Chemical Engineering</i> , 2020, 37, 2094-2103.	1.2	12
65	Systematic assessment of the anode flow field hydrodynamics in a new circular PEM water electrolyser. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 20765-20775.	3.8	24
66	Economic and environmental analysis for PEM water electrolysis based on replacement moment and renewable electricity resources. <i>Energy Conversion and Management</i> , 2020, 224, 113477.	4.4	38
67	Unveiling Electrodeâ€“Electrolyte Design-Based NO Reduction for NH ₃ Synthesis. <i>ACS Energy Letters</i> , 2020, 5, 3647-3656.	8.8	97
68	Utilization of CO ₂ arising from methane steam reforming reaction: Use of CO ₂ membrane and heterotic reactors. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 91, 201-212.	2.9	10
69	Al ₂ O ₃ -Coated Ni/CeO ₂ nanoparticles as coke-resistant catalyst for dry reforming of methane. <i>Catalysis Science and Technology</i> , 2020, 10, 8283-8294.	2.1	22
70	Maximizing the sustainability of a macroalgae biorefinery: a superstructure optimization of a volatile fatty acid platform. <i>Green Chemistry</i> , 2020, 22, 4174-4186.	4.6	19
71	Design, economic evaluation, and market uncertainty analysis of LOHC-based, CO ₂ free, hydrogen delivery systems. <i>Applied Energy</i> , 2020, 274, 115314.	5.1	30
72	The effect of changing the number of membranes in methane carbon dioxide reforming: A CFD study. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 87, 110-119.	2.9	16

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73	An Assessment of Drag Models in Eulerian–Eulerian CFD Simulation of Gas–Solid Flow Hydrodynamics in Circulating Fluidized Bed Riser. <i>ChemEngineering</i> , 2020, 4, 37.	1.0	17
74	Preliminary techno-economic analysis of biodiesel production over solid-biochar. <i>Bioresource Technology</i> , 2020, 306, 123086.	4.8	71
75	Concept for Temperature-Cascade Hydrogen Release from Organic Liquid Carriers Coupled with SOFC Power Generation. <i>Cell Reports Physical Science</i> , 2020, 1, 100032.	2.8	7
76	Comparative numerical analysis for an efficient hydrogen production via a steam methane reforming with a packed-bed reactor, a membrane reactor, and a sorption-enhanced membrane reactor. <i>Energy Conversion and Management</i> , 2020, 213, 112839.	4.4	24
77	Energy-efficient pretreatments for the enhanced conversion of microalgal biomass to biofuels. <i>Bioresource Technology</i> , 2020, 309, 123333.	4.8	36
78	Integrative Technical, Economic, and Environmental Feasibility Analysis for Ethane Steam Reforming in a Membrane Reactor for H ₂ Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7011-7019.	3.2	10
79	Stochastic techno-economic analysis of H ₂ production from power-to-gas using a high-pressure PEM water electrolyzer for a small-scale H ₂ fueling station. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2521-2529.	2.5	25
80	Assessment of the economic potential: CO ₂ -free hydrogen production from renewables via ammonia decomposition for small-sized H ₂ refueling stations. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109262.	8.2	49
81	Comprehensive feasibility assessment of a poly-generation process integrating fast pyrolysis of <i>S. japonica</i> and the Rankine cycle. <i>Applied Energy</i> , 2019, 254, 113704.	5.1	23
82	Techno-economic assessment of conventional and direct-transesterification processes for microalgal biomass to biodiesel conversion. <i>Bioresource Technology</i> , 2019, 294, 122173.	4.8	25
83	Cost-competitive methane steam reforming in a membrane reactor for H ₂ production: Technical and economic evaluation with a window of a H ₂ selectivity. <i>International Journal of Energy Research</i> , 2019, 43, 1468-1478.	2.2	17
84	Quantification of economic uncertainty for synthetic natural gas production in a H ₂ O permeable membrane reactor as simultaneous power-to-gas and CO ₂ utilization technologies. <i>Energy</i> , 2019, 182, 1058-1068.	4.5	12
85	Projected economic outlook and scenario analysis for H ₂ production by alkaline water electrolysis on the basis of the unit electricity price, the learning rate, and the automation level. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1799-1807.	2.5	20
86	Green energy from brown seaweed: Sustainable polygeneration industrial process via fast pyrolysis of <i>S. Japonica</i> combined with the Brayton cycle. <i>Energy Conversion and Management</i> , 2019, 195, 1244-1254.	4.4	28
87	Stochastic techno-economic analysis of power-to-gas technology for synthetic natural gas production based on renewable H ₂ cost and CO ₂ tax credit. <i>Journal of Energy Storage</i> , 2019, 24, 100791.	3.9	27
88	Fast pyrolysis of acid-washed oil palm empty fruit bunch for bio-oil production in a bubbling fluidized-bed reactor. <i>Energy</i> , 2019, 179, 517-527.	4.5	26
89	Deterministic and stochastic economic analysis based on historical natural gas and CO ₂ allowance prices for steam reforming of methanol. <i>Energy Conversion and Management</i> , 2019, 193, 140-148.	4.4	5
90	Uptake and biodegradation of emerging contaminant sulfamethoxazole from aqueous phase using <i>Ipomoea aquatica</i> . <i>Chemosphere</i> , 2019, 225, 696-704.	4.2	53

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91	Steam reforming of methanol for ultra-pure H ₂ production in a membrane reactor: Techno-economic analysis. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2330-2339.	3.8	38
92	A novel structured nanosized CaO on nanosilica surface as an alternative solid reducing agent for hydrogen fluoride removal from industrial waste water. <i>Journal of Environmental Management</i> , 2019, 231, 1076-1081.	3.8	3
93	Integrated techno-economic analysis under uncertainty of glycerol steam reforming for H ₂ production at distributed H ₂ refueling stations. <i>Energy Conversion and Management</i> , 2019, 180, 250-257.	4.4	36
94	CO ₂ reforming of methane for H ₂ production in a membrane reactor as CO ₂ utilization: Computational fluid dynamics studies with a reactor geometry. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2298-2311.	3.8	27
95	Removal of volatile organic compounds from air using activated carbon impregnated cellulose acetate electrospun mats. <i>Environmental Engineering Research</i> , 2019, 24, 600-607.	1.5	16
96	Conceptual design of a new SF ₆ abatement technology using a multi-bed series reactor for the production of valuable chemicals free of toxic wastes. <i>Energy Science and Engineering</i> , 2018, 6, 73-82.	1.9	8
97	Conceptual feasibility studies of a CO _x -free hydrogen production from ammonia decomposition in a membrane reactor for PEM fuel cells. <i>Korean Journal of Chemical Engineering</i> , 2018, 35, 1509-1516.	1.2	18
98	Economic feasibility studies of high pressure PEM water electrolysis for distributed H ₂ refueling stations. <i>Energy Conversion and Management</i> , 2018, 162, 139-144.	4.4	74
99	Hydrogen production by steam methane reforming in a membrane reactor equipped with a Pd composite membrane deposited on a porous stainless steel. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 7684-7692.	3.8	49
100	Methane steam reforming using a membrane reactor equipped with a Pd-based composite membrane for effective hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5863-5872.	3.8	60
101	Techno-economic analysis (TEA) for CO ₂ reforming of methane in a membrane reactor for simultaneous CO ₂ utilization and ultra-pure H ₂ production. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5881-5893.	3.8	31
102	Techno-economic analysis: Ethane steam reforming in a membrane reactor with H ₂ selectivity effect and profitability analysis. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 7693-7702.	3.8	16
103	Techno-economic analysis for CO ₂ reforming of a medium-grade landfill gas in a membrane reactor for H ₂ production. <i>Journal of Cleaner Production</i> , 2018, 172, 2585-2593.	4.6	20
104	Hydrogen production by steam methane reforming in membrane reactor equipped with Pd membrane deposited on NiO/YSZ/NiO multilayer-treated porous stainless steel. <i>Journal of Membrane Science</i> , 2018, 563, 75-82.	4.1	39
105	High Oxidizing Stability and Ion Selectivity of Hybrid Polymer Electrolyte Membrane for Improving Electrochemical Performance in Vanadium Redox Flow Battery. <i>Journal of the Electrochemical Society</i> , 2018, 165, A2321-A2329.	1.3	18
106	Techno-economic analysis of a biological desulfurization process for a landfill gas in Korea. <i>Separation Science and Technology</i> , 2018, 53, 2769-2781.	1.3	5
107	Removal of Hazardous Hydrogen Fluoride (HF) from Water Through Homogeneous Nanostructured CaO-SiO ₂ Sorbents: Optimization of Binder. <i>Water, Air, and Soil Pollution</i> , 2018, 229, 1.	1.1	3
108	Preliminary techno-economic analysis of a multi-bed series reactor as a simultaneous CF ₄ abatement and utilization process. , 2017, 7, 542-549.		9

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109	Economic evaluation with sensitivity and profitability analysis for hydrogen production from water electrolysis in Korea. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 6462-6471.	3.8	134
110	About vortex equations of two dimensional flows. <i>Indian Journal of Physics</i> , 2017, 91, 1089-1094.	0.9	1
111	Methane steam reforming in a membrane reactor using high-permeable and low-selective Pd-Ru membrane. <i>Korean Journal of Chemical Engineering</i> , 2017, 34, 1260-1265.	1.2	31
112	Diffusion barrier coating using a newly developed blowing coating method for a thermally stable Pd membrane deposited on porous stainless-steel support. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 12310-12319.	3.8	22
113	Integrated Bi ₂ O ₃ nanostructure modified with Au nanoparticles for enhanced photocatalytic activity under visible light irradiation. <i>Progress in Natural Science: Materials International</i> , 2017, 27, 289-296.	1.8	39
114	Sorption enhanced catalytic CF ₄ hydrolysis with a three-stage catalyst-adsorbent reactor. <i>Frontiers of Chemical Science and Engineering</i> , 2017, 11, 537-544.	2.3	19
115	Platinum single atoms dispersed on carbon nanotubes as reusable catalyst for Suzuki coupling reaction. <i>Journal of Catalysis</i> , 2017, 352, 388-393.	3.1	46
116	Low permeable composite membrane based on sulfonated poly(phenylene oxide) (sPPO) and silica for vanadium redox flow battery. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 19035-19043.	3.8	36
117	Parametric studies for CO ₂ reforming of methane in a membrane reactor as a new CO ₂ utilization process. <i>Korean Journal of Chemical Engineering</i> , 2017, 34, 199-205.	1.2	15
118	Experimental and simulation studies for reaction enhancement of catalytic CF ₄ hydrolysis by consecutive HF removal using a multi-stage catalyst-adsorbent reactor. , 2017, 7, 1141-1149.		5
119	Solutions of Navier-Stokes Equation with Coriolis Force. <i>Advances in Mathematical Physics</i> , 2017, 2017, 1-9.	0.4	6
120	Economic evaluation with uncertainty analysis using a Monte-Carlo simulation method for hydrogen production from high pressure PEM water electrolysis in Korea. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 24612-24619.	3.8	39
121	Steam Reforming of Hydrothermal Liquefaction Liquid from Macro Algae over Ni-K ₂ Ti _x O _y Catalysts. <i>Clean Technology</i> , 2017, 23, 104-112.	0.1	5
122	Effects of transition metal doping in Pt/M-TiO ₂ (M=V, Cr, and Nb) on oxygen reduction reaction activity. <i>Journal of Power Sources</i> , 2016, 320, 188-195.	4.0	65
123	Process simulation and economic analysis of reactor systems for perfluorinated compounds abatement without HF effluent. <i>Frontiers of Chemical Science and Engineering</i> , 2016, 10, 526-533.	2.3	9
124	Numerical modeling studies for a methane dry reforming in a membrane reactor. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 34, 1251-1261.	2.1	23
125	Au Nanoparticles Supported Nanoporous ZnO Sphere for Enhanced Photocatalytic Activity Under UV-Light Irradiation. <i>Journal of Cluster Science</i> , 2016, 27, 1159-1170.	1.7	5
126	Comparative studies for the performance of a natural gas steam reforming in a membrane reactor. <i>Journal of the Korean Institute of Gas</i> , 2016, 20, 95-101.	0.1	2

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127	Hydrogen Production by Steam Reforming of Aqueous Bio-Oil from Marine Algae. Korean Chemical Engineering Research, 2016, 54, 94-100.	0.2	3
128	Enhanced Oxygen Reduction Reaction Activity Due to Electronic Effects between Ag and Mn ₃ O ₄ in Alkaline Media. ACS Catalysis, 2015, 5, 3995-4002.	5.5	115
129	Hydrogen selectivity and permeance effect on the water gas shift reaction (WGS) in a membrane reactor. Korean Journal of Chemical Engineering, 2015, 32, 1522-1527.	1.2	22
130	Catalytic activity and characterizations of Ni/K ₂ TiO ₂ -Al ₂ O ₃ catalyst for steam methane reforming. International Journal of Hydrogen Energy, 2014, 39, 17645-17655.	3.8	30
131	Feasibility Study of Employing a Catalytic Membrane Reactor for a Pressurized CO ₂ and Purified H ₂ Production in a Water Gas Shift Reaction. Clean Technology, 2014, 20, 425-432.	0.1	1
132	Performance Analysis of Water Gas Shift Reaction in a Membrane Reactor. Applied Chemistry for Engineering, 2014, 25, 204-208.	0.2	0
133	Ethanol Steam Reforming Reaction for a Clean Hydrogen Production and its Application in a Membrane Reactor. Clean Technology, 2013, 19, 379-387.	0.1	1
134	Studies of the effect of pressure and hydrogen permeance on the ethanol steam reforming reaction with palladium- and silica-based membranes. Journal of Membrane Science, 2012, 396, 119-127.	4.1	55
135	Experimental and kinetic studies of the ethanol steam reforming reaction equipped with ultrathin Pd and Pd-Cu membranes for improved conversion and hydrogen yield. Journal of Membrane Science, 2012, 409-410, 222-231.	4.1	36
136	Hydrogen selective thin palladium-copper composite membranes on alumina supports. Journal of Membrane Science, 2011, 378, 179-185.	4.1	24
137	Reaction of primary and secondary products in a membrane reactor: Studies of ethanol steam reforming with a silica-alumina composite membrane. Journal of Membrane Science, 2010, 351, 149-159.	4.1	45
138	An operability level coefficient (OLC) as a useful tool for correlating the performance of membrane reactors. Chemical Engineering Journal, 2009, 151, 351-358.	6.6	37
139	Efficient solid reducing agent CaO/SiO ₂ hybrid composite for hydrogen fluoride elimination. Advanced Composite Materials, 0, , 1-13.	1.0	1
140	Debye shielding of an electron in various plasma distributions. Journal of the Korean Physical Society, 0, , 1.	0.3	0
141	What is the best scenario to utilize landfill gas? Quantitative and qualitative approaches for technical, economic, and environmental feasibility. Green Chemistry, 0, , .	4.6	2