CÇlin Cristian CormoÅ

List of Publications by Year
in descending order

112 papers	3,488 citations	101496 36 h-index	155592 55 g-index
113 all docs	113 docs citations	113 times ranked	2793 citing authors

#	Article	IF	Citations
1	Integrated assessment of IGCC power generation technology with carbon capture and storage (CCS). Energy, 2012, 42, 434-445.	4.5	220
2	Pre-combustion carbon dioxide capture by gasâ€“liquid absorption for Integrated Gasification Combined Cycle power plants. International Journal of Greenhouse Gas Control, 2012, 7, 1-11.	2.3	175
3	Innovative concepts for hydrogen production processes based on coal gasification with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si59.gif" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="bold">CO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math> capture. International Journal of Hydrogen Energy, 2008, 33, 1286-1294.	3.8	123
4	Life Cycle Assessment for supercritical pulverized coal power plants with post-combustion carbon capture and storage. Journal of Cleaner Production, 2017, 157, 10-21.	4.6	114
5	Evaluation of energy integration aspects for IGCC-based hydrogen and electricity co-production with carbon capture and storage. International Journal of Hydrogen Energy, 2010, 35, 7485-7497.	3.8	113
6	Improving methanol synthesis from carbon-free H2 and captured CO2: A techno-economic and environmental evaluation. Journal of CO2 Utilization, 2018, 24, 555-563.	3.3	101
7	Economic evaluations of coal-based combustion and gasification power plants with post-combustion CO 2 capture using calcium looping cycle. Energy, 2014, 78, 665-673.	4.5	94
8	Assessment of hydrogen and electricity co-production schemes based on gasification process with carbon capture and storage. International Journal of Hydrogen Energy, 2009, 34, 6065-6077.	3.8	81
9	Oxy-combustion of coal, lignite and biomass: A techno-economic analysis for a large scale Carbon Capture and Storage (CCS) project in Romania. Fuel, 2016, 169, 50-57.	3.4	80
10	Assessing the environmental impact of an integrated steel mill with post-combustion CO2 capture and storage using the LCA methodology. Journal of Cleaner Production, 2019, 211, 1015-1025.	4.6	79
11	Environmental evaluation of european ammonia production considering various hydrogen supply chains. Renewable and Sustainable Energy Reviews, 2020, 130, 109964.	8.2	77
12	Hydrogen production from fossil fuels with carbon capture and storage based on chemical looping systems. International Journal of Hydrogen Energy, 2011, 36, 5960-5971.	3.8	76
13	Environmental assessment of IGCC power plants with pre-combustion CO2 capture by chemical & calcium looping methods. Journal of Cleaner Production, 2017, 158, 233-244.	4.6	73
14	Hydrogen and power co-generation based on coal and biomass/solid wastes co-gasification with carbon capture and storage. International Journal of Hydrogen Energy, 2012, 37, 5637-5648.	3.8	72
15	Trade-off in emissions of acid gas pollutants and of carbon dioxide in fossil fuel power plants with carbon capture. Energy Policy, 2007, 35, 3991-3998.	4.2	68
16	Evaluation of iron based chemical looping for hydrogen and electricity co-production by gasification process with carbon capture and storage. International Journal of Hydrogen Energy, 2010, 35, 2278-2289.	3.8	67
17	Evaluation of power generation schemes based on hydrogen-fuelled combined cycle with carbon capture and storage (CCS). International Journal of Hydrogen Energy, 2011, 36, 3726-3738.	3.8	66
18	Multi-fuel multi-product operation of IGCC power plants with carbon capture and storage (CCS). Applied Thermal Engineering, 2015, 74, 20-27.	3.0	61

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19	Water Management in Process Industries Incorporating Regeneration and Recycle through a Single Treatment Unit. Industrial & Engineering Chemistry Research, 2008, 47, 1111-1119.	1.8	58
20	Biomass direct chemical looping for hydrogen and power co-production: Process configuration, simulation, thermal integration and techno-economic assessment. Fuel Processing Technology, 2015, 137, 16-23.	3.7	57
21	Techno-economical assessment of coal and biomass gasification-based hydrogen production supply chain system. Chemical Engineering Research and Design, 2013, 91, 1527-1541.	2.7	56
22	Assessment of chemical absorption/adsorption for post-combustion CO2 capture from Natural Gas Combined Cycle (NGCC) power plants. Applied Thermal Engineering, 2015, 82, 120-128.	3.0	56
23	Techno-economic assessment of hydrogen production processes based on various natural gas chemical looping systems with carbon capture. Energy, 2019, 181, 331-344.	4.5	56
24	Assessment of the consumption of water and construction materials in state-of-the-art fossil fuel power generation technologies involving CO2 capture. Energy, 2013, 51, 37-49.	4.5	52
25	Multicriterial analysis of post-combustion carbon dioxide capture using alkanolamines. International Journal of Greenhouse Gas Control, 2011, 5, 676-685.	2.3	50
26	Reducing the carbon footprint of cement industry by post-combustion CO2 capture: Techno-economic and environmental assessment of a CCS project in Romania. Chemical Engineering Research and Design, 2017, 123, 230-239.	2.7	49
27	Carbon capture and utilisation technologies applied to energy conversion systems and other energy-intensive industrial applications. Fuel, 2018, 211, 883-890.	3.4	48
28	Evaluation of reactive absorption and adsorption systems for post-combustion CO2 capture applied to iron and steel industry. Applied Thermal Engineering, 2016, 105, 56-64.	3.0	46
29	Evaluation of syngas-based chemical looping applications for hydrogen and power co-generation with CCS. International Journal of Hydrogen Energy, 2012, 37, 13371-13386.	3.8	45
30	Investigation of hydrogen and power co-generation based on direct coal chemical looping systems. International Journal of Hydrogen Energy, 2014, 39, 2067-2077.	3.8	45
31	CO2 capture from syngas generated by a biomass gasification power plant with chemical absorption process. Energy, 2018, 149, 925-936.	4.5	43
32	Techno-economic assessment of combined hydrogen & power co-generation with carbon capture: The case of coal gasification. Applied Thermal Engineering, 2019, 147, 29-39.	3.0	42
33	Techno-economic evaluations of post-combustion CO2 capture from sub- and super-critical circulated fluidised bed combustion (CFBC) power plants. Applied Thermal Engineering, 2017, 127, 106-115.	3.0	40
34	Use of lower grade coals in IGCC plants with carbon capture for the co-production of hydrogen and electricity. International Journal of Hydrogen Energy, 2010, 35, 556-567.	3.8	39
35	Gas switching reforming for flexible power and hydrogen production to balance variable renewables. Renewable and Sustainable Energy Reviews, 2019, 110, 207-219.	8.2	39
36	Assessment of calcium-based chemical looping options for gasification power plants. International Journal of Hydrogen Energy, 2013, 38, 2306-2317.	3.8	37

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37	Assessment of flexible energy vectors poly-generation based on coal and biomass/solid wastes co-gasification with carbon capture. International Journal of Hydrogen Energy, 2013, 38, 7855-7866.	3.8	34
38	Economic implications of pre- and post-combustion calcium looping configurations applied to gasification power plants. International Journal of Hydrogen Energy, 2014, 39, 10507-10516.	3.8	34
39	Energy and cost efficient manganese chemical looping air separation cycle for decarbonized power generation based on oxy-fuel combustion and gasification. Energy, 2020, 191, 116579.	4.5	33
40	Technico-economic assessment of coal and sawdust co-firing power generation with CO2 capture. Journal of Cleaner Production, 2015, 103, 140-148.	4.6	31
41	Techno-Economic and Environmental Evaluations of Decarbonized Fossil-Intensive Industrial Processes by Reactive Absorption & Adsorption CO2 Capture Systems. Energies, 2020, 13, 1268.	1.6	30
42	Waste reduction algorithm applied for environmental impact assessment of coal gasification with carbon capture and storage. Journal of Cleaner Production, 2015, 104, 220-235.	4.6	29
43	Techno-economic and environmental evaluations of large scale gasification-based CCS project in Romania. International Journal of Hydrogen Energy, 2014, 39, 13-27.	3.8	27
44	Assessment of chemical looping-based conceptual designs for high efficient hydrogen and power co-generation applied to gasification processes. Chemical Engineering Research and Design, 2014, 92, 741-751.	2.7	25
45	Renewable hydrogen production concepts from bioethanol reforming with carbon capture. International Journal of Hydrogen Energy, 2014, 39, 5597-5606.	3.8	25
46	Assessment of coal and sawdust co-firing power generation under oxy-combustion conditions with carbon capture and storage. Journal of Cleaner Production, 2017, 142, 3527-3535.	4.6	25
47	Life Cycle Assessment of Natural Gas-based Chemical Looping for Hydrogen Production. Energy Procedia, 2014, 63, 7408-7420.	1.8	23
48	Chemical Looping with Oxygen Uncoupling (CLOU) concepts for high energy efficient power generation with near total fuel decarbonisation. Applied Thermal Engineering, 2017, 112, 924-931.	3.0	23
49	Techno-economic and environmental performances of glycerol reforming for hydrogen and power production with low carbon dioxide emissions. International Journal of Hydrogen Energy, 2017, 42, 7798-7810.	3.8	23
50	Power generation from coal and biomass based on integrated gasification combined cycle concept with preâ€•and postâ€combustion carbon capture methods. Asia-Pacific Journal of Chemical Engineering, 2009, 4, 870-877.	0.8	22
51	Cost Effective CO2 Reduction in the Iron & Steel Industry by Means of the SEWGS Technology: STEPWISE Project. Energy Procedia, 2017, 114, 6256-6265.	1.8	22
52	Techno-economic implications of flexible operation for super-critical power plants equipped with calcium looping cycle as a thermo-chemical energy storage system. Fuel, 2020, 280, 118293.	3.4	22
53	Techno-economic and environmental implications of decarbonization process applied for Romanian fossil-based power generation sector. Energy, 2021, 220, 119734.	4.5	22
54	Life Cycle Analysis applied to acrylic acid production process with different fuels for steam generation. Journal of Cleaner Production, 2016, 133, 294-303.	4.6	20

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55	The design of carbon capture IGCC-based plants with hydrogen co-production. Energy Procedia, 2009, 1, 591-598.	1.8	19
56	Decarbonization options for cement production process: A techno-economic and environmental evaluation. Fuel, 2022, 320, 123907.	3.4	19
57	Assessment of Hydrogen Production Systems based on Natural Gas Conversion with Carbon Capture and Storage. Computer Aided Chemical Engineering, 2014, 33, 1081-1086.	0.3	18
58	Techno-economical evaluations of decarbonized hydrogen production based on direct biogas conversion using thermo-chemical looping cycles. International Journal of Hydrogen Energy, 2021, 46, 23149-23163.	3.8	17
59	Techno-economic assessment of calcium and magnesium-based sorbents for post-combustion CO2 capture applied in fossil-fueled power plants. Fuel, 2021, 298, 120794.	3.4	17
60	Comparative life cycle analysis for gasification-based hydrogen production systems. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	16
61	Evaluation of energy efficient low carbon hydrogen production concepts based on glycerol residues from biodiesel production. International Journal of Hydrogen Energy, 2015, 40, 7017-7027.	3.8	16
62	Techno-Economic Evaluations of Copper-Based Chemical Looping Air Separation System for Oxy-Combustion and Gasification Power Plants with Carbon Capture. Energies, 2018, 11, 3095.	1.6	16
63	Evaluation of techno-economic performance for decarbonized hydrogen and power generation based on glycerol thermo-chemical looping cycles. Applied Thermal Engineering, 2020, 179, 115728.	3.0	16
64	CO2 Utilization Technologies: A Techno-Economic Analysis for Synthetic Natural Gas Production. Energies, 2021, 14, 1258.	1.6	16
65	Assessment of copper-based chemical looping air separation system for energy efficiency improvements of oxy-combustion and gasification power plants. Applied Thermal Engineering, 2018, 130, 120-126.	3.0	15
66	Techno â€“ Economic assessment of flexible decarbonized hydrogen and power co-production based on natural gas dry reforming. International Journal of Hydrogen Energy, 2019, 44, 31712-31723.	3.8	14
67	Technical evaluations of carbon capture options for power generation from coal and biomass based on integrated gasification combined cycle scheme. Energy Procedia, 2011, 4, 1861-1868.	1.8	13
68	STEPWISE Project: Sorption-Enhanced Water-Gas Shift Technology to Reduce Carbon Footprint in the Iron and Steel Industry. Johnson Matthey Technology Review, 2018, 62, 395-402.	0.5	13
69	Assessment of main energy integration elements for decarbonized gasification plants based on thermo-chemical looping cycles. Journal of Cleaner Production, 2020, 259, 120834.	4.6	13
70	Process simulation coupled with LCA for the evaluation of liquid - liquid extraction processes of phenol from aqueous streams. Journal of Water Process Engineering, 2021, 41, 102077.	2.6	13
71	Experimental data supported techno-economic assessment of the oxidative dehydrogenation of ethane through chemical looping with oxygen uncoupling. Renewable and Sustainable Energy Reviews, 2021, 149, 111403.	8.2	13
72	Techno-economical and environmental evaluations of IGCC power generation process with carbon capture and storage (CCS). Computer Aided Chemical Engineering, 2011, , 1678-1682.	0.3	12

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73	Life Cycle Assessment of SEWGS Technology Applied to Integrated Steel Plants. Sustainability, 2019, 11, 1825.	1.6	11
74	Evaluation of Calcium Looping as Carbon Capture Option for Combustion and Gasification Power Plants. Energy Procedia, 2014, 51, 154-160.	1.8	10
75	Energy efficiency improvements of post-combustion CO2 capture based on reactive gasâ€“liquid absorption applied for super-critical circulating fluidized bed combustion (CFBC) power plants. Clean Technologies and Environmental Policy, 2018, 20, 1311-1321.	2.1	10
76	Assessment of Hybrid Solventâ€”Membrane Configurations for Post-Combustion CO2 Capture for Super-Critical Power Plants. Energies, 2021, 14, 5017.	1.6	10
77	Mathematical modeling and simulation of gasification processes with Carbon Capture and Storage (CCS) for energy vectors poly-generation. Computer Aided Chemical Engineering, 2010, 28, 697-702.	0.3	9
78	Integration of membrane technology for decarbonization of gasification power plants: A techno-economic and environmental investigation. Applied Thermal Engineering, 2022, 205, 118078.	3.0	9
79	Techno-economic assessment of decarbonized biogas catalytic reforming for flexible hydrogen and power production. Applied Thermal Engineering, 2022, 207, 118218.	3.0	7
80	Environmental evaluation of hydrogen production employing innovative chemical looping technologies â€“ A Romanian case study. International Journal of Hydrogen Energy, 2023, 48, 12112-12128.	3.8	6
81	Design of Integrated Gasification Combined Cycle plant with Carbon Capture and Storage based on co-gasification of coal and biomass. Computer Aided Chemical Engineering, 2011, 29, 1904-1908.	0.3	5
82	Flexible Hydrogen and Power Co - generation based on Dry Methane Reforming with Carbon Capture. Computer Aided Chemical Engineering, 2018, 43, 1281-1286.	0.3	5
83	Techno-Economic Assessment of IGCC Power Plants Using Gas Switching Technology to Minimize the Energy Penalty of CO2 Capture. Clean Technologies, 2021, 3, 594-617.	1.9	5
84	Energy integration issues for hydrogen and electricity co-production based on gasification process with Carbon Capture and Storage (CCS). Computer Aided Chemical Engineering, 2010, , 1057-1062.	0.3	4
85	Thermodynamic evaluation of hydrogen production via bioethanol steam reforming. AIP Conference Proceedings, 2013, , .	0.3	4
86	Thermodynamic Study of Hydrogen Production via Bioglycerol Steam Reforming. Computer Aided Chemical Engineering, 2014, 33, 1735-1740.	0.3	4
87	Fuel Reactor CFD Multiscale Modelling in Syngas-Based Chemical Looping Combustion with Ilmenite. Energies, 2021, 14, 6059.	1.6	4
88	Techno-economic and environmental assessment of flexible operation for decarbonized super-critical power plants using reactive gasâ€“liquid absorption. Applied Thermal Engineering, 2021, 197, 117354.	3.0	4
89	Integrated assessment of carbon capture and storage technologies in coal-based power generation using CAPE tools. Computer Aided Chemical Engineering, 2012, , 56-60.	0.3	4
90	Making soda ash manufacture more sustainable. A modeling study using ASPEN Plus. Computer Aided Chemical Engineering, 2007, , 551-556.	0.3	3

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91	Materials challenges and gasifier choices in IGCC processes for clean and efficient energy conversion. Materials Research Innovations, 2011, 15, 428-446.	1.0	3
92	Conceptual design of hydrogen production process from bioethanol reforming. Computer Aided Chemical Engineering, 2013, , 19-24.	0.3	3
93	Process Design and Integration of Various Carbon Capture Approaches into the Energy Sector and Other Energy-intensive Industrial Applications. Computer Aided Chemical Engineering, 2016, 38, 265-270.	0.3	3
94	Assessing Energy and CO2 Emission Reduction from Ammonia Production by Chemical Looping as Innovative Carbon Capture Technology. Computer Aided Chemical Engineering, 2018, 43, 1269-1274.	0.3	3
95	Exergoeconomic Analysis for a Flexible Dry Reforming Power Plant with Carbon Capture for Improved Energy Efficiency. Computer Aided Chemical Engineering, 2019, 46, 1681-1686.	0.3	3
96	Evaluation of Energy Integration Aspects for Advanced Chemical Looping Systems Applied for Energy Vectors Poly-generation. Computer Aided Chemical Engineering, 2015, 37, 2237-2242.	0.3	3
97	TECHNO-ECONOMICAL EVALUATION OF POST- AND PRE- COMBUSTION CARBON DIOXIDE CAPTURE METHODS APPLIED FOR AN IGCC POWER GENERATION PLANT. Environmental Engineering and Management Journal, 2013, 12, 2191-2201.	0.2	3
98	Negative CO2 emissions in biomass gasification process with hybrid amine-deep eutectic solvents. Computer Aided Chemical Engineering, 2021, , 1665-1670.	0.3	2
99	Advanced process control of pantolactone synthesis using nonlinear model predictive control (NMPC). Computer Aided Chemical Engineering, 2005, 20, 1435-1440.	0.3	1
100	Heat and power integration for hydrogen-fuelled Combined Cycle Gas Turbine (CCGT). Computer Aided Chemical Engineering, 2009, , 1239-1244.	0.3	1
101	Evaluation of energy vectors poly-generation schemes based on solid fuel gasification processes with Carbon Capture and Storage (CCS). Computer Aided Chemical Engineering, 2009, , 1275-1280.	0.3	1
102	Evaluation of chemical looping systems as carbon capture option to be applied to gasification processes. Computer Aided Chemical Engineering, 2013, 32, 199-204.	0.3	1
103	Assessing the CO 2 Emissions Reduction from Cement Industry by Carbon Capture Technologies: Conceptual Design, Process Integration and Techno-economic and Environmental Analysis. Computer Aided Chemical Engineering, 2017, 40, 2593-2598.	0.3	1
104	Assessment of flexible carbon capture and utilization options applied to gasification plants. Studia Universitatis Babes-Bolyai Chemia, 2020, 65, 21-34.	0.1	1
105	Process water management with regeneration and recycle. Computer Aided Chemical Engineering, 2007, , 1343-1348.	0.3	0
106	Assessment of Innovative Carbon Capture Technologies Applied for Flexible Energy Vectors Poly-generation. Computer Aided Chemical Engineering, 2020, , 1369-1374.	0.3	0
107	Techno-economic Assessment of Load Following Operation for Super-critical Power Plants Equipped with Carbon Capture Feature. Computer Aided Chemical Engineering, 2021, 50, 1479-1484.	0.3	0
108	Compressor Issues for Hydrogen Production and Transmission Through a Long Distance Pipeline Network. Revista De Chimie (discontinued), 2008, 59, .	0.2	0

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109	Multiproduct, multiechelon supply chain analysis under demand uncertainty and machine failure risk. Computer Aided Chemical Engineering, 2012, , 462-466.	0.3	0
110	Evaluation of hydrogen production from catalytic reforming of liquefied petroleum gas with carbon capture and storage. Studia Universitatis Babes-Bolyai Chemia, 2017, 62, 243-252.	0.1	0
111	Techno-economic and environmental assessment of hydrogen production based on natural gas steam reforming process. Studia Universitatis Babes-Bolyai Chemia, 2020, 65, 7-19.	0.1	0
112	Application of Carbonate Looping Cycle as an Energy-efficient Decarbonization Process of Key Fossil-intensive Industrial Applications. , 2021, , .		0