

Cleaner production of cleaner fuels: wind-to-wheel â€“
CO₂-based oxymethylene ether as a drop-i

Energy and Environmental Science

11, 331-343

DOI: 10.1039/c7ee01657c

Citation Report

#	ARTICLE	IF	CITATIONS
1	Sustainable Conversion of Carbon Dioxide: An Integrated Review of Catalysis and Life Cycle Assessment. <i>Chemical Reviews</i> , 2018, 118, 434-504.	47.7	1,571
2	Gas-phase synthesis of oxymethylene ethers over Si-rich zeolites. <i>Green Chemistry</i> , 2018, 20, 4719-4728.	9.0	20
3	Recent Advances on CO ₂ Utilization as C1 Building Block in C-N and C-O Bond Formation. <i>Topics in Organometallic Chemistry</i> , 2018, , 39-76.	0.7	12
4	Facile growth of high aspect ratio c-axis GaN nanowires and their application as flexible p-n NiO/GaN piezoelectric nanogenerators. <i>Acta Materialia</i> , 2018, 161, 237-245.	7.9	29
5	Comparison of light-duty transportation fuels produced from renewable hydrogen and green carbon dioxide. <i>Applied Energy</i> , 2018, 231, 757-767.	10.1	79
6	Power-to-OME Processes for the Production of Oxymethylene Dimethyl Ether from Hydrogen and Carbon Dioxide. <i>Chemie-Ingenieur-Technik</i> , 2018, 90, 1155-1155.	0.8	1
7	Carbon2Polymer – Conceptual Design of a CO ₂ -Based Process for the Production of Isocyanates. <i>Chemie-Ingenieur-Technik</i> , 2018, 90, 1497-1503.	0.8	14
8	Recent Progress in the Production, Application and Evaluation of Oxymethylene Ethers. <i>Chemie-Ingenieur-Technik</i> , 2018, 90, 1520-1528.	0.8	59
9	Potential of e-Fischer Tropsch diesel and oxymethyl-ether (OMEx) as fuels for the dual-mode dual-fuel concept. <i>Applied Energy</i> , 2019, 253, 113622.	10.1	35
10	Solvent Applications of Short-Chain Oxymethylene Dimethyl Ether Oligomers. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14834-14840.	6.7	15
11	Electrochemical conversion of a bio-derivable hydroxy acid to a drop-in oxygenate diesel fuel. <i>Energy and Environmental Science</i> , 2019, 12, 2406-2411.	30.8	45
12	Flexibility in the Graphene Sheet: The Influence on Gas Adsorption from Molecular Dynamics Studies. <i>Journal of Physical Chemistry C</i> , 2019, 123, 28035-28047.	3.1	14
13	Utilising carbon dioxide for transport fuels: The economic and environmental sustainability of different Fischer-Tropsch process designs. <i>Applied Energy</i> , 2019, 253, 113560.	10.1	34
14	The FluxMax approach for simultaneous process synthesis and heat integration: Production of hydrogen cyanide. <i>AIChE Journal</i> , 2019, 65, e16554.	3.6	15
15	On the energetic efficiency of producing polyoxymethylene dimethyl ethers from CO ₂ using electrical energy. <i>Energy and Environmental Science</i> , 2019, 12, 1019-1034.	30.8	58
16	Environmental impacts of power-to-X systems - A review of technological and methodological choices in Life Cycle Assessments. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 112, 865-879.	16.4	112
17	Ruthenium-Catalyzed Synthesis of Cyclic and Linear Acetals by the Combined Utilization of CO ₂ , H ₂ , and Biomass Derived Diols. <i>Chemistry - A European Journal</i> , 2019, 25, 11412-11415.	3.3	21
18	Consequential life cycle assessment of carbon capture and utilization technologies within the chemical industry. <i>Energy and Environmental Science</i> , 2019, 12, 2253-2263.	30.8	99

#	ARTICLE	IF	CITATIONS
19	Climate change mitigation potential of carbon capture and utilization in the chemical industry. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11187-11194.	7.1	384
20	Conceptual design of production of eco-friendly polyoxymethylene dimethyl ethers catalyzed by acid functionalized ionic liquids. Chemical Engineering Science, 2019, 206, 10-21.	3.8	17
21	Synthetic Fuels. , 2019, , 191-223.		0
22	Industrial Approach for Direct Electrochemical CO ₂ Reduction in Aqueous Electrolytes. , 2019, , 224-250.		1
23	What fuels the adoption of alternative fuels? Examining preferences of German car drivers for fuel innovations. Applied Energy, 2019, 249, 222-236.	10.1	38
24	A self-powered flexibly-arranged gas monitoring system with evaporating rainwater as fuel for building atmosphere big data. Nano Energy, 2019, 60, 52-60.	16.0	68
25	Production of Oxymethylene Dimethyl Ethers from Hydrogen and Carbon Dioxide—Part I: Modeling and Analysis for OME ₁ . Industrial & Engineering Chemistry Research, 2019, 58, 4881-4889.	3.7	48
26	Detailed kinetic modeling of dimethoxymethane. Part II: Experimental and theoretical study of the kinetics and reaction mechanism. Combustion and Flame, 2019, 205, 522-533.	5.2	76
27	Potential of long-chain oxymethylene ether and oxymethylene ether-diesel blends for ultra-low emission engines. Applied Energy, 2019, 239, 1242-1249.	10.1	98
28	Optimal operation of dynamic (energy) systems: When are quasi-steady models adequate?. Computers and Chemical Engineering, 2019, 124, 133-139.	3.8	21
29	Deterministic global flowsheet optimization: Between equation-oriented and sequential-modular methods. AIChE Journal, 2019, 65, 1022-1034.	3.6	25
30	Dimethoxymethane as a Cleaner Synthetic Fuel: Synthetic Methods, Catalysts, and Reaction Mechanism. ACS Catalysis, 2019, 9, 1298-1318.	11.2	82
31	Polyoxymethylene dimethyl ethers as clean diesel additives: Fuel freezing and prediction. Fuel, 2019, 237, 833-839.	6.4	27
32	NO Removal with Efficient Recovery of N ₂ O by Using Recyclable Fe ₃ O ₄ @EDTA@Fe(II) Complex: A Novel Approach toward Resource Recovery from Flue Gas. Environmental Science & Technology, 2019, 53, 1004-1013.	10.0	46
33	Selective Ruthenium-Catalyzed Transformation of Carbon Dioxide: An Alternative Approach toward Formaldehyde. Journal of the American Chemical Society, 2019, 141, 334-341.	13.7	57
34	Advances and challenges of life cycle assessment (LCA) of greenhouse gas removal technologies to fight climate changes. Journal of Cleaner Production, 2020, 244, 118896.	9.3	73
35	Optimising the biodiesel production process: Implementation of glycerol derivatives into biofuel formulations and their potential to form hydrofuels. Fuel, 2020, 264, 116695.	6.4	29
36	Auto-ignition of oxymethylene ethers (OMEn, n=2-4) as promising synthetic e-fuels from renewable electricity: shock tube experiments and automatic mechanism generation. Fuel, 2020, 264, 116711.	6.4	75

#	ARTICLE	IF	CITATIONS
37	Exploration of suitable injector configuration for dual-mode dual-fuel engine with diesel and OMEx as high reactivity fuels. <i>Fuel</i> , 2020, 280, 118670.	6.4	16
38	Material or fuel: comparative cradle-to-grave climate and material footprint analysis for the use of methanol from recycled CO ₂ . <i>Green Chemistry</i> , 2020, 22, 8423-8443.	9.0	12
39	Effective synthesis route of renewable nanoporous carbon adsorbent for high energy gas storage and CO ₂ /N ₂ selectivity. <i>Renewable Energy</i> , 2020, 161, 30-42.	8.9	41
40	The carbon footprint of the carbon feedstock CO ₂ . <i>Energy and Environmental Science</i> , 2020, 13, 2979-2992.	30.8	110
41	Do investments in flexibility enhance sustainability? A simulative study considering the German electricity sector. <i>AIChE Journal</i> , 2020, 66, e17010.	3.6	14
42	Chemische Batterien mit CO ₂ . <i>Angewandte Chemie</i> , 2020, , .	2.0	1
43	Novel Heterogeneous Catalysts for CO ₂ Hydrogenation to Liquid Fuels. <i>ACS Central Science</i> , 2020, 6, 1657-1670.	11.3	182
44	Gamma-radiated biochar carbon for improved supercapacitor performance. <i>RSC Advances</i> , 2020, 10, 29910-29917.	3.6	30
45	Chemical Batteries with CO ₂ . <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	23
46	Renewable OME from biomass and electricity – Evaluating carbon footprint and energy performance. <i>Energy Science and Engineering</i> , 2020, 8, 2587-2598.	4.0	13
47	OMEx-diesel blends as high reactivity fuel for ultra-low NO _x and soot emissions in the dual-mode dual-fuel combustion strategy. <i>Fuel</i> , 2020, 275, 117898.	6.4	33
48	Life cycle assessment of novel heat exchanger for dry cooling of power plants based on encapsulated phase change materials. <i>Applied Energy</i> , 2020, 271, 115227.	10.1	11
49	Clean and efficient dual-fuel combustion using OMEx as high reactivity fuel: Comparison to diesel-gasoline calibration. <i>Energy Conversion and Management</i> , 2020, 216, 112953.	9.2	30
50	Early-stage evaluation of emerging CO ₂ utilization technologies at low technology readiness levels. <i>Green Chemistry</i> , 2020, 22, 3842-3859.	9.0	71
51	Investigation of the Oxidative Degradation of the Synthetic Fuel Oxymethylene Dimethyl Ether. <i>Energy & Fuels</i> , 2020, 34, 3357-3366.	5.1	4
52	Overview of polyoxymethylene dimethyl ether additive as an eco-friendly fuel for an internal combustion engine: Current application and environmental impacts. <i>Science of the Total Environment</i> , 2020, 715, 136849.	8.0	68
53	Utilization of Formic Acid as C1 Building Block for the Ruthenium-Catalyzed Synthesis of Formaldehyde Surrogates. <i>ChemCatChem</i> , 2020, 12, 1944-1947.	3.7	10
54	A Guideline for Life Cycle Assessment of Carbon Capture and Utilization. <i>Frontiers in Energy Research</i> , 2020, 8, .	2.3	111

#	ARTICLE	IF	CITATIONS
55	Environmental impacts of CO ₂ -based chemical production: A systematic literature review and meta-analysis. Applied Energy, 2020, 263, 114599.	10.1	71
56	Power-to-X: Between Electricity Storage, e-Production, and Demand Side Management. Chemie-Ingenieur-Technik, 2020, 92, 74-84.	0.8	39
57	Challenges and Opportunities in the Production of Oxymethylene Dimethylether. Chemie-Ingenieur-Technik, 2020, 92, 116-124.	0.8	16
58	Optimal Municipal Energy System Design and Operation Using Cumulative Exergy Consumption Minimisation. Energies, 2020, 13, 182.	3.1	3
59	Carbon Supported Phosphoric Acid Catalysts for Gas-Phase Synthesis of Diesel Additives. Catalysis Letters, 2020, 150, 2951-2958.	2.6	7
60	Life cycle assessment of ultra-low treatment for steel industry sintering flue gas emissions. Science of the Total Environment, 2020, 725, 138292.	8.0	38
61	Hydrogen-efficient non-oxidative transformation of methanol into dimethoxymethane over a tailored bifunctional Cu catalyst. Sustainable Energy and Fuels, 2021, 5, 117-126.	4.9	11
62	Determining the laminar burning velocity of nitrogen diluted dimethoxymethane (<sc> OME) Tj ETQq1 1 0.784314 rgBT /Overlock 10 International Journal of Energy Research, 2021, 45, 2824-2836.	4.5	10
63	Oxymethylene ether " n-dodecane blend spray combustion: Experimental study and large-eddy simulations. Proceedings of the Combustion Institute, 2021, 38, 3417-3425.	3.9	16
64	Challenges for turbulent combustion. Proceedings of the Combustion Institute, 2021, 38, 121-155.	3.9	48
65	Porous crystalline frameworks for thermocatalytic CO ₂ reduction: an emerging paradigm. Energy and Environmental Science, 2021, 14, 320-352.	30.8	61
66	Comparing pathways for electricity-based production of dimethoxymethane as a sustainable fuel. Energy and Environmental Science, 2021, 14, 3686-3699.	30.8	15
67	Power-to-OME1 via Direct Oxidation of Methanol: Process Design and Global Flowsheet Optimization. Computer Aided Chemical Engineering, 2021, , 273-278.	0.5	1
68	Techno-economic and environmental assessment of BECCS in fuel generation for FT-fuel, bioSNG and OME<i>x</i>. Sustainable Energy and Fuels, 2021, 5, 3382-3402.	4.9	12
69	The environmental performance of a fossil-free ship propulsion system with onboard carbon capture " a life cycle assessment of the HyMethShip concept. Sustainable Energy and Fuels, 2021, 5, 2753-2770.	4.9	24
70	Renewable carbon feedstock for polymers: environmental benefits from synergistic use of biomass and CO ₂ . Faraday Discussions, 2021, 230, 227-246.	3.2	25
71	Selective catalytic synthesis of short chain oxymethylene ethers by a heteropoly acid " a reaction parameter and kinetic study. Catalysis Science and Technology, 2021, 11, 1974-1980.	4.1	4
72	Future Power Train Solutions for Long-Haul Trucks. Sustainability, 2021, 13, 2225.	3.2	14

#	ARTICLE	IF	CITATIONS
73	Side Products in the Water-Tolerant Synthesis of Poly(oxymethylene) Dimethyl Ethers: Formation Kinetics and Implications for Process Design. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 2418-2429.	3.7	20
74	Life-cycle assessment of an industrial direct air capture process based on temperatureâ€ vacuum swing adsorption. <i>Nature Energy</i> , 2021, 6, 203-213.	39.5	238
76	Life-Cycle Assessment of Sector-Coupled National Energy Systems: Environmental Impacts of Electricity, Heat, and Transportation in Germany Till 2050. <i>Frontiers in Energy Research</i> , 2021, 9, .	2.3	15
77	Synthetic Fuels Based on Dimethyl Ether as a Future Non-Fossil Fuel for Road Transport From Sustainable Feedstocks. <i>Frontiers in Energy Research</i> , 2021, 9, .	2.3	28
78	Sâ€PEEK as a Catalyst for Gas Phase OME Synthesis. <i>ChemCatChem</i> , 2021, 13, 2634-2640.	3.7	5
79	Unraveling the structure-activity relationships of Cu/H-BEA bifunctional catalyst for selective synthesis of dimethoxymethane by non-oxidative dehydrogenation of methanol. <i>Applied Catalysis B: Environmental</i> , 2021, 287, 119964.	20.2	10
80	A Study on Fundamental Combustion Properties of Oxymethylene Ether-2. <i>Journal of Engineering for Gas Turbines and Power</i> , 2022, 144, .	1.1	7
81	Life cycle greenhouse gas emissions of renewable gas technologies: A comparative review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 146, 111147.	16.4	33
82	Catalytic Reductive Alcohol Etherifications with Carbonylâ€Based Compounds or CO ₂ and Related Transformations for the Synthesis of Ether Derivatives. <i>ChemSusChem</i> , 2021, 14, 3744-3784.	6.8	18
84	CO ₂ Neutral Fuels in Series Engines - Demonstration of the Potential of OME with Regard to Efficiency and Ultra-Low Emissions. , 0, , .		3
85	Green hydrogen coupling with CO ₂ utilization of coal-to-methanol for high methanol productivity and low CO ₂ emission. <i>Energy</i> , 2021, 231, 120970.	8.8	38
86	Modeling and simulation of Power-to-X systems: A review. <i>Fuel</i> , 2021, 304, 121354.	6.4	55
87	Use of EGR e-pump for Dual-Mode Dual-Fuel engines in mild hybrid architectures. <i>Energy Conversion and Management</i> , 2021, 247, 114701.	9.2	3
88	Combustion system optimization for the integration of e-fuels (Oxymethylene Ether) in compression ignition engines. <i>Fuel</i> , 2021, 305, 121580.	6.4	16
89	Numerical modeling of single droplet flash boiling behavior of e-fuels considering internal and external vaporization. <i>Fuel</i> , 2022, 308, 121934.	6.4	9
90	Single- and mixed-metalâ€organic framework photocatalysts for carbon dioxide reduction. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 3178-3204.	6.0	41
91	Greener production of dimethyl carbonate by the Power-to-Fuel concept: a comparative techno-economic analysis. <i>Green Chemistry</i> , 2021, 23, 1734-1747.	9.0	31
92	Process modelling and life cycle assessment coupled with experimental work to shape the future sustainable production of chemicals and fuels. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 1179-1194.	3.7	34

#	ARTICLE	IF	CITATIONS
93	Economic and life-cycle assessment of OME ₅ as transport fuel: a comparison of production pathways. Sustainable Energy and Fuels, 2021, 5, 2504-2516.	4.9	15
94	Combustion in the future: The importance of chemistry. Proceedings of the Combustion Institute, 2021, 38, 1-56.	3.9	66
95	Die Rolle von Dimethylether (DME) als Schlüsselbaustein synthetischer Kraftstoffe aus erneuerbaren Rohstoffen. , 2019, , 532-561.		2
96	Chemisch-katalytische Konversion. , 2020, , 77-98.		3
97	Assessing public acceptance of the life cycle of CO ₂ -based fuels: Does information make the difference?. Energy Policy, 2020, 143, 111586.	8.8	25
98	Industrial carbon dioxide capture and utilization: state of the art and future challenges. Chemical Society Reviews, 2020, 49, 8584-8686.	38.1	610
99	Role and value of flexibility in facilitating cost-effective energy system decarbonisation. Progress in Energy, 2020, 2, 042001.	10.9	35
100	Risk Assessment Regarding Perceived Toxicity and Acceptance of Carbon Dioxide-Based Fuel by Laypeople for Its Use in Road Traffic and Aviation. Frontiers in Energy Research, 2020, 8, .	2.3	10
101	Towards a green industry through cleaner production development. Environmental Science and Pollution Research, 2022, 29, 349-370.	5.3	24
102	Carbon footprinting of carbon capture and -utilization technologies: discussion of the analysis of Carbon XPRIZE competition team finalists. Clean Energy, 2021, 5, 587-599.	3.2	2
103	CO ₂ capture activity of a novel CaO adsorbent stabilized with (ZrO ₂ +Al ₂ O ₃ +CeO ₂)-based additive under mild and realistic calcium looping conditions. Journal of CO ₂ Utilization, 2021, 53, 101747.	6.8	76
104	Methodical Selection of Sustainable Fuels for High Performance Racing Engines. , 0, , .		1
105	Methanol â€“ der Kraftstoff, der uns morgen antreibt. , 2019, , 480-531.		2
106	Processes for the production of OME fuels. Proceedings, 2020, , 191-203.	0.3	2
107	Transition Fuels and Environmental Problems. Annals of Chemical Science Research, 2020, 2, .	0.1	0
108	Operation of OME in a single cylinder research engine and a series engine - An Analysis of efficiency and ultralow emissions by an OME-specific application. Proceedings, 2021, , 521-533.	0.3	2
109	A detailed experimental and kinetic modeling study on pyrolysis and oxidation of oxymethylene ether-2 (OME-2). Combustion and Flame, 2022, 238, 111914.	5.2	18
110	Two Sides of the Same Coinâ€”Explaining the Acceptance of CO ₂ -Based Fuels for Aviation Using PLS-SEM by Considering the Production and Product Evaluation. Frontiers in Energy Research, 0, 9, .	2.3	6

#	ARTICLE	IF	CITATIONS
111	Continuous Synthesis of Oxymethylene Ether Fuels from Dimethyl Ether in a Heterogeneously Catalyzed Liquid Phase Process. <i>Chemie-Ingenieur-Technik</i> , 0, , .	0.8	11
112	A study on fundamental combustion properties of oxymethylene ether-1, the primary reference fuel 90, and their blend: Experiments and modeling. <i>Combustion and Flame</i> , 2022, 243, 111996.	5.2	5
113	Techno-economic assessment and carbon footprint of processes for the large-scale production of oxymethylene dimethyl ethers from carbon dioxide and hydrogen. <i>Sustainable Energy and Fuels</i> , 2022, 6, 528-549.	4.9	23
114	Dimethyl ether oxidation analyzed in a given flow reactor: Experimental and modeling uncertainties. <i>Combustion and Flame</i> , 2022, 240, 111998.	5.2	13
115	Blend for all or pure for few? Well-to-wheel life cycle assessment of blending electricity-based OME ₅ with fossil diesel. <i>Sustainable Energy and Fuels</i> , 2022, 6, 1959-1973.	4.9	10
116	The unimolecular decomposition of dimethoxymethane: channel switching as a function of temperature and pressure. <i>Faraday Discussions</i> , 0, , .	3.2	2
117	Mitigation Potentials of Power-to-X in 2050: An Innovative or Energy-Intensive Measure?. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
118	Limits to Paris compatibility of CO ₂ capture and utilization. <i>One Earth</i> , 2022, 5, 168-185.	6.8	86
119	An Overview of Promising Alternative Fuels for Road, Rail, Air, and Inland Waterway Transport in Germany. <i>Energies</i> , 2022, 15, 1443.	3.1	25
120	A Review on Environmental Efficiency Evaluation of New Energy Vehicles Using Life Cycle Analysis. <i>Sustainability</i> , 2022, 14, 3371.	3.2	25
121	Life cycle assessment of liquefied natural gas production from coke oven gas in China. <i>Journal of Cleaner Production</i> , 2021, 329, 129609.	9.3	14
122	Global flowsheet optimization for reductive dimethoxymethane production using data-driven thermodynamic models. <i>Computers and Chemical Engineering</i> , 2022, 162, 107806.	3.8	3
127	Comparing Microwave and Classical Synthesis of Oxymethylene Dimethyl Ethers. <i>Macromolecular Chemistry and Physics</i> , 0, , 2200020.	2.2	2
128	Heat release peculiarities of polyoxymethylene dimethyl ether 1 – Part I: Effect of initial thermochemical conditions. <i>Fuel</i> , 2022, 321, 124007.	6.4	2
129	Effect of oxymethylene ether-2-3-4 (OME2-4) on soot particle formation and chemical features. <i>Fuel</i> , 2022, 324, 124617.	6.4	10
130	Synergistic Effects in the Activity of Nano-Transition-Metal Clusters Pt ₁₂ M (M = Ir, Ru or Rh) for NO Dissociation. <i>ChemPhysChem</i> , 0, , .	2.1	0
131	Review of electrofuel feasibility – cost and environmental impact. <i>Progress in Energy</i> , 2022, 4, 032010.	10.9	34
132	Recent advances in direct air capture by adsorption. <i>Chemical Society Reviews</i> , 2022, 51, 6574-6651.	38.1	89

#	ARTICLE	IF	CITATIONS
133	Harmful or Beneficial to Humans and the Environment? An Empirical Study on the Social Acceptance and Risk Perception of CO ₂ -Based Fuels. <i>Frontiers in Environmental Science</i> , 0, 10, .	3.3	1
134	Combustion rate shaping for flex-fuel applications. <i>International Journal of Engine Research</i> , 0, , 146808742211107.	2.3	2
135	Review of electrofuel feasibilityâ€™ prospects for road, ocean, and air transport. <i>Progress in Energy</i> , 2022, 4, 042007.	10.9	28
136	Scale-up of the Continuous Production of Poly(oxymethylene) Dimethyl Ethers from Methanol and Formaldehyde in Tubular Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 10034-10046.	3.7	5
137	Numerical analysis of the combustion process of oxymethylene ethers as low-carbon fuels for compression ignition engines. <i>International Journal of Engine Research</i> , 2023, 24, 2175-2186.	2.3	5
138	Comparison of three different structures of zeolites prepared by template-free hydrothermal method and its CO ₂ adsorption properties. <i>Environmental Research</i> , 2022, 214, 113949.	7.5	17
139	Experiments and a generalized model of the chemical equilibrium of transacetalization and oligomerization of poly(oxymethylene) dialkyl ethers. <i>Chemical Engineering Science</i> , 2022, 262, 117995.	3.8	2
140	Potential for the valorization of carbon dioxide from biogas production in Sweden. <i>Journal of Cleaner Production</i> , 2022, 370, 133498.	9.3	11
141	Incremental approach for the life-cycle greenhouse gas analysis of carbon capture and utilization. <i>Journal of CO₂ Utilization</i> , 2022, 65, 102212.	6.8	8
142	CO ₂ adsorption performance of template free zeolite A and X synthesized from rice husk ash as silicon source. <i>RSC Advances</i> , 2022, 12, 23221-23239.	3.6	5
143	A systems level analysis of ethanol upgrading strategies to middle distillates. <i>Energy and Environmental Science</i> , 2022, 15, 4376-4388.	30.8	9
144	Unraveling the carbene chemistry of oxymethylene ethers: Experimental investigation and kinetic modeling of the high-temperature pyrolysis of OME-2. <i>Proceedings of the Combustion Institute</i> , 2022, , .	3.9	3
145	Numerical and Experimental Investigations on the Ignition Behavior of OME. <i>Energies</i> , 2022, 15, 6855.	3.1	8
146	A Study On Fundamental Combustion Properties of Trimethyl Orthoformate: Experiments and Modeling. <i>Journal of Engineering for Gas Turbines and Power</i> , 2022, , .	1.1	0
147	Life cycle assessment of direct synthesis of organosilicon monomer in China. <i>Journal of Cleaner Production</i> , 2022, 377, 134461.	9.3	6
148	New calcification roastingâ€™ sulfuric acid leachingi¼šA zero-discharge, cleaner-sustainable and multi-value-added products route of vanadium. <i>Journal of Cleaner Production</i> , 2022, 379, 134689.	9.3	1
149	Carbon benefits of different energy storage alternative end uses. Application to the Spanish case. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 171, 112985.	16.4	5
150	Review of life cycle assessments (LCA) for mobility powertrains. <i>Transportation Engineering</i> , 2022, 10, 100148.	4.2	10

#	ARTICLE	IF	CITATIONS
151	Rational design of carbon-based materials for purification and storage of energy carrier gases of methane and hydrogen. <i>Journal of Energy Storage</i> , 2022, 56, 105967.	8.1	9
152	Control of low-temperature polyoxymethylene dimethyl ethers (PODE _n)/gasoline combustion considering fuel concentration, fuel reactivity, and intake temperature at low loads. <i>Fuel</i> , 2023, 334, 126823.	6.4	5
153	A novel methanol-electricity cogeneration system based on the integration of water electrolysis and plasma waste gasification. <i>Energy</i> , 2023, 267, 126490.	8.8	7
154	Techno-Economic Analysis of Large Scale Production of Poly(oxymethylene) Dimethyl Ether Fuels from Methanol in Water-Tolerant Processes. <i>Fuels</i> , 2023, 4, 1-18.	2.7	1
155	Industrial carbon dioxide capture and utilization. , 2023, , 231-278.		0
156	Molecular Design of Fuels for Maximum Spark-Ignition Engine Efficiency by Combining Predictive Thermodynamics and Machine Learning. <i>Energy & Fuels</i> , 2023, 37, 2213-2229.	5.1	1
157	Measurements and Derivation of the Spray Simulation Required Physical Properties of Polyoxymethylene Dimethyl Ethers (PODE _n). <i>International Journal of Thermophysics</i> , 2023, 44, .	2.1	2
158	Chemistry diagnostics for monitoring. , 2023, , 417-501.		0
159	Material flows and embodied energy of direct air capture: A cradle-to-gate inventory of selected technologies. <i>Journal of Industrial Ecology</i> , 2023, 27, 646-661.	5.5	1
161	Ready to fly? Comparing acceptance and behavioral usage intentions of CO ₂ -based aviation fuels in four European countries. <i>Frontiers in Energy Research</i> , 0, 11, .	2.3	1
162	Economic Optimization of Multi-energy Coupling System for Ammonia Production from Wind Power and Iron and Steel Production. <i>Lecture Notes in Electrical Engineering</i> , 2023, , 1265-1271.	0.4	0
163	Combustion, Chemistry, and Carbon Neutrality. <i>Chemical Reviews</i> , 2023, 123, 5139-5219.	47.7	37
164	Research Progress on Carbon Dioxide Reduction Coupled with the Formation of C=O Bonds to Oxygenated Compounds. <i>Asian Journal of Organic Chemistry</i> , 2023, 12, .	2.7	1
165	The impact of direct air capture during the last two decades: A bibliometric analysis of the scientific research Part II. , 2023, 2, 100021.		2
166	Design and thermodynamic analysis of a novel structure utilizing coke oven gas for LNG and power cogeneration. <i>Energy</i> , 2023, 277, 127656.	8.8	4
167	An experimental and kinetic modeling study on the low-temperature oxidation of oxymethylene ether-2 (OME-2) by means of stabilized cool flames. <i>Combustion and Flame</i> , 2023, 253, 112792.	5.2	1
168	Analyzing Environmental Impacts of Hypercrosslinked Polymers Produced from Continuous Flow Synthesis for Water Treatment. <i>Industrial & Engineering Chemistry Research</i> , 2023, 62, 9046-9053.	3.7	2
169	Advancing recycling of spent lithium-ion batteries: From green chemistry to circular economy. <i>Energy Storage Materials</i> , 2023, 61, 102870.	18.0	5

#	ARTICLE	IF	CITATIONS
170	Effect of isopropanol on CO ₂ capture by activated carbon: Adsorption performance and regeneration capacity. <i>Chemical Engineering Research and Design</i> , 2023, , .	5.6	0
171	Efficient Utilization of Carbon Dioxide in Power-to-Gas and Power-to-Liquid Processes: A Vital Path to Carbon Neutrality. <i>Processes</i> , 2023, 11, 1898.	2.8	1
172	Techno-economic assessment and exergy analysis of iron and steel plant coupled MEA-CO ₂ capture process. <i>Journal of Cleaner Production</i> , 2023, 416, 137976.	9.3	3
173	A novel process towards the industrial realization of large-scale oxymethylene dimethyl ether production â€œ COMET. <i>Reaction Chemistry and Engineering</i> , 2023, 8, 2876-2893.	3.7	2
175	Mitigating climate change for negative CO ₂ emission via syngas methanation: Techno-economic and life-cycle assessments of renewable methane production. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 185, 113628.	16.4	3
176	Electrofuel Concept of Diesel and Oxygenate Fuels Reduces Engine-Out Emissions. , 0, , .		0
177	Automated Kinetic Mechanism Evaluation for e-Fuels Using SciExpeM: The Case of Oxymethylene Ethers. , 0, , .		0
178	Assessing the environmental impacts of flow and batch syntheses of hypercrosslinked polymers for low-pressure CO ₂ adsorption. <i>Separation and Purification Technology</i> , 2024, 329, 125145.	7.9	0
179	Whatâ€™s in my fuel tank? Insights into beliefs and preferences for e-fuels and biofuels. <i>Energy, Sustainability and Society</i> , 2023, 13, .	3.8	1
181	Comparison of fuel properties of alternative drop-in fuels with standard marine diesel and the effects of their blends. <i>Fuel</i> , 2024, 357, 129937.	6.4	0
182	Numerical assessment of polyoxymethylene dimethyl ether (OME3) injection timing in compression ignition engine. <i>Clean Technologies and Environmental Policy</i> , 2024, 26, 149-167.	4.1	0
183	Paired Electrosynthesis of Formaldehyde Derivatives from CO ₂ Reduction and Methanol Oxidation. <i>Angewandte Chemie</i> , 0, , .	2.0	0
184	Paired Electrosynthesis of Formaldehyde Derivatives from CO ₂ Reduction and Methanol Oxidation. <i>Angewandte Chemie - International Edition</i> , 2024, 63, .	13.8	0
185	Coupling chemical lumping to data-driven optimization for the kinetic modeling of dimethoxymethane (DMM) combustion. <i>Combustion and Flame</i> , 2024, 260, 113202.	5.2	0
186	Insights into combustion and performance of HCCI engine fed with PODE &sub>1&sub> and H &sub>2&sub> -rich PODE &sub>1&sub> -reformat. , 0, , .		0
187	Role of sustainable management policy and carbon neutral processes in improving sustainable performance: Study of China's aluminium sector. <i>Resources Policy</i> , 2024, 88, 104347.	9.6	0
189	Self-Assembled Coreâ€œShell Structure MgO@TiO ₂ as a K ₂ CO ₃ Support with Superior Performance for Direct Air Capture CO ₂ . <i>ACS Applied Materials & Interfaces</i> , 0, , .	8.0	0
190	A review on low carbon fuels for road vehicles: The good, the bad and the energy potential for the transport sector. <i>Fuel</i> , 2024, 361, 130647.	6.4	0

#	ARTICLE	IF	CITATIONS
191	Hydrogen Internal Combustion Engine Strategies for Heavy-Duty Transportation: Engine and System Level Perspective. , 0, , .		0
192	Chemical-Catalytic Conversion of CO ₂ and CO. , 2023, , 83-106.		0
193	Enhancing energy carrier gas storage: Novel MOF-decorated carbons with high affinity toward methane and hydrogen. Chemical Engineering Research and Design, 2024, 203, 419-430.	5.6	0
194	LCA of chemical grade silicon-organosilicon monomer synthesis by large capacity submerged arc furnace in China. Journal of Cleaner Production, 2024, 447, 141532.	9.3	0
195	Unimolecular Decomposition of 1,3-Dioxetane and 1,3,5-Trioxane Derivatives: Fast and Accurate Estimation of Kinetic Parameters. Energy & Fuels, 2024, 38, 6335-6345.	5.1	0