List of publication
Prof. Dr. Ing. Cormos Calin-Cristian

1. Books

1. **C.C. Cormos**, *Decarbonizarea combustibililor fosili solizi prin gazeificare*, Presa Universitară Clujană, 2008, 345 pp.
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2. Articles

1. S.C. Galusnyak, L. Petrescu, **C.C. Cormos**, *Environmental impact assessment of post-combustion CO_2 capture technologies applied to cement production plants*, Journal of Environmental Management, 320, 2022, 115908
2. D.A. Chisalita, L. Petrescu, S.C. Galusnyak, **C.C. Cormos**, *Environmental evaluation of hydrogen production employing innovative chemical looping technologies – A Romanian case study*, International Journal of Hydrogen Energy, aceptat
3. S.C. Galusnyak, L. Petrescu, D.A. Chisalita, **C.C. Cormos**, *Life cycle assessment of methanol production and conversion into various chemical intermediates and products*, Energy, 259, 2022, 124784
4. F.M. Ilea, A.M. Cormos, S. Dragan, **C.C. Cormos**, *Assessment of turbulent contact absorber hydrodynamics with application in carbon capture*, Chemical Engineering Journal, 449, 2022, 137674
5. S.C. Galusnyak, L. Petrescu, **C.C. Cormos**, *Classical vs. reactive distillation technologies for biodiesel production: An environmental comparison using LCA methodology*, Renewable Energy, 192, 2022, 289-299

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11. S. Szima, C.A. del Pozo, S. Cloete, S. Fogarasi, A.J. Alvaro, A.M. cormos, **C.C. Cormos**, S. Amini, *Techno-economic assessment of IGCC power plants using gas switching technology to minimize the energy penalty of CO_2 capture*, Clean Technologies, 3, 2021, 594-617
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13. **C.C. Cormos**, L. Petrescu, A.M. Cormos, C. Dinca, *Assessment of hybrid solvent - membrane configurations for post-combustion CO_2 capture for super-critical power plants*, Energies, 14 (2021) 5017
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3. Patents

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4. Research projects

1. Project: *Advanced thermo-chemical systems for time-flexible energy conversion and storage applications with low carbon dioxide emissions*, Exploratory research project, PN-III-P4-ID-PCE-2020-0032, 2021 – 2023, Project director;

2. Project: *Integrating process intensification methods with advanced control strategies for improved performance of CO_2 capture systems*, Exploratory research project, PN-III-P4-ID-PCE-2020-0632, 2021 – 2023, Member in the research team;
3. Project: *Validation of innovative energy efficient calcium looping technology for decarbonization of fossil fuel-intensive industrial applications*, Experimental – demonstrative project, PN-III-P2-2.1-PED-2019-0181, 2020 - 2022, Project director;
4. Project: *Hybrid Solvent – Membrane for post-combustion CO_2 capture and utilization*, NO Grants Call for Proposals 2019 - CRPs, RO-NO-2019-0379, 2020 - 2023, Project respinsible from Babes-Bolyai University;
5. Project: *CONVERGE - Carbon valorisation in energy-efficient green fuels*, Horizon 2020, Nr. 818135, 2018 - 2022, Member in the research team;
6. Project: *Developing innovative low carbon solutions for energy-intensive industrial applications by Carbon Capture, Utilization and Storage (CCUS) technologies*, Exploratory research project, PN-III-P4-ID-PCE-2016-0031, 2017 - 2019, Project manager;
7. Project: *3D-CAPS: Three Dimensional Printed Capture Materials for Productivity Step-Change*, ERANET ACT, No. 87/2017, 2017 - 2020, Project director;
8. Project: *Demonstration of Gas Switching Technology for Accelerated Scale-up of Pressurized Chemical Looping Applications (GaSTech)*, ERANET ACT, No. 91/2017, 2017 - 2020, Member in the research team;
9. Project: *Dezvoltarea unui proces inovativ şi ecologic pentru recuperarea cuprului şi a fracţiilor nemetalice din deşeuri de plăci de circuite imprimate fără componente electronice*, Post-doctoral reserch project, Contract no. 57/2018, PN-III-P1-1.1-PD-2016-0139, 2018-2020, Member in the research (mentor);
10. Project: *Optimizarea și validarea instalației pilot demonstrative de captare CO_2 utilizând tehnologia prin absorbție chimică,* Experimental – demonstrative project, 2017 - 2018, Project responsible from Babes-Bolyai University;
11. Project: *SEWGS - Technology platform for cost effective CO_2 reduction in the iron & steel industry*, Horizon 2020, Nr. 640769, 2015 - 2019, Project responsible from Babes-Bolyai University;
12. Project: *Procesul de captare post-combustie a dioxidului de carbon: simularea în regim dinamic și evaluarea degradării solventului*, Proiect de mobilități România - Belgia, 2017 - 2018, Member in the esearch team;

13. Project: *Advanced thermo-chemical looping cycles for the poly-generation of decarbonised energy vectors: Material synthesis and characterisation, process modelling and life cycle analysis*, Romanian-Swiss Research Programme (RSRP), IZERZO_141976/1, 2013 - 2015, Project director;
14. Project: *Optimizarea tehnico-economică și a impactului asupra mediului a integrării tehnologiilor CCS în centralele electrice pe combustibili fosili solizi și surse energetice regenerabile (biomasă)*, Proiecte colaborative de cercetare aplicativa (PCCA), PN-II-PT-PCCA-2011-3.2-0162, 2012 - 2016, Project responsible from Babes-Bolyai University;
15. Project: *Producerea de hidrogen din compuși hidroxilici rezultați ca deșeu la prelucrarea biomasei*, Proiecte colaborative de cercetare aplicativa (PCCA), PN-lI-PT-PCCA-2011-3.2-0452, 2012 - 2016, Project responsible from Babes-Bolyai University;
16. Project: *Sisteme inovative pentru captarea dioxidului de carbon aplicabile proceselor de conversie a energiei*, ERC-like project, PNII-CT-ERC-2012-1; 2ERC, 2012 - 2014, Project manager;
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19. Project: *Conceptual design of typical power plant configurations for the estimation of reference capital costs including material*, Proiect realizat pentru European Commission, DG Joint Research Centre, Institute for Energy, The Netherlands, 2010-2011, Project manager;
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21. Project: *Dynamis - Towards hydrogen and electricity with CO_2 management*, FP6 integrated project, Coordonator: Sintef Norway, member in the research team of European Commission, DG Joint Research Centre, Institute for Energy, The Netherlands, 2006 – 2009;

22. Project: *Platforma de simulare control si testare in mecatronica CONMEC*, Proiect CEEX, 2006 - 2008, Member in the research team;
23. Project: *Îmbunătățirea performanțelor tehnico-economice ale procesului de calcinare a calcarului într-un cuptor vertical prin modelarea matematică și simularea acestuia cu ajutorul calculatorului*, Young research project - CNCSIS AT, 2005 - 2006, Project manager;
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