



## Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s) **Petronela COZMA**  
 E-mail(s) petronela\_cozma@ch.tuiasi.ro; petro.cozma@gmail.com  
 Nationality Romanian  
 Date of birth 29/06/1983  
 Gender Female

### Occupational field

**Chemical and Biological Processes in Biotechnology and Environmental Engineering and Management**  
**PhD in Engineering Sciences: Environmental Engineering, MSc, Diplomat Engineering**

### Work experience

<b>Dates</b>	<b>15/02/2016 – present</b>
<b>Occupation or position held</b>	<b>Assistant professor</b>
Main activities and responsibilities	<b>Courses</b> <i>Analytical Chemistry and Instrumental Analysis</i> (laboratory, student assessment) <i>Environmental monitoring</i> (laboratory, student assessment) <i>Interpersonal Relationship Management</i> (seminar, student assessment) <i>Sustainable industrial production</i> (seminar, student assessment) <i>Sources of Radiation and Protection Technologies</i> (laboratory, seminar, student assessment)
<b>Dates</b>	<b>2010 → present</b>
<b>Occupation or position held</b>	<b>Member</b> of Editorial Production and Secretariat of journal: Environmental and Engineering Management Journal, (IF = 1.008), <a href="http://omicron.ch.tuiasi.ro/EEMJ/">http://omicron.ch.tuiasi.ro/EEMJ/</a>
Main activities and responsibilities	<b>Voluntary work, unpaid:</b> Editorial Production and Secretariat: Electronic correspondence with authors Search of international referrers Receiving of printed copies, sending to the Scientific Advisory Board members, libraries, international exchanges Managing of e-mails from international reviewers and authors in first, second and third(if applicable) peer-reviewed Manual check of possible plagiarism using the anti-plagiarism software Typing text in template journal manuscripts
Name and address of employer	Environmental Engineering and Management Journal, Department of Environmental Engineering and Management under the aegis of Gheorghe Asachi Technical University, 73 Prof. dr. doc. Dimitrie Mangeron Street, 700050 Iasi (Romania)
Type of business or sector	International Journal that publishes reviewed original research papers
<b>Dates</b>	<b>30/09/2016 – present</b>

Occupation or position held	<b>Research assistant</b> within the project entitled “ <b>Strategies and solutions for eco-design and eco-innovation processes and products from recycled materials in the context of circular economy (ECOINDE)</b> “, Contract no. 64BG/2016, Project manager Professor Maria Gavrilescu
Main activities and responsibilities	Assessment of economic and environmental impacts induced by waste generation in industrial systems Screening of eco-innovation and eco-design practices according to the economic agent production profile (SC. RONDOCARTON srl) Choosing of best available techniques Life cycle assessment and cost benefit analysis Developing scenarios for eco-innovation and eco-design of process and product
<b>Dates</b>	<b>01/10/2011 – 03/09/2016</b>
Occupation or position held	<b>Research assistant</b> (under the period 03/10/2012 - 26/03/2013) full time position and <b>Member</b> of research group 01/10/2011 – 03/10/2012, 26/03/2013 – present) part time position, within the project PN-ID-PCE-2011-3-0559, entitled “ <b>Biosorption and Bioaccumulation in the Bioremediation of Environmental Compartments Contaminated with Persistent Pollutants (BIOSACC)</b> “, project manager Professor Maria Gavrilescu
Main activities and responsibilities	Laboratory studies on biosorption / bioaccumulation of heavy metals and persistent organic pollutants Assessment, analysis and interpretation of experimental data Modeling of biosorption and bioaccumulation processes Life cycle assessment and risk assessment Analysis of process performance and cost involved using specific assessment tools (AspenPlus, Chemsys, Gabi softwares) Studies on biosorption and bioaccumulation processes in airlift bioreactors Modeling, simulation and scale up
Name and address of employer	“Gheorghe Asachi” Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. dr. doc. Dimitrie Mangeron Street, 700050 Iasi (Romania)
Type of business or sector	Scientific research
<b>Dates</b>	<b>01/10/2012 – 26/03/2013</b>
Occupation or position held	<b>Assistant Professor</b>
Main activities and responsibilities	<b>Courses:</b> <i>Chemical and Biological Engineering: applications (laboratory, seminars, students evaluation)</i>
Name and address of employer	“Gheorghe Asachi” Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. dr. doc. Dimitrie Mangeron Street, 700050 Iasi (Romania)
<b>Dates</b>	<b>26/03/2013 – 30/09/2013</b>
Occupation or position held	<b>Assistant Professor</b>
Main activities and responsibilities	<b>Courses:</b> <i>Integrated Pollution Prevention and Control: applications (seminars, students evaluations)</i>
Name and address of employer	“Gheorghe Asachi” Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. dr. doc. Dimitrie Mangeron Street, 700050 Iasi (Romania)
Type of business or sector	Academic
<b>Dates</b>	<b>01/10/2009 – 01/10/2012</b>
Occupation or position held	<b>PhD Student</b> under the aegis of EURODOC “Doctoral Scholarships for research performance at European level” project ID_59410, financed by the European Social Found and Romanian Government

Main activities and responsibilities	<ul style="list-style-type: none"> <li>- Participation at an advanced academic training</li> <li>- Elaboration of PhD Thesis entitled: "<i>Decontamination of fluid fluxes in pneumatic contactors</i>" under the supervision Prof. Maria Gavrilescu and Prof. Anton Friedl from Vienna Institute of Technology, which involves: designing and building of an experimental set up, which includes a pneumatic device at laboratory scale (pneumatic contactor with rectangular cross-section), experimental research, modeling and simulations of the applied processes, publishing of scientific papers, participation on national and international conferences.</li> <li>- Research stage performed at Vienna University of Technology, Austria</li> <li>- Writing and sustaining the thesis in English (September 20, 2012, with a very good rating)</li> </ul>
Name and address of employer	"Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. dr. doc. Dimitrie Mangeron Street, 700050 Iasi (Romania)
Type of business or sector	Scientific research
<b>Dates</b>	<b>01/10/2007 - 01/10/2009</b>
Occupation or position held	<b>Shop manager</b>
Main activities and responsibilities	<ul style="list-style-type: none"> <li>- compliance with working hours, fire and safety regulations;</li> <li>- coordination of sellers activity;</li> <li>- cultivating and maintaining professional relationships with clients;</li> <li>- promotion of products according to customers' needs and interests;</li> <li>- correct use of PC, cash register, printer, POS;</li> <li>- resolving different problems arising in relation to customers and sellers, incidents and complaints;</li> <li>- controlling and supervising all activities of sellers during working hours;</li> <li>- creating and maintaining a positive atmosphere in the collective;</li> <li>- prepare the following documents: cash register, report administration, reception of products.</li> </ul>
Name and address of employer	SC BENVENUTI SRL, 36 Bucium Street/21 Bahlui Road, Iassy (Romania)
Type of business or sector	sales
<b>Dates</b>	<b>01/11/2005 - 08/02/2007</b>
Occupation or position held	<b>Shop assistant</b>
Main activities and responsibilities	sale of products, customer guidance and counselling, exposure and arranging the products, cleaning, payments distributors, products administration
Name and address of employer	SC VALGOS SRL, Tudor Vladimirescu Blvd., Iulius Mall, Iassy (Romania)
Type of business or sector	sales
<b>Education and training</b>	
<b>Dates</b>	<b>2012 – 2013</b>
Title of qualification awarded	<b>Graduation certificate of pedagogical training program levels I and II</b> within the Department of Teaching Staff Training, Faculty of Chemical Engineering and Environmental Protection, "Gheorghe Asachi" Technical University of Iasi
Principal subjects / occupational skills covered	Educational Psychology, Pedagogy, Educational Communication, Methodology of curriculum, Classroom Management, Educational Project Management, Teaching technical disciplines, eLearning
<b>Dates</b>	<b>01/10/2009 - 01/10/2012</b>
Title of qualification awarded	<b>PhD in Environmental Engineering, Diploma No. 2645 from 17.01.2013</b>
Principal subjects / occupational skills covered	Elaboration of PhD Thesis with the title: " <i>Decontamination of fluid fluxes in pneumatic contactors</i> " in joint supervision with Vienna Institute of Chemical Engineering, PhD Supervisors: Prof. Maria Gavrilescu and Prof. Anton Friedl
Name and type of organisation providing education and training	"Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management (University), 73 Prof. dr. doc. Dimitrie Mangeron Street, 700050 Iassy (Romania)
Level in national or international classification	ISCED 6
<b>Dates</b>	<b>2007 - 2008</b>

<p>Title of qualification awarded</p> <p>Principal subjects / occupational skills covered</p> <p>Name and type of organisation providing education and training</p> <p>Level in national or international classification</p>	<p><b>Master of Science in Environmental Management, Diploma no. 5214 from 10.09.2009</b></p> <ul style="list-style-type: none"> <li>- Ecology and environmental protection</li> <li>- Environmental audit</li> <li>- Life cycle assessment</li> <li>- Risk estimation and management</li> <li>- Environmental policy making</li> <li>- Cost-profit analysis in environmental protection</li> <li>- Research for dissertation</li> <li>- Sustaining the dissertation on the topic: "Soil contamination by persistent organic pollutants. Case Study: Dioxin Contamination"</li> </ul> <p>Scientific Coordinator: Prof. Dr. Eng. Maria Gavrilescu</p> <p><b>Awarded note: 10</b></p> <p>"Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. dr. doc. Dimitrie Mangeron Street, 700050 Iassy (Romania)</p> <p>ISCED 5</p>
<b>Dates</b>	<b>2002 - 2007</b>
<p>Title of qualification awarded</p> <p>Principal subjects / occupational skills covered</p> <p>Name and type of organisation providing education and training</p> <p>Level in national or international classification</p>	<p><b>Diplomat Engineering, Diploma no. 76311 from 10.07.2008</b></p> <p>The graduation diploma included two parts:</p> <ul style="list-style-type: none"> <li>- <i>research stage</i>, which consisted in the application of efficient methods for removal of persistent organic pollutants from different contaminated media</li> <li>- <i>desing stage</i>, which consisted in the designing of a plant for producing precipitated calcium carbonate, by bubbling carbon dioxide from a thermal plant flue gases, in a suspension of hydrated lime (calcium hydroxide)</li> </ul> <p>Environmental Biodiversity  Analytical Chemistry and Instrumental Analysis  Environmental Microbiology  Fundamentals of Soil Sciences  Chemical and Biochemical Thermodynamic and Kinetics  Transfer Phenomena and Unit Operation  Biotechnologies in Environmental Protection  Waste Treatment, Valorisation and Management  Bioremediation  Technologies and Biotechnologies for Wastewater Treatment  Integrated Pollution Prevention and Control  Technologies for Soil Decontamination</p> <p><b>Note obtained at diploma exam: 10, General average: 10</b></p> <p>"Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering, Department of Environmental Engineering and Management, 73 Prof. dr. doc. Dimitrie Mangeron, 700050 Iassy (Romania)</p> <p>ISCED 5</p>
<b>Dates</b>	<b>1998 - 2002</b>
<p>Title of qualification awarded</p> <p>Principal subjects / occupational skills covered</p> <p>Name and type of organisation providing education and training</p> <p><b>Personal skills and competences</b></p> <p>Mother tongue(s)</p> <p>Other language(s)</p>	<p><b>High Scholl Diploma, No. 33 from 18.07.2002</b></p> <p>Specialization in Chemistry-Biology</p> <p>"Garabet Ibraileanu" High Scholl Iasi (High Scholl), 1 Oastei Stret, Iassy (Romania)</p> <p><b>Romanian</b></p>

Self-assessment  
European level (\*)  
**English**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C2	Proficient user	B1	Independent user	B2	Independent user	B2	Independent user

(\*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences

- Good communication skills gained through my experience as sales manager; PhD student; research assistant; assistant professor; student
- Ability to establish and maintain good working relations with people of different national and cultural backgrounds gained through my work experience abroad and in academic institute
- Extremely organised person gained through my experience as sales manager; PhD student; research assistant; assistant professor

Organisational skills and competences

- Good capacity for coordination and management of human resources gained through my experience as sales manager, being responsible for a team of three people
- Ability to setting goals and deadlines, to integrate new information's in a short time period gained through my experience as PhD student, research assistant; assistant professor

Technical skills and competences

**Research directions:**

- physico-chemical and biological processes applied for the decontamination of liquid and gaseous effluents
- chemical and biological processes applied for the decontamination of environmental polluted with persistent pollutants components (inorganic and organic): biosorption / bioaccumulation of heavy metals and persistent organic pollutants
- modeling, simulation and process design
- integrated pollution prevention and control, sustainable industrial production

**Membership in organizations and professional groups:**

- Member of *Academic Organization of Environmental Engineering and Sustainable Development*;
- Member of *Environmental Engineering and Impact Assessment Research Center*

**Internships and specializations abroad:** 6 months of research stage at Vienna University of Technology, Institute of Chemical Engineering, Vienna, Austria

**Organizing and participating in scientific events:** member in the secretariat of 3 international conferences and participation in over 30 scientific events

**Prizes:**

- **First Prize** for the paper "*Studies on the behavior of persistent organic pollutants into the environment*", presented at Student Scientific Days of the Faculty of Chemical Engineering Iasi, May 2007
- **International prizes (2):** Diploma of Excellence Euroinvent 2013-European Exhibition of Creativity and Innovation (2013); Grand Prize Euroinvent 2012-European Exhibition of Creativity and Innovation (2012)
- **Awarding of research results (3):** •**Petronela Cozma**, Cristina Ghinea, Ioan Mămăligă, Walter Wukovits, Anton Friedl, Maria Gavrilescu, Environmental impact assessment of high pressure water scrubbing biogas upgrading technology, *CLEAN – Soil, Air, Water*, 41(9), 917–927, (2013), identificator PN-II-RU-PRECISI-2014-8-6635; •**Petronela Cozma**, Elena Niculina Drăgoi, Ioan Mămăligă, Silvia Curteanu, Walter Wukovits, Anton Friedl, Maria Gavrilescu, Modelling and optimization of CO<sub>2</sub> absorption in pneumatic contactors using artificial neural networks developed with clonal selection based algorithm, *International Journal of Nonlinear Sciences and Numerical Simulation*, 16(2), 97–110, (2015), identificator PN-II-RU-PRECISI-2015-9-8664; •**Petronela Cozma**, Walter Wukovits, Ioan Mămăligă, Anton Friedl, Maria Gavrilescu, Modeling and simulation of high pressure water scrubbing technology applied for biogas upgrading, *Clean Technologies and Environmental Policy*, 17(2), 373-391, (2015), identificator PN-II-RU-PRECISI-2015-9-8416.

Computer skills and competences

Competent with Microsoft Office programmes, OriginLab, Aspen Software, GaBi 4 Software

**Additional information**

SCIENTIFIC ACTIVITY

15 published papers in ISI ranked journals or in journals included in data bases, peer reviewed,

## Annexes

CNCSIS quoted

**4** book chapters

**30** participation as author on scientific events [**24** international and **6** national (6 of them being oral communication)]

**Total number of citations: 37** according to Web of Science

- Indice HIRSCH: **h= 4.**

Documents available upon request

December 2016

Signature

**Dr.ing Petronela Cozma**

# DR.ENG. Petronela COZMA

## *Scientific activity*

### Papers in journals

#### ISI ranked journals

- 2015** *Modelling and optimization of CO<sub>2</sub> absorption in pneumatic contactors using artificial neural networks developed with clonal selection based algorithm,*  
**Petronela Cozma**, Elena Niculina Drăgoi, Ioan Mămăligă, Silvia Curteanu, Walter Wukovits, Anton Friedl, Maria Gavrilescu,  
*International Journal of Nonlinear Sciences and Numerical Simulation*, **16(2)**, 97–110, ISSN (Online) 2191-0294, ISSN (Print) 1565-1339, DOI: 10.1515/ijnsns-2014-005.
- Modeling and simulation of high pressure water scrubbing technology applied for biogas upgrading,*  
**Petronela Cozma**, Walter Wukovits, Ioan Mămăligă, Anton Friedl, Maria Gavrilescu,  
*Clean Technologies and Environmental Policy*, **17(2)**, 373-391, DOI: 10.1007/s10098-014-0787-7.
- Potential of biosorption and bioaccumulation processes for heavy metals removal in bioreactors,*  
Mihaela Rosca, **Raluca-Maria Hlihor**, Petronela Cozma, Elena-Diana Comăniță, Isabela Maria Simion, Maria Gavrilescu,  
*E-Health and Bioengineering Conference (EHB)*, ISBN: 978-1-4673-7544-3, pp. 1-4, 2015,  
DOI: 10.1109/EHB.2015.7391487
- 2013** *Environmental impact assessment of high pressure water scrubbing biogas upgrading technology,*  
**Petronela Cozma**, Cristina Ghinea, Ioan Mămăligă, Walter Wukovits, Anton Friedl, Maria Gavrilescu,  
*CLEAN – Soil, Air, Water*, **41(9)**, 917–927, DOI: 10.1002/clen.201200303.
- Analysis and modeling of the solubility of biogas components in water for physical absorption processes,*  
**Petronela Cozma**, Walter Wukovits, Ioan Mămăligă, Anton Friedl, Maria Gavrilescu,  
*Environmental Engineering and Management Journal*, **12(1)**, 147-162.
- Comparison of combined ethanol and biogas polygeneration facilities using exergy analysis,*  
**Petronela Cozma**, Maria Gavrilescu, Anton Friedl,  
*Environmental Engineering and Management Journal*, **12(8)**, 1575-1582.
- 2012** *Analysis and management of specific processes from environmental engineering and protection based on sustainability indicators,*  
Maria Emiliană Fortună, Isabela Maria Simion, Cristina Ghinea, Madalina Petraru, **Petronela Cozma**, Laura Carmen Apostol, Raluca-Maria Hlihor, Dana Tudorache Fertu, Maria Gavrilescu,  
*Environmental Engineering and Management Journal*, **11(2)**, 333-350.
- Airlift reactors: applications in wastewater treatment,*  
**Petronela Cozma**, Maria Gavrilescu,  
*Environmental Engineering and Management Journal*, **11(8)**, 1505-1515.
- Aerobic biodegradation of phenol by activated sludge in a batch reactor,*  
**Petronela Cozma**, Raluca-Maria Hlihor, Laura Carmen Apostol, Mariana Diaconu, Manuela Olga Pogacean, Maria Gavrilescu,  
*Environmental Engineering and Management Journal*, **11(11)**, 2053-2058.
- 2010** *Airlift reactors: hydrodynamics, mass transfer and applications in environmental remediation,*  
**Petronela Cozma**, Maria Gavrilescu,  
*Environmental Engineering and Management Journal*, **9(5)**, 681-702.

#### Journals included in data bases, peer reviewed, CNCSIS

- 2012** *Biogas upgrading using water scrubbing technology,*  
**Petronela Cozma**, Walter Wukovits, Anton Friedl, Maria Gavrilescu,  
*Bulletin of the Polytechnic Institute of Jassy*, **Tome LVIII (LXII), Fasc. 1**, 58-73.

**2010** *Pneumatic (bio)reactors applied in environmental protection,*  
**Petronela Cozma**, Maria Gavrilescu,  
*Bulletin of the Polytechnic Institute of Jassy, Tome LVI (LX), Fasc. 2, 57-76.*

*Removal of CO<sub>2</sub> from gas streams in airlift reactors,*  
**Petronela Cozma**, Maria Gavrilescu,  
*Bulletin of the Polytechnic Institute of Jassy, Tome 56(4), 149-160.*

*Thermodynamic study of Cd(II) sorption on soil,*  
Raluca-Maria Hlihor, **Petronela Cozma**, Cristina Ghinea, Vasile Lucian Pavel, Brîndușa Mihaela Robu,  
Maria Gavrilescu,  
*Scientific papers - Agronomy Series, 53(2), „Ion Ionescu de la Brad”, University of Agricultural  
Sciences and Veterinary Medicine, „Ion Ionescu de la Brad” Publishing House”, 92-95, ISSN 1454-7414.*

## Papers published in Conference and Symposia Proceedings

**2010** *Airlift bioreactors for pulp and paper effluents treatment and management,*  
**Petronela Cozma**, Maria Gavrilescu,  
*Proceedings of the 14th International Symposium on Cellulose Chemistry and Technology, 8-10  
September, 2010, Iasi, Romania, 226-231, ISBN 978-973-621-306-9*

## Book chapters

**2016** Chapter 5. *Biosorption and Bioaccumulation of Heavy Metals*  
Raluca-Maria Hlihor, Laura Bulgariu, Mariana Diaconu, **Petronela Cozma**, Maria Gavrilescu  
In: *Biosorption and Bioaccumulation - Principles and Applications in Environmental Bioremediation*  
ISBN: 978-973-621-457-8

Chapter 7. *Biosystems and Bioreactors*  
**Petronela Cozma**, Raluca-Maria Hlihor, Laura Carmen Apostol  
In: *Biosorption and Bioaccumulation - Principles and Applications in Environmental Bioremediation*  
ISBN: 978-973-621-457-8

Chapter 8. *Models and Predictability, Application and Reliability*  
**Petronela Cozma**, Maria Gavrilescu, Isabela Simion  
In: *Biosorption and Bioaccumulation - Principles and Applications in Environmental Bioremediation*  
ISBN: 978-973-621-457-8

**2014** *Key features of contaminated soils,*  
**Petronela Cozma, Maria Gavrilescu,**  
In: *Contaminated soils: A guide to sampling and analysis*, February 2014, Pages 6-17,  
Doi: 10.4155/ebo.13.534.

## Oral Communications and Posters

### *International conferences and symposia*

**2016** *Screening of microorganisms for cadmium(II) removal from liquid effluents,*  
Mihaela Rosca, R.M. Hlihor, **Petronela Cozma**, M. Diaconu, T. Tavares, M. Gavrilescu,  
**International Conference of Applied Sciences**, 02-04 June 2016, Bacau, Romania

*Biosorbents effectiveness in the removal of heavy metals from aqueous solutions in bioreactors,*  
Mihaela Rosca, Raluca Maria Hlihor, **Petronela Cozma**, Mariana Diaconu, Maria Gavrilescu,  
**International Conference of Applied Sciences**, 02-04 June 2016, Bacau, Romania.

*Reduction of recyclable waste by promoting product eco-design,*  
Teofil Câmpean, Elena Diana Comăniță, Isabela Maria Simion, **Petronela Cozma**, Camelia



Smaranda, Cristina Ghinea, Maria Gavrilescu

**3<sup>rd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, (ICCE 2016), 9-11 November 2016, "Gheorghe Asachi" Technical University of Iași, Faculty of Chemical Engineering and Environmental Protection, ALUMNI –Association of Faculty of Chemical Industry, Iasi, Romania.

**Poster**

*Sustainable industrial production in cement industry: characterization, perspectives and challenges*,  
**Petronela Cozma**, G. Ropcean, M. Rosca, I.M. Simion, R.M. Hlihor, M. Gavrilescu

**3<sup>rd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, (ICCE 2016), 9-11 November 2016, "Gheorghe Asachi" Technical University of Iași, Faculty of Chemical Engineering and Environmental Protection, ALUMNI –Association of Faculty of Chemical Industry, Iasi, Romania.

*Soil pollution control and sustainable remediation strategies*,

Camelia Smaranda, Elena Diana Comaniță, **Petronela Cozma**, Maria Gavrilescu

**3<sup>rd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, (ICCE 2016), 9-11 November 2016, "Gheorghe Asachi" Technical University of Iași, Faculty of Chemical Engineering and Environmental Protection, ALUMNI –Association of Faculty of Chemical Industry, Iasi, Romania.

**Poster**

*Tolerance and adaptability of some microorganisms in soils contaminated with PCBs*,

Mariana Diaconu, **Petronela Cozma**, Raluca Maria Hlihor, Maria Gavrilescu

**3<sup>rd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, (ICCE 2016), 9-11 November 2016, "Gheorghe Asachi" Technical University of Iași, Faculty of Chemical Engineering and Environmental Protection, ALUMNI –Association of Faculty of Chemical Industry, Iasi, Romania.

**Poster**

**2015**

*Studies on performances of pneumatic contactors with applications in environmental protection*,  
**Petronela Cozma**, Mihaela Roșca, Raluca Maria Hlihor, Isabela Maria Simion, Maria Gavrilescu,  
**The Second CommScie International Conference: "Challenges for Sciences and Society in Digital Era"**, 4-5 December, 2015, Al.Ioan Cuza University of Iasi, Romania.

*Potential of microorganisms for the removal of heavy metals from the environment*,

Mihaela Rosca, Raluca Maria Hlihor, **Petronela Cozma**, Mariana Diaconu, Elena Diana Comaniță,  
Maria Gavrilescu

**The Second CommScie International Conference: "Challenges for Sciences and Society in Digital Era"**, 4-5 December, 2015, Iasi, Al.Ioan Cuza University of Iasi, Romania.

*Impact evaluation of two proposed scenarios as to reduce/recycle solid waste*,

Isabela Maria Simion, **Petronela Cozma**, Mihaela Roșca, Diana Elena Comanita, Maria Gavrilescu,  
Alessandra Bonoli

**The Second CommScie International Conference: "Challenges for Sciences and Society in Digital Era"**, 4-5 December, 2015, Al.Ioan Cuza University of Iasi, Romania.

*Potential of biosorption and bioaccumulation processes for heavy metal removal in bioreactors*,

Mihaela Rosca, Raluca–Maria Hlihor, **Petronela Cozma**, Elena–Diana Comaniță, Maria Gavrilescu,  
**5<sup>th</sup> International Conference on e-Health and Bioengineering, EHB 2015**, 19-21 November  
2015, Grigore T. Popa University of Medicine and Pharmacy of Iași and Romanian Society of Medical  
Bioengineering, Iasi, Romania.

**Poster**

*Characterization of a split-channel rectangular airlift reactor for application in efficient decontamination of gaseous effluents*,

**Petronela Cozma**, Mihaela Roșca, Camelia Smaranda, Raluca Maria Hlihor, Ioan Mămăligă, Maria  
Gavrilescu,

**8<sup>th</sup> International Conference on Environmental Engineering and Management**, September  
9-12, "Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and  
Environmental Protection, Iasi, Romania.

**Poster**

**2014**

*Risk assessment of municipal solid waste landfilling*,

Cristina Ghinea, Diana Elena Comanita, Isabela Maria Simion, **Petronela Cozma**, Maria Gavrilescu,  
**Second International Conference on NATURAL AND ANTHROPIC RISKS ICNAR2014**,

4-7 June 2014, Bacau, Romania.

**Oral communication**

*Comparison of ALR, BC and packed column performances used for CO<sub>2</sub> removal from gas mixtures,*  
**Petronela Cozma**, Walter Wukovits, Isabela Maria Simion, Raluca-Maria Hlihor, Anton Friedl, Ioan Mămăligă, Maria Gavrilăscu,

**2<sup>nd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, 5-8 November 2014, Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Alumni Association of Faculty of Industrial Chemistry, Iasi, Romania.

**Poster**

*A comparative life cycle assessment of three types of agricultural waste applied for Cd(II) biosorption,*  
Raluca-Maria Hlihor, Isabela Maria Simion, Cristina Ghinea, Diana Comanita, Laura Carmen Apostol,  
**Petronela Cozma**, Maria Gavrilăscu,

**2<sup>nd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, 5-8 November 2014, Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Alumni Association of Faculty of Industrial Chemistry, Iasi, Romania.

**Poster**

*Evaluation of solid waste management scenarios using analytic hierarchy process (AHP) technique,*  
Cristina Ghinea, Diana Elena Comanita, Madalina Petraru, **Petronela Cozma**, Maria Gavrilăscu,  
**2<sup>nd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, 5-8 November 2014, Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Alumni Association of Faculty of Industrial Chemistry, Iasi, Romania.

**Poster**

*Sustainability indicators associated to the ecological footprint in construction and demolition waste management,*

I.M. Simion, S. Zanni, R.M. Hlihor, **P. Cozma**, D.L. Sobariu, S. Bamonti, A. Bonoli, M. Gavrilăscu,  
**2<sup>nd</sup> International Conference on Chemical Engineering, Innovative Materials and Processes**, 5-8 November 2014, Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection, Alumni Association of Faculty of Industrial Chemistry, Iasi, Romania.

**Poster**

**2013**

*Modelling and optimization of CO<sub>2</sub> absorption in pneumatic contactors using artificial neural networks developed with clonal selection based algorithm,*

**Petronela Cozma**, Ioan Mămăligă, Elena Niculina Drăgoi, Silvia Curteanu, Walter Wukovits, Anton Friedl, Maria Gavrilăscu,

**The 7<sup>th</sup> International Conference Environmental Engineering and Management, Integration Challenges for Sustainability**, September 18 – 21, Vienna, Austria.

**Oral communication**

**2012**

*Analysis of the environmental impact of water scrubbing technology applied for biogas upgrading based on LCA methodology,*

**Petronela Cozma**, Walter Wukovits, Ghinea Cristina, Ioan Mamaliga, Anton Friedl, Maria Gavrilăscu,  
**The „20<sup>th</sup> European Biomass Conference and Exhibition”, MiCo - Milano Congress Center**, 18 June 2012, Milan, Italy.

**Oral communication**

*Aerobic biodegradation of phenol by activated sludge in a batch reactor,*

**Petronela Cozma**, Raluca-Maria Hlihor, Mariana Diaconu, Maria Gavrilăscu,  
**„100<sup>th</sup> Anniversary of Faculty of Chemical Engineering and Environmental Protection”, Centenary of Education in Chemical Engineering Conference**, 28-30 November, 2012, Iasi – Romania, Organized by: “Gheorghe Asachi” Technical University din Iasi, Faculty of Chemical Engineering and Environmental Protection, Doctoral Scholl of Faculty of Chemical Engineering and Environmental Protection, Association of Faculty of Chemistry - ALUMNI.

**Poster**

**2011**

*Exchanging ideas on renewable energy supply for the future,*

Bettina Liebmann, Orestis Almpanis Lekkas, **Petronela Cozma**, Stefan Koppatz,  
Workshop on “**Open space future - energy solutions case study contest 2011**”, organized by Institute of Chemical Engineering, Vienna University of Technology.

## Oral communication

- 2010** *Thermodynamic study of Cd(II) sorption on soil,*  
Raluca-Maria Hlihor, **Petronela Cozma**, Cristina Ghinea, Vasile Lucian Pavel, Brîndușa Mihaela Robu, Maria Gavrilăscu,  
**International Conference of "Durable Agriculture-Present and Perspectives"**, 21-23 October, 2010, Iași, România.  
**Poster**
- Airlift bioreactors for pulp and paper effluents treatment and management,*  
**Petronela Cozma**, Maria Gavrilăscu,  
**The 14<sup>th</sup> International Symposium on Cellulose Chemistry and Technology**, 8-10 September, 2010, Iasi, Romania.  
**Poster**

## National conferences and symposia

- 2015** *(Bio)remediation of heavy metals contaminated effluents in mechanical and pneumatic mixed systems,*  
Mihaela Rosca, Raluca Maria Hlihor, Elena Diana Comanita, Petronela Cozma, Isabela Maria Simion, Mariana Diaconu, Maria Gavrilăscu  
**"Alexandru Ioan Cuza" University Days, Faculty Of Chemistry Conference**, 29 – 31 October 2015, Iasi, Romania.  
**Poster**
- Dynamic behaviour of organic pollutants in the soil matrix - the influence of main parameters,*  
Camelia Smaranda, Mihaela Roșca, **Petronela Cozma**, Maria Gavrilăscu,  
**"Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference**, 29 – 31 October 2015, Iasi, Romania.  
**Poster**
- 2012** *Decontamination of fluid fluxes in pneumatic contactors,*  
**Petronela Cozma**,  
**Exploratory Workshop: Progress in Environmental Engineering, Biotechnology and Management in the Frame of Knowledge-Based Sustainable Economy**, 19-21 September, Iasi, Romania.  
**Oral communication**
- 2011** *Biogas upgrading using water scrubbing technology,*  
**Petronela Cozma**, Walter Wukovits, Anton Friedl, Maria Gavrilăscu,  
**Days of Faculty of Chemical Engineering and Environmental Protection**, Eight Edition, 17-18 November, 2011, Iasi, Romania.  
**Poster**
- 2010** *Removal of CO<sub>2</sub> from gas streams in airlift reactors,*  
**Petronela Cozma**, Maria Gavrilăscu,  
**Days of Faculty of Chemical Engineering and Environmental Protection**, Seventh Edition, November 17-19, 2010, Iasi, Romania.  
**Poster**
- 2009** *Pneumatic (bio)reactors applied in environmental protection,*  
**Petronela Cozma**, Maria Gavrilăscu,  
**Days of the Faculty of Chemical Engineering and Environmental Protection**, November 18-20, 2007, Iasi, Romania.  
**Oral communication**

## Conferences, workshops, member în organising committees

- 2016** **Student Scientific Circles session in May 2016, Section Environmental Engineering**  
Event organized by the Faculty of Chemical Engineering and Environmental Protection, " Gh Asachi" Technical University of Iasi, 16 – 20 May 2016, Iasi, Romania.  
**Secretary of Environmental Engineering Section**
- 2015** **8<sup>th</sup> International Conference on Environmental Engineering and Management**  
International conference organized by Department of Environmental Engineering and Management,

Faculty of Chemical Engineering and Environmental Protection, "Gheorghe Asachi" Technical University of Iasi, September 9 – 12, 2015, Iasi, Romania.

- 2013**      **7<sup>th</sup> International Conference on Environmental Engineering and Management - Integration Challenges for Sustainability**  
International conference organized by Institute of Chemical Engineering, Thermal Process Engineering and Simulation Research Division, Vienna, Austria and Department of Environmental Engineering and Management, Faculty of Chemical Engineering and Environmental Protection, "Gheorghe Asachi" Technical University of Iasi, September 18 – 21, 2013, Vienna, Austria.
- 2012**      **Progress in Environmental Engineering, Biotechnology and Management in the Frame of Knowledge-Based Sustainable Economy**  
Exploratory Workshop organized within the Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, September 19-21, Iasi Romania.

## Research Reports

- 2016**      *Research report within BRIDGE project, PN III-P2-2.1-BG-2016-0130, contract 64BG/2016*  
**Strategies and solutions for eco-design and eco-innovation processes and products from recyclable material in the context of circular economy (ECOINDE)**  
Project Director Prof.dr.ing. Maria Gavrilescu  
**December 2016**
- Research report within IDEI project, PN-II-ID-PCE-2011-3-0559, contract 265/5.10.2011*  
**Biosorption and bioaccumulation in the bioremediation of environmental compartments contaminated with persistent pollutants (BIOSACC)**  
Project Director Prof.dr.ing. Maria Gavrilescu  
**September 2016**
- 2012**      *Research report within IDEI project, PN-II-ID-PCE-2011-3-0559, contract 265/5.10.2011*  
**Biosorption and bioaccumulation in the bioremediation of environmental compartments contaminated with persistent pollutants (BIOSACC)**  
Project Director Prof.dr.ing. Maria Gavrilescu  
**November 2012**
- 2011**      *Research report within IDEI project, PN-II-ID-PCE-2011-3-0559, contract 265/5.10.2011*  
**Biosorption and bioaccumulation in the bioremediation of environmental compartments contaminated with persistent pollutants (BIOSACC)**  
Project Director Prof.dr.ing. Maria Gavrilescu  
**December 2011**
- 2012**      *Scientific research report during doctoral studies within POSDRU/88/1.5/S/59410 project - EURODOC – ID 59410*  
**Studies on absorption and biodegradation processes of organic and inorganic compounds from contaminated fluid flows in pneumatic contactors**  
**May 2012**
- 2011**      *Scientific research report during doctoral studies within POSDRU/88/1.5/S/59410 project - EURODOC – ID 59410*  
**Modeling and simulation of processes applied to the remediation of contaminated fluid streams with organic and inorganic compounds in pneumatic contactors**  
**September 2011**
- 2010**      *Scientific research report during doctoral studies within POSDRU/88/1.5/S/59410 project - EURODOC – ID 59410*  
**Decontamination of fluid fluxes in pneumatic contactors**  
**September 2010**

## Member of national research grants

- 2016-2018** **PN III-P2-2.1-BG-2016-0130, contract 64BG/2016**  
***Strategies and solutions for eco-design and eco-innovation processes and products from recyclable material in the context of circular economy (ECOINDE)***  
Project Director Prof.dr.ing. Maria Gavrilescu  
**Research assistant and member of research group**
- 2011-2016** **PN-II-ID-PCE-2011-3-0559, contract 265/5.10.2011**  
***Biosorption and bioaccumulation in the bioremediation of environmental compartments contaminated with persistent pollutants (BIOSACC)***  
Project Director Prof.dr.ing. Maria Gavrilescu  
**Research assistant and member of research group**
- 2012** **PN-II-ID-WE-2012-4-062, contract 60/16.08.2012**  
***Progress in Environmental Engineering, Biotechnology and Management in the Frame of Knowledge-Based Sustainable Economy***  
Exploratory Workshop organized within the Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, September 19-21, Iasi Romania, Prof.univ.dr.ing. Maria Gavrilescu; Co-organizator: Institute of Chemical Engineering, Thermal Process Engineering and Simulation Research Division, Vienna, Austria, Prof.univ.dr.ing. Anton Friedl.  
**Member of the organizing committee**
- 2009-2012** **POSDRU/88/1.5/S/59410**  
***EURODOC "Doctoral Scholarships for research performance at European level" project, financed by the European Social Found and Romanian Government***  
**Member of the target group**

Date  
**December, 2016**

Signature,  
Assoc. prof.Dr. Eng. **Petronela COZMA**