

PERSONAL INFORMATION



Ana-Maria Cormos

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Date of birth 11/06/1973 | Nationality Romanian

POSITION

Associate professor

WORK EXPERIENCE

September 2002 - onwards

Associate Professor (Oct. 2014 - onwards), Lecturer (Oct. 2007-Sept. 2014), Teaching Assistant (Sept. 2002 – Sept. 2007)

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

- Teaching the courses and laboratory work for the following academic discipline: "Computers Programming with Application in Chemical Engineering", "Modeling and Simulation of Chemical Processes", "Dynamic Analysis of Complex Processes", "Chemical Engineering Reactions", "Computer using in chemical research"
- Research area: Modeling and Simulation of Chemical Processes; Computer Applications in Chemistry and Chemical Engineering; Carbon Capture and Storage; Energy conversion systems

November 1998 - May 2005

PhD student

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

- Modeling and Simulation of Limestone Decomposition in Vertical Lime Kiln with coke

October 1996- October 1998

Research Assistant

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

- Modeling and Simulation of Chemical Processes; Computer Applications in Chemistry and Chemical Engineering

EDUCATION AND TRAINING

November 1, 1998 - May 11, 2005

PhD

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

- Modeling and Simulation of Limestone Decomposition in Vertical Lime Kiln with coke

December 2007

Academic stage

Automatic Control Laboratory, ETH Zurich, Switzerland

- Development of application for courses using Excel and Matlab in case of Modeling and Simulation of Chemical Processes; Computer Applications in Chemical Research

February 17- August 16, 2003

Research stage

ETH Zurich, Switzerland, Institute of Process Engineering, Group of Advanced Separation Processes

- Numerical approaches for population balance equations: Implementation of the moving pivot technique developed by Ramkrishna into a Fortran equation solver program. Case study: barium sulfate precipitation process

Contact person: Prof. Marco Mazzotti

February 11 - April 10, 2002

Research stage

University of Technology in Vienna, Austria, Group of Gas - Solid Process

- Simulation of the Scrubbing Unit of Waste Incineration Plant, Contact Person: Prof. Anton Friedl

- October 1997- June 1998 **Master of science**
Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania
▪ Interface Process Engineering
- October 1991- June 1996 **Bachelor of Science**
Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania
▪ Chemistry - Physical

PERSONAL SKILLS

- Mother tongue(s)** Romanian
- Other language(s)** English
- Communication skills** Teamwork, communication and interpersonal skills, responsibility
- Computer skills** Microsoft Office (Word, Excel, PowerPoint), Corel Draw, ChemWin
MATLAB/SIMULINK, COMSOL Multiphysics, Fortran, ChemCAD, Aspen

ADDITIONAL INFORMATION

- Publications** 2 books (co-author), over 123 scientific papers (55 - highly visible ISI indexed journals, 8 - IDB indexed journals, 45 - ISI conferences proceedings and 15 - conferences proceedings IDB); Hirsch index: 19;
- Projects**
- Project manager:
 - Integrating process intensification methods with advanced control strategies for improved performance of CO₂ capture systems, Project ID: PN-III-P4-ID-PCE-2020-0632, 2021-2023.
 - Demonstration of Gas Switching Technology for Accelerated Scale-up of Pressurized Chemical Looping Applications (GaSTech), ERA-Net Cofund ACT, No 91/2017.
 - Dynamic simulation of a post-combustion CO₂ capture pilot with assessment of solvent degradation, Mobility project, Project ID: PN-III-P3-3.1-PM-RO-BE-2016-0008, 2017-2018.
 - The improving of the technical- economic performance and reduction of environmental impact of chemical processes using mathematical modeling and simulation of the processes using computers
 - CNCIS AT 2006 – Them 3, COD 7.
 - Member in the research teams (17 national projects, 7 international projects, 2 industrial projects);
- Selected Projects**
- 3D-CAPS: Three Dimensional Printed Capture Materials for Productivity Step-Change, ERA-Net Cofund ACT, No 87/2017.
 - Developing innovative low carbon solutions for energy-intensive industrial applications by Carbon Capture, Utilization and Storage (CCUS) technologies, CNCIS – UEFISCDI, project ID: PN-III-P4-ID-PCE-2016-0031.
 - Optimization and validation of the CO₂ capture demonstrative pilot installation by chemical absorption technology, CNCIS – UEFISCDI, project ID: PN-III-P2-2.1-PED-2016-0558
 - SEWGS Technology Platform for cost effective CO₂ reduction the in the Iron and Steel Industry (STEPWISE), Project ID 640769, Horizon 2020.
- Scientific referent** Energy; International Journal of Greenhouse Gas Control; International Journal of Hydrogen Energy; Industrial & Engineering Chemistry Research; Fuel Processing Technology; International Journal of Refrigeration; Environmental Science & Technology; Energy & Fuels; Fuel; Journal of Cleaner Production; Applied Thermal Engineering; Resource Conservation and Recycling; Studia Universitatis - Seria Chemia etc.
- Professional Affiliation** Member of Romanian Chemical Engineers Society;
- Profile address** Scopus: <https://www.scopus.com/authid/detail.uri?authorId=8450482900>
ORCID: <https://orcid.org/0000-0003-0832-0722>