Mijndert Van der Spek

List of Publications by Year
in descending order

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28	1,106	430874 18	526287 27
papers	citations	h-index	g-index

32	32	32	728
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydrogen production from natural gas and biomethane with carbon capture and storage â€“ A techno-environmental analysis. Sustainable Energy and Fuels, 2020, 4, 2967-2986.	4.9	164
2	Perspective on the hydrogen economy as a pathway to reach net-zero CO₂emissions in Europe. Energy and Environmental Science, 2022, 15, 1034-1077.	30.8	132
3	On the climate impacts of blue hydrogen production. Sustainable Energy and Fuels, 2021, 6, 66-75.	4.9	126
4	Prospective techno-economic and environmental assessment of carbon capture at a refinery and CO2 utilisation in polyol synthesis. Journal of CO2 Utilization, 2017, 21, 405-422.	6.8	82
5	Best practices and recent advances in CCS cost engineering and economic analysis. International Journal of Greenhouse Gas Control, 2019, 83, 91-104.	4.6	71
6	Unravelling uncertainty and variability in early stage techno-economic assessments of carbon capture technologies. International Journal of Greenhouse Gas Control, 2017, 56, 221-236.	4.6	56
7	Challenges and uncertainties of ex ante techno-economic analysis of low TRL CO2 capture technology: Lessons from a case study of an NGCC with exhaust gas recycle and electric swing adsorption. Applied Energy, 2017, 208, 920-934.	10.1	51
8	Uncertainty analysis in the techno-economic assessment of CO2 capture and storage technologies. Critical review and guidelines for use. International Journal of Greenhouse Gas Control, 2020, 100, 103113.	4.6	42
9	The impact of binary waterâ€“CO₂ isotherm models on the optimal performance of sorbent-based direct air capture processes. Energy and Environmental Science, 2021, 14, 5377-5394.	30.8	40
10	Analysis of direct capture of $${hbox {CO}}_{2}$$ from ambient air via steam-assisted temperatureâ€“vacuum swing adsorption. Adsorption, 2020, 26, 1183-1197.	3.0	38
11	Towards a business case for CO2 mineralisation in the cement industry. Communications Earth & Environment, 2022, 3, .	6.8	32
12	Feasibility Assessment of CO2 Capture Retrofitted to an Existing Cement Plant: Post-combustion vs. Oxy-fuel Combustion Technology. Energy Procedia, 2017, 114, 6141-6149.	1.8	29
13	Model development and process simulation of postcombustion carbon capture technology with aqueous AMP/PZ solvent. International Journal of Greenhouse Gas Control, 2016, 47, 176-199.	4.6	27
14	Optimal design of an MDEA <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e947" altimg="si92.svg"><mml:msub><mml:mrow><mml:mi mathvariant="normal">CO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math> capture plant for low-carbon hydrogen production â€” A rigorous process optimization approach. Separation and Purification Technology, 2021, 279, 119715.	7.9	25
15	110th Anniversary: Evaluation of CO₂-Based and CO₂-Free Synthetic Fuel Systems Using a Net-Zero-CO₂-Emission Framework. Industrial & Engineering Chemistry Research, 2019, 58, 19958-19972.	3.7	23
16	Synergistic material and process development: Application of a metal-organic framework, Cu-TDPAT, in single-cycle hydrogen purification and CO2 capture from synthesis gas. Chemical Engineering Journal, 2021, 414, 128778.	12.7	23
17	Improving uncertainty evaluation of process models by using pedigree analysis. A case study on CO2 capture with monoethanolamine. Computers and Chemical Engineering, 2016, 85, 1-15.	3.8	22
18	New indicator for comparing the energy performance of CO 2 utilization concepts. Journal of CO2 Utilization, 2017, 22, 278-288.	6.8	22

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19	ALIGN-CCUS: Results of the 18-month test with aqueous AMP/PZ solvent at the pilot plant at Niederaussem â€“ solvent management, emissions and dynamic behavior. International Journal of Greenhouse Gas Control, 2021, 109, 103381.	4.6	22
20	Techno-economic Comparison of Combined Cycle Gas Turbines with Advanced Membrane Configuration and Monoethanolamine Solvent at Part Load Conditions. Energy & Fuels, 2018, 32, 625-645.	5.1	17
21	What Does It Take to Go Net-Zero-CO2? A Life Cycle Assessment on Long-Term Storage of Intermittent Renewables With Chemical Energy Carriers. Frontiers in Energy Research, 2020, 8, .	2.3	13
22	Comparative Environmental Life Cycle Assessment of Oxyfuel and Post-combustion Capture with MEA and AMP/PZ - Case Studies from the EDDiCCUT Project. Energy Procedia, 2017, 114, 6604-6611.	1.8	12
23	Techno-economic Performance of State-of-the-Art Oxyfuel Technology for Low-CO2 Coal-fired Electricity Production. Energy Procedia, 2017, 114, 6432-6439.	1.8	10
24	A Structured Approach for Selecting Carbon Capture Process Models. A Case Study on Monoethanolamine. Energy Procedia, 2014, 63, 1287-1295.	1.8	8
25	Environmental Due Diligence of CO2 Capture and Utilization Technologies â€“ Framework and application. Energy Procedia, 2014, 63, 7429-7436.	1.8	7
26	New Approach to Techno-economic Assessment of Power Plants with Carbon Capture and Storage: The Inclusion of Realistic Dispatch Profiles To Calculate Techno-economics of Part Load Operations. Energy & Fuels, 2017, 31, 1047-1049.	5.1	7
27	Analysis of flexible operation of CO2 capture plants: Predicting solvent emissions from conventional and advanced amine systems. SSRN Electronic Journal, 0, , .	0.4	4
28	Toward Improved Guidelines for Uncertainty Analysis of Carbon Capture and Storage Techno-economic Studies. SSRN Electronic Journal, 0, , .	0.4	0