

Boreum Lee

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,429
citations

279798

23
h-index

345221

36
g-index

50
all docs

50
docs citations

50
times ranked

1092
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	7.1	134
2	Unveiling Electrodeâ€“Electrolyte Design-Based NO Reduction for NH ₃ Synthesis. <i>ACS Energy Letters</i> , 2020, 5, 3647-3656.	17.4	97
3	Economic feasibility studies of high pressure PEM water electrolysis for distributed H2 refueling stations. <i>Energy Conversion and Management</i> , 2018, 162, 139-144.	9.2	74
4	Preliminary techno-economic analysis of biodiesel production over solid-biochar. <i>Bioresource Technology</i> , 2020, 306, 123086.	9.6	71
5	Renewable methanol synthesis from renewable H2 and captured CO2: How can power-to-liquid technology be economically feasible?. <i>Applied Energy</i> , 2020, 279, 115827.	10.1	58
6	Direct propylene epoxidation with oxygen using a photo-electro-heterogeneous catalytic system. <i>Nature Catalysis</i> , 2022, 5, 37-44.	34.4	58
7	Sustainability-inspired upcycling of waste polyethylene terephthalate plastic into porous carbon for CO ₂ capture. <i>Green Chemistry</i> , 2022, 24, 1494-1504.	9.0	51
8	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.	7.1	49
9	Assessment of the economic potential: CO-free hydrogen production from renewables via ammonia decomposition for small-sized H2 refueling stations. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109262.	16.4	49
10	Integrative techno-economic and environmental assessment for green H2 production by alkaline water electrolysis based on experimental data. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106349.	6.7	40
11	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.	7.1	39
12	Steam reforming of methanol for ultra-pure H2 production in a membrane reactor: Techno-economic analysis. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2330-2339.	7.1	38
13	Techno-economic and environmental assessment of methanol steam reforming for H2 production at various scales. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 24146-24158.	7.1	38
14	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.	9.2	38
15	An efficient process for sustainable and scalable hydrogen production from green ammonia. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111562.	16.4	38
16	Integrated techno-economic analysis under uncertainty of glycerol steam reforming for H2 production at distributed H2 refueling stations. <i>Energy Conversion and Management</i> , 2019, 180, 250-257.	9.2	36
17	Carbon-neutral methanol synthesis as carbon dioxide utilization at different scales: Economic and environmental perspectives. <i>Energy Conversion and Management</i> , 2022, 252, 115119.	9.2	31
18	Technical and economic feasibility under uncertainty for methane dry reforming of coke oven gas as simultaneous H2 production and CO2 utilization. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 133, 110056.	16.4	29

#	ARTICLE	IF	CITATIONS
19	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.	8.1	27
20	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.	7.1	27
21	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.	4.9	25
22	Techno-economic assessment of conventional and direct-transesterification processes for microalgal biomass to biodiesel conversion. <i>Bioresource Technology</i> , 2019, 294, 122173.	9.6	25
23	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.	12.7	25
24	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.	9.2	24
25	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.	4.4	23
26	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.	9.3	20
27	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.	4.9	20
28	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.	4.4	19
29	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.	4.5	17
30	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.	7.1	16
31	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.	6.7	16
32	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.	9.0	16
33	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.	2.7	15
34	Comparative techno-economic analysis for steam methane reforming in a sorption-enhanced membrane reactor: Simultaneous H ₂ production and CO ₂ capture. <i>Chemical Engineering Research and Design</i> , 2021, 171, 383-394.	5.6	15
35	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.	6.7	15
36	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.	8.8	12

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37	Techno-economic analysis of H ₂ energy storage system based on renewable energy certificate. Renewable Energy, 2021, 167, 91-98.	8.9	11
38	What is the best green propylene production pathway?: technical, economic, and environmental assessment. Green Chemistry, 2021, 23, 7635-7645.	9.0	11
39	Integrative Technical, Economic, and Environmental Feasibility Analysis for Ethane Steam Reforming in a Membrane Reactor for H ₂ Production. ACS Sustainable Chemistry and Engineering, 2020, 8, 7011-7019.	6.7	10
40	Projected cost analysis of hybrid methanol production from tri-reforming of methane integrated with various water electrolysis systems: Technical and economic assessment. Renewable and Sustainable Energy Reviews, 2022, 155, 111876.	16.4	10
41	Process simulation and economic analysis of reactor systems for perfluorinated compounds abatement without HF effluent. Frontiers of Chemical Science and Engineering, 2016, 10, 526-533.	4.4	9
42	Preliminary techno-economic analysis of a multi-bed series reactor as a simultaneous CF ₄ abatement and utilization process. , 2017, 7, 542-549.		9
43	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. Energy Science and Engineering, 2018, 6, 73-82.	4.0	8
44	Sustainable and carbon-neutral green diesel synthesis with thermochemical and electrochemical approach: Techno-economic and environmental assessments. Energy Conversion and Management, 2022, 254, 115242.	9.2	7
45	Impact of voltage degradation in water electrolyzers on sustainability of synthetic natural gas production: Energy, economic, and environmental analysis. Energy Conversion and Management, 2021, 245, 114516.	9.2	6
46	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
47	Techno-economic analysis of a biological desulfurization process for a landfill gas in Korea. Separation Science and Technology, 2018, 53, 2769-2781.	2.5	5
48	Deterministic and stochastic economic analysis based on historical natural gas and CO ₂ allowance prices for steam reforming of methanol. Energy Conversion and Management, 2019, 193, 140-148.	9.2	5
49	Techno-economic analysis of livestock urine and manure as a microalgal growth medium. Waste Management, 2021, 135, 276-286.	7.4	5
50	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. Energy Conversion and Management, 2021, 247, 114704.	9.2	3