

## Europass Curriculum Vitae



### Personal information

First name(s) / Surname(s) **Carmen Mateescu**

Telephone(s)

Fax(es)

E-mail

Nationality Romanian

Date of birth

Gender F

### Work experience

July 2016 – present

Senior Researcher, Department of Environment, Energy and Climatic Changes, Laboratory of Biochemistry and Bioresources.

Research activities in the field of environmental technologies and bioresources recovery. Project management, coordinator of ongoing projects: Project PNIII contract 170PED / 2017 "Development and validation of reliable solutions to produce biogas from algal biomass in the Danube Delta Biosphere Reserve"; Complex Project 0541 "Integration of microalgal cultivation process into biogas plants for by-products complex recovery". Development of national and international research projects in the fields of environment protection and renewable energy. Development of patented innovative solutions for waste and wastewater treatment with the recovery of fuel gases and fertilizer sludge. Research, design and execution of equipment for the energy recovery of biodegradable waste while improve the environment quality; Research on bio-electromagnetic stimulation of living cell cultures for applications in the fields of environmental biotechnology and bioenergy

Dates November 2010 – June 2016

Occupation or position held Senior Researcher, Department of Efficiency in Energy Conversion and Consumption

Main activities and responsibilities

Research activities in the field of renewable energy sources: Researches for biogas obtaining from biomass and waste; Chemical and microbiological analysis of high organic load wastewaters for monitoring of anaerobic digestion in biogas systems; Researches for stimulation of microbial activity in biogas generation processes for increasing the energy efficiency of the biogas systems; Researches for enhancing the biological decomposition of lignocellulosis materials used in biofuels industry; Project management activities for the following national and bilateral projects: Nucleu Project no. 0935/2009 „Enhance the effectiveness of equipments and technological processes for energetically conversion of renewables”; Ro-China Bilateral Project „ Investigation on biogas producing microorganisms under high hydrostatic pressures and applied research on algae growth for CO<sub>2</sub> recovery”; Ro-China Bilateral Project „Prospective studies for assessing the opportunity to develop a bioreactor for energy generation based on organic waste and wastewaters”

Name and address of employer INC DIE ICPE CA, 313-Splaiul Unirii, Bucharest-3, 030138, Romania

Type of business or sector Environment protection and renewable energy sources

Dates September 2009 – October 2010

Occupation or position held Researcher, Head of Biology Department

Main activities and responsibilities Research activities in the field of renewable energy sources: Researches for biogas production from biomass and waste; Chemical and microbiological analysis of highly organics loaded wastewaters for monitoring anaerobic digestion in biogas systems;  
Researches for stimulation of microbial activity in biogas generation processes for increasing the energy efficiency of the biogas systems;  
Researches for enhancing the biological decomposition of lignocelluloses materials used in biofuels industry;  
Project management activities for the national project Nucleu 0935/2009 „Enhance the effectiveness of equipments and technological processes for energetically conversion of renewables”

Name and address of employer INCDIE ICPE CA, 313-Splaiul Unirii, Bucharest-3, 030138, Romania

Type of business or sector Environment protection and renewable energy sources

Dates June 2007 - August 2009

Occupation or position held Researcher

Main activities and responsibilities Research activities in the field of environment protection and renewable energy sources; Elaboration of project proposals for national and European research programs; Dissemination activities of the research results in scientific papers, publications, books, conferences and workshops

Name and address of employer INCDIE ICPE CA, 313-Splaiul Unirii, Bucharest-3, 030138, Romania

Type of business or sector Environment protection and renewable energy sources

Dates January 2001 – June 2007

Occupation or position held Junior Researcher, Responsible for environment protection in department

Main activities and responsibilities Research activities under national research programs in the field of environment protection (municipal, industrial and hazardous waste incineration); Elaboration of technical specification for “Medical waste incinerator”, “PCBs containing waste incinerator”, “Plastics, organic liquids, municipal waste and sanitary-veterinary waste incinerator”

Ambient air monitoring in urban areas, Elaboration of an integrated system for waste disposal;  
Testing for assessment of the electrical materials resistance in special environments (salt mist, ozone, hydrogen sulphide, sulphur dioxide);

Dissemination activities of the research results in scientific papers, publications, books, conferences and workshops

Name and address of employer SC ICPE SA, 313-Splaiul Unirii, Bucharest-3, 030138, Romania

Type of business or sector Research activities in the field of environment protection

Dates September 1994 – August 1998

Occupation or position held Teacher for high school education

Main activities and responsibilities Practical and theoretical teaching activities in the fields of equipments and technologies for chemical industry, analytical chemistry;  
Elaboration of laboratory procedures for chemical analysis;  
Elaboration of “Workers Safety Norms in Analytical Chemistry Laboratory”

Name and address of employer High School „Petru Poni” Bucharest, Preciziei Street, Bucharest-6

Type of business or sector Teaching activities for high school education

## Education and training

Dates 2007 – 2012

Title of qualification awarded PhD

Principal subjects/occupational skills covered Doctoral studies in the fields of environmental engineering and renewable energy sources, biochemistry and microbiology of the environment, waste and wastewaters treatment technologies  
Title of doctoral thesis: „Studies regarding the energy recovery of organic waste from ethanol industry to obtain high energy value biogas”

Name and type of organisation providing education and training University “Politehnica” of Bucharest, Faculty of Applied Chemistry and Materials Sciences

Dates 1987 - 1993

Title of qualification awarded Diploma of Chemist Engineer

Principal subjects/occupational skills covered	Organic chemistry, instrumental analysis, wastewater treatment technologies, dyes and medicines synthesis technologies																								
Name and type of organisation providing education and training	University "Politehnica" of Bucharest, Faculty of Industrial Chemistry																								
<b>Other specializations</b>	„Environment technologies and European environment legislation”, organized by ICPE SA and ICPET Research SA, 28.05 – 01.06.2001; „Measuring uncertainty assessment in chemical laboratories for environmental pollution analysis”, organized by RENAR, 29-31.10.2001 „Low pollutants emission installations and equipments”, organized by ICPE, 27-28.11.2001; „Preparing and management of European projects”, organized by ICPE Agigea, August 2004; „Integrated management system quality-environment”, organized by ICPE Agigea, 24-30 July 2007; „Integrated system for waste management in accordance with Communities Acquis”, organized by Industry Personnel Training Centre, Busteni, 12-16.03.2007 „Training session under the Dissemination Program for Biogas Technologies from Farm Waste, 05-07.04.2017, organized by Ministry of Waters and Forests																								
<b>Personal skills and competences</b>	Communication skills, adaptability, team spirit																								
Mother tongue(s)	Romanian																								
Self-assessment <i>European level (*)</i>	<table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th colspan="2">Writing</th> </tr> <tr> <th colspan="2">Listening</th> <th colspan="2">Reading</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td>C2</td> <td>C2</td> <td>C2</td> <td>C2</td> <td>C2</td> <td>C2</td> </tr> <tr> <td>A1</td> <td>A2</td> <td>A1</td> <td>A1</td> <td>A2</td> <td>A2</td> </tr> </tbody> </table>	Understanding		Speaking		Writing		Listening		Reading				C2	C2	C2	C2	C2	C2	A1	A2	A1	A1	A2	A2
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A1	A2	A1	A1	A2	A2																				
<b>English</b>																									
<b>French</b>																									
Computer skills and competences	MS Office, Internet, Adobe, PhotoShop																								
Driving licence	Category B vehicle																								
<b>Additional information</b>	Author / coauthor of more than 60 articles and scientific papers in national and international publications. Author of the scientific books <b>Achievements and perspectives in biogas industry</b> , Printech, 2008, <b>Methanogenesis in natural and anthropic processes</b> , Printech 2014																								

(\*) Common European Framework of Reference for Languages

#### Registered patents and patent applications:

- **Patent RO126398B1/30.04.2014** *Sewage sludge treatment procedure to stimulate the activity of methanogenic microorganisms* Author: Mateescu Carmen
- **Patent RO 125902B1/30.04.2014** *Biogas obtaining plant* Authors: Carmen Mateescu, Ionel Chiriță, Nicolae Stancu, Corina Băbuțanu
- **Patent Application A00226/2011** *“Bioreactor for renewables based energy”* Authors: Assmann Allo, Rottmayr Sepp, Carmen Mateescu, Kappel Wilhelm, Klingeis Arnold, Sinca Maria, Tanasescu Florin Teodor, Nate Silviu
- **Patent Application A/00269/2016:** *Process for stimulating biomass and system for producing biogas* Authors: Mateescu Carmen, Lingvay Iosif, Caramitu Alina, Tanase Nicolae, Radu Elena
- **Patent Application A/00324/2016** *Tubular bioreactor with the liquid effluent partial recirculation.* Author: Mateescu Carmen
- **Patent Application A/00053/2018** *Experimental model for testing the biomethane potential of biomass* Authors: Mateescu Carmen, Lipcinski Daniel, Lungulescu Marius, Tanase Nicolae, Torok Liliana
- **Patent Application A/00523** *Process of algal biomass enzymatic pretreatment used for biogas production,* Authors: Mateescu Carmen, Nicula Nicoleta Oana, Eduard-Marius Lungulescu, Torok Liliana, Torok Zsolt

#### National and international awards:

- **Silver Medal** at „The Belgian and International Trade Fair for Technological Innovation” Brussels Eureka, Belgium, Novembre 2010, for the patent application No. A/00616 / 14.07.2010 *“Household biogas unit for rural areas”*, Authors: Carmen Mateescu, Ionel Chirita, Nicolae Stancu, Corina Alice Babutanu;
- **Silver Medal** at Inventika Bucharest 2010, Romania, for the patent application No. A/01046 / 14.12.2009 *“Sewage sludge treatment process for stimulating the activity of methanogens”*, Author: Carmen Mateescu;
- **Bronz Medal** at „Salon International des Inventions”, Geneva, Switzerland, April 2011, for the patent application No. A/00616 /14.07.2010 *“Household biogas unit for rural areas”* Authors: Carmen Mateescu, Ionel Chirita, Nicolae Stancu, Corina-Alice Babutanu;
- **Prize AGIR** 2011, for the research result *“Household biogas unit for rural areas”*, achieved under the project Nucleu No. 0935/2009. The result was transferred to the trade company PRODLACTOSERV SRL;
- **Gold Medal and Excellence Diploma**, at *Pro Invent Cluj-Napoca, Romania, 22-24 March 2017*, for the research result *“Tubular Bioreactor with the liquid effluent partial recirculation”*, Author: Mateescu Carmen
- **Gold Medal** at EUROINVENT, Iasi, Romania, 19 May, 2018, for the patent application No. A/00269/2016: *“Process for stimulating biomass and system for producing biogas”*, Authors: Mateescu Carmen, Lingvay Iosif, Caramitu Alina, Tanase Nicolae, Radu Elena

Date: 19th July, 2018