

# Mijndert Van der Spek

## List of Publications by Year in descending order

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Version: 2024-02-01

28  
papers

1,106  
citations

430874

18  
h-index

526287

27  
g-index

32  
all docs

32  
docs citations

32  
times ranked

728  
citing authors

#	ARTICLE	IF	CITATIONS
1	Perspective on the hydrogen economy as a pathway to reach net-zero CO <sub>2</sub> emissions in Europe. <i>Energy and Environmental Science</i> , 2022, 15, 1034-1077.	30.8	132
2	Towards a business case for CO <sub>2</sub> mineralisation in the cement industry. <i>Communications Earth &amp; Environment</i> , 2022, 3, .	6.8	32
3	The impact of binary water-CO <sub>2</sub> isotherm models on the optimal performance of sorbent-based direct air capture processes. <i>Energy and Environmental Science</i> , 2021, 14, 5377-5394.	30.8	40
4	Synergistic material and process development: Application of a metal-organic framework, Cu-TDPAT, in single-cycle hydrogen purification and CO <sub>2</sub> capture from synthesis gas. <i>Chemical Engineering Journal</i> , 2021, 414, 128778.	12.7	23
5	ALIGN-CCUS: Results of the 18-month test with aqueous AMP/PZ solvent at the pilot plant at Niederaussem – solvent management, emissions and dynamic behavior. <i>International Journal of Greenhouse Gas Control</i> , 2021, 109, 103381.	4.6	22
6	Optimal design of an MDEA CO <sub>2</sub> capture plant for low-carbon hydrogen production – A rigorous process optimization approach. <i>Separation and Purification Technology</i> , 2021, 279, 119715.	7.9	21
7	On the climate impacts of blue hydrogen production. <i>Sustainable Energy and Fuels</i> , 2021, 6, 66-75.	4.9	126
8	Uncertainty analysis in the techno-economic assessment of CO <sub>2</sub> capture and storage technologies. Critical review and guidelines for use. <i>International Journal of Greenhouse Gas Control</i> , 2020, 100, 103113.	4.6	42
9	Analysis of direct capture of CO <sub>2</sub> from ambient air via steam-assisted temperature-vacuum swing adsorption. <i>Adsorption</i> , 2020, 26, 1183-1197.	3.0	38
10	Hydrogen production from natural gas and biomethane with carbon capture and storage – A techno-environmental analysis. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2967-2986.	4.9	164
11	What Does It Take to Go Net-Zero-CO <sub>2</sub> ? A Life Cycle Assessment on Long-Term Storage of Intermittent Renewables With Chemical Energy Carriers. <i>Frontiers in Energy Research</i> , 2020, 8, .	2.3	13
12	110th Anniversary: Evaluation of CO <sub>2</sub> -Based and CO <sub>2</sub> -Free Synthetic Fuel Systems Using a Net-Zero-CO <sub>2</sub> -Emission Framework. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 19958-19972.	3.7	23
13	Best practices and recent advances in CCS cost engineering and economic analysis. <i>International Journal of Greenhouse Gas Control</i> , 2019, 83, 91-104.	4.6	71
14	Techno-economic Comparison of Combined Cycle Gas Turbines with Advanced Membrane Configuration and Monoethanolamine Solvent at Part Load Conditions. <i>Energy &amp; Fuels</i> , 2018, 32, 625-645.	5.1	17
15	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. <i>Energy &amp; Fuels</i> , 2017, 31, 1047-1049.	5.1	7
16	Unravelling uncertainty and variability in early stage techno-economic assessments of carbon capture technologies. <i>International Journal of Greenhouse Gas Control</i> , 2017, 56, 221-236.	4.6	56
17	New indicator for comparing the energy performance of CO <sub>2</sub> utilization concepts. <i>Journal of CO<sub>2</sub> Utilization</i> , 2017, 22, 278-288.	6.8	22
18	Challenges and uncertainties of ex ante techno-economic analysis of low TRL CO <sub>2</sub> capture technology: Lessons from a case study of an NGCC with exhaust gas recycle and electric swing adsorption. <i>Applied Energy</i> , 2017, 208, 920-934.	10.1	51

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19	Feasibility Assessment of CO <sub>2</sub> Capture Retrofitted to an Existing Cement Plant: Post-combustion vs. Oxy-fuel Combustion Technology. <i>Energy Procedia</i> , 2017, 114, 6141-6149.	1.8	29
20	Comparative Environmental Life Cycle Assessment of Oxyfuel and Post-combustion Capture with MEA and AMP/PZ - Case Studies from the EDDiCCUT Project. <i>Energy Procedia</i> , 2017, 114, 6604-6611.	1.8	12
21	Prospective techno-economic and environmental assessment of carbon capture at a refinery and CO <sub>2</sub> utilisation in polyol synthesis. <i>Journal of CO<sub>2</sub> Utilization</i> , 2017, 21, 405-422.	6.8	82
22	Techno-economic Performance of State-of-the-Art Oxyfuel Technology for Low-CO <sub>2</sub> Coal-fired Electricity Production. <i>Energy Procedia</i> , 2017, 114, 6432-6439.	1.8	10
23	Improving uncertainty evaluation of process models by using pedigree analysis. A case study on CO <sub>2</sub> capture with monoethanolamine. <i>Computers and Chemical Engineering</i> , 2016, 85, 1-15.	3.8	22
24	Model development and process simulation of postcombustion carbon capture technology with aqueous AMP/PZ solvent. <i>International Journal of Greenhouse Gas Control</i> , 2016, 47, 176-199.	4.6	27
25	Environmental Due Diligence of CO <sub>2</sub> Capture and Utilization Technologies – Framework and application. <i>Energy Procedia</i> , 2014, 63, 7429-7436.	1.8	7
26	A Structured Approach for Selecting Carbon Capture Process Models. A Case Study on Monoethanolamine. <i>Energy Procedia</i> , 2014, 63, 1287-1295.	1.8	8
27	Analysis of flexible operation of CO <sub>2</sub> capture plants: Predicting solvent emissions from conventional and advanced amine systems. <i>SSRN Electronic Journal</i> , 0, , .	0.4	4
28	Toward Improved Guidelines for Uncertainty Analysis of Carbon Capture and Storage Techno-economic Studies. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0