

# 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	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
2	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.	16.4	10
3	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
4	Sustainability-inspired upcycling of waste polyethylene terephthalate plastic into porous carbon for CO <sub>2</sub> capture. <i>Green Chemistry</i> , 2022, 24, 1494-1504.	9.0	51
5	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.	9.2	7
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	Techno-economic analysis of H <sub>2</sub> energy storage system based on renewable energy certificate. <i>Renewable Energy</i> , 2021, 167, 91-98.	8.9	11
8	What is the best green propylene production pathway?: technical, economic, and environmental assessment. <i>Green Chemistry</i> , 2021, 23, 7635-7645.	9.0	11
9	Comparative techno-economic analysis for steam methane reforming in a sorption-enhanced membrane reactor: Simultaneous H <sub>2</sub> production and CO <sub>2</sub> capture. <i>Chemical Engineering Research and Design</i> , 2021, 171, 383-394.	5.6	15
10	Integrative techno-economic and environmental assessment for green H <sub>2</sub> production by alkaline water electrolysis based on experimental data. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106349.	6.7	40
11	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.	9.2	6
12	H <sub>2</sub> 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.	9.2	3
13	Techno-economic analysis of livestock urine and manure as a microalgal growth medium. <i>Waste Management</i> , 2021, 135, 276-286.	7.4	5
14	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
15	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
16	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
17	Comprehensive assessment of CO <sub>2</sub> methanation: which H <sub>2</sub> 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
18	Techno-economic and environmental assessment of methanol steam reforming for H <sub>2</sub> production at various scales. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 24146-24158.	7.1	38

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19	Technical and economic feasibility under uncertainty for methane dry reforming of coke oven gas as simultaneous H <sub>2</sub> production and CO <sub>2</sub> utilization. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 133, 110056.	16.4	29
20	Renewable methanol synthesis from renewable H <sub>2</sub> and captured CO <sub>2</sub> : How can power-to-liquid technology be economically feasible?. <i>Applied Energy</i> , 2020, 279, 115827.	10.1	58
21	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
22	Unveiling Electrodeâ€“Electrolyte Design-Based NO Reduction for NH <sub>3</sub> Synthesis. <i>ACS Energy Letters</i> , 2020, 5, 3647-3656.	17.4	97
23	Preliminary techno-economic analysis of biodiesel production over solid-biochar. <i>Bioresource Technology</i> , 2020, 306, 123086.	9.6	71
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	Integrative Technical, Economic, and Environmental Feasibility Analysis for Ethane Steam Reforming in a Membrane Reactor for H <sub>2</sub> Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7011-7019.	6.7	10
26	Stochastic techno-economic analysis of H <sub>2</sub> production from power-to-gas using a high-pressure PEM water electrolyzer for a small-scale H <sub>2</sub> fueling station. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2521-2529.	4.9	25
27	Assessment of the economic potential: CO-free hydrogen production from renewables via ammonia decomposition for small-sized H <sub>2</sub> refueling stations. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109262.	16.4	49
28	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
29	Costâ€“competitive methane steam reforming in a membrane reactor for H <sub>2</sub> production: Technical and economic evaluation with a window of a H <sub>2</sub> selectivity. <i>International Journal of Energy Research</i> , 2019, 43, 1468-1478.	4.5	17
30	Quantification of economic uncertainty for synthetic natural gas production in a H <sub>2</sub> O permeable membrane reactor as simultaneous power-to-gas and CO <sub>2</sub> utilization technologies. <i>Energy</i> , 2019, 182, 1058-1068.	8.8	12
31	Projected economic outlook and scenario analysis for H <sub>2</sub> 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
32	Stochastic techno-economic analysis of power-to-gas technology for synthetic natural gas production based on renewable H <sub>2</sub> cost and CO <sub>2</sub> tax credit. <i>Journal of Energy Storage</i> , 2019, 24, 100791.	8.1	27
33	Deterministic and stochastic economic analysis based on historical natural gas and CO <sub>2</sub> allowance prices for steam reforming of methanol. <i>Energy Conversion and Management</i> , 2019, 193, 140-148.	9.2	5
34	Steam reforming of methanol for ultra-pure H <sub>2</sub> production in a membrane reactor: Techno-economic analysis. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2330-2339.	7.1	38
35	Integrated techno-economic analysis under uncertainty of glycerol steam reforming for H <sub>2</sub> production at distributed H <sub>2</sub> refueling stations. <i>Energy Conversion and Management</i> , 2019, 180, 250-257.	9.2	36
36	CO <sub>2</sub> reforming of methane for H <sub>2</sub> production in a membrane reactor as CO <sub>2</sub> utilization: Computational fluid dynamics studies with a reactor geometry. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2298-2311.	7.1	27

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37	Conceptual design of a new SF <sub>6</sub> 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
38	Economic feasibility studies of high pressure PEM water electrolysis for distributed H <sub>2</sub> refueling stations. Energy Conversion and Management, 2018, 162, 139-144.	9.2	74
39	Hydrogen production by steam methane reforming in a membrane reactor equipped with a Pd composite membrane deposited on a porous stainless steel. International Journal of Hydrogen Energy, 2018, 43, 7684-7692.	7.1	49
40	Techno-economic analysis: Ethane steam reforming in a membrane reactor with H <sub>2</sub> selectivity effect and profitability analysis. International Journal of Hydrogen Energy, 2018, 43, 7693-7702.	7.1	16
41	Techno-economic analysis for CO <sub>2</sub> reforming of a medium-grade landfill gas in a membrane reactor for H <sub>2</sub> production. Journal of Cleaner Production, 2018, 172, 2585-2593.	9.3	20
42	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
43	Preliminary techno-economic analysis of a multi-bed series reactor as a simultaneous CF <sub>4</sub> abatement and utilization process. , 2017, 7, 542-549.		9
44	Economic evaluation with sensitivity and profitability analysis for hydrogen production from water electrolysis in Korea. International Journal of Hydrogen Energy, 2017, 42, 6462-6471.	7.1	134
45	Sorption enhanced catalytic CF <sub>4</sub> hydrolysis with a three-stage catalyst-adsorbent reactor. Frontiers of Chemical Science and Engineering, 2017, 11, 537-544.	4.4	19
46	Parametric studies for CO <sub>2</sub> reforming of methane in a membrane reactor as a new CO <sub>2</sub> utilization process. Korean Journal of Chemical Engineering, 2017, 34, 199-205.	2.7	15
47	Experimental and simulation studies for reaction enhancement of catalytic CF <sub>4</sub> hydrolysis by consecutive HF removal using a multi-stage catalyst-adsorbent reactor. , 2017, 7, 1141-1149.		5
48	Economic evaluation with uncertainty analysis using a Monte-Carlo simulation method for hydrogen production from high pressure PEM water electrolysis in Korea. International Journal of Hydrogen Energy, 2017, 42, 24612-24619.	7.1	39
49	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
50	Numerical modeling studies for a methane dry reforming in a membrane reactor. Journal of Natural Gas Science and Engineering, 2016, 34, 1251-1261.	4.4	23