Publication list

Prof. Dr. Eng. Cormos Calin-Cristian

1. Books

1. **C.C. Cormos**, *Decarbonizarea combustibililor fosili solizi prin gazeificare*, Presa Universitară Clujană, 2008, 345 pp.
2. **C.C. Cormos**, *Ingineria Reacțiilor Chimice, Aplicații practice pentru studiul reactoarelor omogene și eterogene gaz-lichid*, Presa Universitară Clujană, 2014, 129 pp.
3. **C.C. Cormos**, *IGCC with carbon capture and storage*, Encyclopedia of Sustainable Technologies, 2017, 327-338.

2. Articles

1. **C.C. Cormos**, *Energy and cost efficient manganese chemical looping air separation cycle for decarbonized power generation based on oxy-fuel combustion and gasification*, Energy, 2019, accepted, in press
2. S. Szima, **C.C. Cormos**, *Techno - economic assessment of flexible decarbonized hydrogen and power co-production based on natural gas dry reforming*, International Journal of Hydrogen Energy, 2019, accepted, in press
3. D.A. Chisalita, **C.C. Cormos**, *Techno-economic assessment of hydrogen production processes based on various natural gas chemical looping systems with carbon capture*, Energy, 181, 2019, 331-344
4. S. Szima, S.M. Nazir, S. Cloete, S. Amini, S. Fogarasi, A.M. Cormos, C.C. Cormos, *Gas switching reforming for flexible power and hydrogen production to balance variable renewables*, Renewable and Sustainable Energy Reviews, 110, 2019, 207-219
5. D.A. Chisalita, L. Petrescu, P. Cobden, H.A.J van Dijk, A.M. Cormos, **C.C. Cormos**, *Assessing the environmental impact of an integrated steel mill with post-combustion CO_2 capture and storage using the LCA methodology*, Journal of Cleaner Production, 211, 2019, 1015-1025

6. L. Petrescu, D.A. Chisalita, **C.C. Cormos**, G. Manzolini, P. Cobden, H.A.J. van Dijk, *Life cycle assessment of SEWGS technology applied to integrated steel plants*, Sustainability, 11, 2019, 1825
7. V.C. Sandu, **C.C. Cormos**, A.M. Cormos, *Assessment of various water-gas-shift process configurations applied to partial oxidation energy conversion processes with carbon capture*, Studia Universitatis Babes-Bolyai Chemia, 64, 2019, 371-381
8. S. Szima, **C.C. Cormos**, *Exergoeconomic analysis for a flexible dry reforming power plant with carbon capture for improved energy efficiency*, 29-th European Symposium on Computer Aided Process Engineering - ESCAPE29, Eindhoven, The Netherlands, 16 - 19 June 2019
9. **C.C. Cormos**, L. Petrescu, A.M. Cormos, D.A. Chisalita, *Chemical looping technology - An energy efficient way for reducing carbon footprint of fossil-based industrial processes*, 21-st Romanian International Conference on Chemistry and Chemical Engineering - RICCCE21, Mamaia, Romania, 4 - 7 September 2019
10. V.C. Sandu, A.M. Cormos, **C.C. Cormos**, *Evaluation of energy integration aspects for IGCC power plant equipped with CO_2 capture feature based on reactive gas-solid systems*, 14th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), Dubrovnik, Croatia, 1 - 6 October 2019
11. D.A. Chisalita, L. Petrescu, **C.C. Cormos**, *Environmental comparison of various ammonia production plants with carbon capture and storage*, 14th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), Dubrovnik, Croatia, 1 - 6 October 2019
12. A.M. Cormos, S. Dragan, L. Petrescu, D.A. Chisalita, S. Szima, V. Sandu, **C.C. Cormos**, *Reducing the carbon footprint of power generation systems and other energy-intensive industrial applications by CO_2 capture and utilization technologies: An integrated technical & environmental assessment*, 22-nd Conference on Process Integration. Modelling, and Optimisation for Energy Saving and Pollution Reduction - PRES 19, Crete, Greece, 20 - 23 October 2019
13. **C.C. Cormos**, *Techno-economic evaluations of copper-based chemical looping air separation system for oxy-combustion and gasification power plants with carbon capture*, Energies, 11, 2018, 1-17
14. D.A. Chisalita, L. Petrescu, A.M. Cormos, **C.C. Cormos**, *Assessing energy and CO_2 emission reduction from ammonia production by chemical looping as innovative carbon capture technology*, 28-th European Symposium on Computer Aided Process

Engineering - ESCAPE28, Graz, Austria, 10 - 13 June 2018, published in Computer Aided Chemical Engineering, 43, 2018, 1269-1274

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16. **C.C. Cormos**, *Assessment of copper-based chemical looping air separation system for energy efficiency improvements of oxy-combustion and gasification power plants*, Applied Thermal Engineering, 130, 2018, 120-126
17. S. Szima, **C.C. Cormos**, *Improving methanol synthesis from carbon-free H_2 and captured CO_2: A techno-economic and environmental evaluation*, Journal of CO_2 Utilization, 24, 2018, 555-563
18. A.M. Cormos, C. Dinca, L. Petrescu, D.A. Chisalita, S. Szima, **C.C. Cormos**, *Carbon capture and utilisation technologies applied to energy conversion systems and other energy-intensive industrial applications*, Fuel, 211, 2018, 883-890
19. C. Dinca, N. Slavu, **C.C. Cormos**, A. Badea, *CO_2 capture from syngas generated by a biomass gasification power plant with chemical absorption process*, Energy, 149, 2018, 925-936
20. A.M. Cormos, **C.C. Cormos**, *Techno-economic evaluations of post-combustion CO_2 capture from sub- and super-critical circulated fluidised bed combustion (CFBC) power plants*, Applied Thermal Engineering, 127, 2017, 106-115
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23. **C.C. Cormos**, L. Petrescu, A.M. Cormos, *Chemical & Calcium Looping Systems: Heat Integration Analysis for Improvement the Energy Efficiency of Various Industrial Processes*, 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics - HEFAT2017, Portoroz, Slovenia, 17-19 July 2017

24. A.M. Cormos, D.A. Chisalita, L. Bizo, H. Lisei, **C.C. Cormos**, *Model of Heat Transfer in Circulating Fluidized Beds Applied for CO2 Capture by Calcium-looping Process*, 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics - HEFAT2017, Portoroz, Slovenia, 17-19 July 2017
25. A.M. Cormos, **C.C. Cormos**, *Reducing the carbon footprint of cement industry by post-combustion CO_2 capture: Techno-economic and environmental assessment of a CCS project in Romania*, Chemical Engineering Research and Design, 123, 2017, 230-239
26. A.M. Cormos, **C.C. Cormos**, *Techno-economic and environmental performances of glycerol reforming for hydrogen and power production with low carbon dioxide emissions,* International Journal of Hydrogen Energy, 42, 2017, 7798-7810
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28. L. Petrescu, **C.C. Cormos**, *Environmental assessment of IGCC power plants with pre-combustion CO_2 capture by chemical & calcium looping methods*, Journal of Cleaner Production, 158, 2017, 233-244
29. S. Fogarasi, **C.C. Cormos**, *Assessment of coal and sawdust co-firing power generation under oxy-combustion conditions with carbon capture and storage*, Journal of Cleaner Production, 142, 2017, 3527-3535
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32. L. Petrescu, M. Fermeglia, **C.C. Cormos**, *Life Cycle Analysis applied to acrylic acid production process with different fuels for steam generation*, Journal of Cleaner Production, 133, 2016, 294-303
33. **C.C. Cormos**, L. Petrescu, A.M. Cormos, S. Agachi, *Process design and integration of various carbon capture approaches into the energy sector and other energy-intensive industrial applications*, Computer Aided Chemical Engineering, 38, 2016, 265-270

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35. A.M. Cormos, S. Agachi, **C.C. Cormos**, *Bioglycerol reforming for hydrogen-based power generation: Process configuration, thermodynamic simulation, process integration and performance assessments*, 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, 11 - 13 July 2016, Costa de Sol, Spain
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40. Z. Tasnadi-Asztalos, **C.C. Cormos**, A.M. Cormos, D. Lazar, P.S. Agachi, *Dynamic simulation of hydrogen production from bioglycerol steam reforming in a continuous flow tubular reactor*, 10th Conference on Sustainable Development of Energy, Water and Environment Systems, Dubrovnik, Croatia, September 27 - October 2, 2015
41. Z. Tasnadi-Asztalos, **C.C. Cormos**, P.S. Agachi, *Hydrogen-based power generation from bioethanol steam reforming*, 10th International Conference Processes in Isotopes and Molecules, Cluj-Napoca, Romania, 23 - 25 September 2015
42. **C.C. Cormos**, A.M. Cormos, *Techno-economic and environmental analysis of oxy-combustion power plants*, 10th European Congress of Chemical Engineering, Nice, France, 27 September - 1 October 2015
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