

PERSONAL INFORMATION

Cecilia ARSENE

 "Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, 11 Carol I, 700506 Iasi, Romania

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Gender Femail Nationality Romanian

CURRENT POSITION

Profesor, PhD Habil.

¹"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory

²"Alexandru Ioan Cuza" University of Iasi, Integrated Center of Environmental Science Studies in the North Eastern Region – CERNESIM, Romania

WORK EXPERIENCE

- 08/2017 - present Director of the Doctoral School in Chemistry
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, <http://www.chem.uaic.ro/ro/doctorat/>
Management and coordination
- 02/2015 - present Professor, PhD Habil.
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, Romania, <http://www.uaic.ro/>
Teaching activities (lectures, seminar, and laboratory application); Research activities; Referee of bachelor, master and PhD thesis; Coordinator of diploma thesis; Coordinator of PhD students
Analytical chemistry, Environmental chemistry
- 07/2017-08/2017 Invited professor
Laboratory of Excellence CaPPA - Chemical and Physical Properties of the Atmosphere, CNRS, Université Lille Sciences et technologies, IMT Lille Douai, ULCO, CNES, <http://www.labex-cappa.fr/>
Seminar; Research activities;
<http://mailchi.mp/8f860d305cbf/newsletter-labex-cappa-juillet?e=b33d2aa12d>
Kinetic studies of selected superior unsaturated alcohols ozonolysis; Gas phase chemistry
- 02/2013 – 02/2015 Associated professor, PhD
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, Romania, <http://www.uaic.ro/>
Teaching activities (lectures, seminar, and laboratory application); Research activities; Referee of bachelor, master and PhD thesis
Analytical chemistry, Separation techniques and chromatographic methods, Environmental chemistry
- 08/2011 - 09/2011 Invited researcher
The Ecole Nationale Supérieure des Techniques Industrielles et des Mines de Douai, 941 rue Charles Bourseul, 59508 Douai, Cedex, France
Ozonolysis product study of a series of alkenes
Atmospheric chemistry
- 10/2008 - present Head of LAICA unit
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Laboratory of Analytical Chemistry and Instrumental Analysis, Romania, <http://www.uaic.ro/>
Head of LAICA unit by decision no. 19631/17.10.2008 emitted by the Rector of the "Alexandru Ioan Cuza" University of Iasi, Romania. Undertaken responsibilities for the implementation of the quality management system such as the laboratory to perform activities fully in agreement with the requirements of the EN ISO CEI 17025/2005 standard and other interrelated standards. LAICA's quality management system certified by the Romanian Association for Accreditation, RENAR, by the Certificate No. LI 820/05.10.2009
Accreditation certificate No. LI 820/05.10.2009



- 10/2007-09/2010 Researcher, PhD
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, Romania, <http://www.uaic.ro/>
Reintegration Grant at the "Alexandru Ioan Cuza" University of Iasi, Romania, by the MERG-CT Action within the FP7 Programme (project MERG-CT-2007-203934 ICAARUS, Intensive Characterisation of Atmospheric Aerosols in the North-Eastern Romania at Various Urban Sites)
Research scientist on a subject related to the estimation of the temporal and spatial distribution in the mass concentration and chemical composition of the aerosols in the ambient air of Iasi, North Eastern Romania. Main research work focussed on field and laboratory investigations
Atmospheric chemistry
- 07/2005 - 07/2007 Postdoctoral fellow
University of Crete, Heraklion, Greece, Environmental Chemical Processes Laboratory
Postdoctoral Fellow at the University of Crete, Heraklion, Greece, Environmental Chemical Processes Laboratory, by the Marie Curie Intra-European Fellowship Action within the FP6 Programme (project MEIF-CT-2005-009578 ECITAMA, Evaluation of the Chemical Impact of Aerosols in the Mediterranean Area).
Main research work focussed on field measurements (atmospheric liquid, gas and particulate phase). Development and implementation of specific methods for the quantification of tropospheric organic traces. Sources apportionment. Chemical reactivity of organic species present in the atmosphere. Multidimensional statistical analysis of experimental data
Atmospheric chemistry
- 02/2003 -02/2013 University Lecturer, PhD
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, Romania, <http://www.uaic.ro/>
Teaching activities (lectures, seminar, and laboratory application); Research activities; Referee of bachelor and master thesis
Analytical chemistry, Environmental chemistry
- 02/1999 -02/2003 Assistant professor
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, Romania, <http://www.uaic.ro/>
Teaching activities (lectures, seminar, and laboratory application); Research activities; Referee of bachelor and master thesis
Analytical chemistry, Environmental chemistry
- 03/1998 - 03/2002 PhD Student
Bergische Universität Gesamthochschule Wuppertal, Department of Physical Chemistry, Germany
PhD student at the Bergische Universität Gesamthochschule Wuppertal, Germany, Physical Chemistry Department. Main research work devoted to laboratory and photo-smog chamber investigation (kinetic and mechanistic investigation on the gas phase atmospheric degradation of organic chemical compounds bearing sulphur atom in their molecule).
Development of reaction mechanisms for the degradation of gas phase chemicals under photo-oxidative conditions.
Long-path spectroanalytical techniques (FTIR) used for the investigation under simulated atmospheric conditions of gaseous organic pollutants in large glass/quartz vessel reactors (1080 L quartz reactor). Use of analytical equipments for solar radiation intensity measurements. Use of monitors: CO, NOx, O3. Equipments for aerosol measurements (counters and scanning mobility particle sizer). Use of ion chromatography (IC) for the investigation of instable reaction intermediates (e.g. methane sulphonic acid). Laboratory work activities with students from Bergische Universität Gesamthochschule Wuppertal, Germany.
In 01/1999 promoted as assistant professor, Alexandru Ioan Cuza University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, Romania
Chemistry and physics of the atmosphere
- 10/1996 – 02/1999 Assistant
"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Department of Chemistry, Analytical Chemistry Laboratory, Romania, <http://www.uaic.ro/>
Teaching activities (lectures, seminar, and laboratory application); Research activities
Analytical chemistry



EDUCATION AND TRAINING

07/04/2014	Habilitation "Alexandru Ioan Cuza" University of Iasi, Doctoral School in Chemistry, 11 Carol I, 700506 Iasi, Romania; Defence of the Habilitation Thesis "Progress in Environmental Chemistry. Laboratory and Field Interrelated Studies". Recognition of the Habilitation degree by the MO No. 166/07.04.2014, The General Department for Higher Education, Romanian Ministry of Education and Scientific Research. Chemistry
07/2005 - 07/2007	Postdoctoral research Postdoctoral Fellow at the University of Crete, Heraklion, Greece, Environmental Chemical Processes Laboratory, Marie Curie Intra-European Fellowship Action within the FP6 Programme (MEIF-CT-2005-009578 ECITAMA, Evaluation of the Chemical Impact of Aerosols in the Mediterranean Area)
03/1998 - 03/2002	PhD studies Bergische Universität Gesamthochschule Wuppertal, Department of Physical Chemistry, Germany; PhD title, „Doktors der Naturwissenschaften“ (Dr. Rer. Nat.) emitted by the Bergische Universität Gesamthochschule Wuppertal, Germany, from December 14th 2001. Recognition of the PhD title proved by the certificate No. 2921/11.11.2002 emitted by the Romanian Ministry of Education and Scientific Research.
10/1995 - 06/1996	Master studies "Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Master studies in Inorganic Chemistry – Synthesis, Structure and Reactivity of Inorganic Compounds, Alexandru Ioan Cuza University of Iasi, Faculty of Chemistry. Master certificate Serial No. B 0001927 emitted as a result of the dissertation defence undertaken in June 1996. Registered emission of certificate with the indicative 127/28.01.1998
10/1990-06/1995	Bachelor studies "Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry; Bachelor in Chemistry, Alexandru Ioan Cuza University of Iasi, Faculty of Chemistry, Romania. Chemist. Bachelor certificate Serial No. N 004327, emitted as a result of the committee decision for the bachelor defence undertaken in June 1995. Registered emission of certificate with the indicative 1604/06.03.1997
09/1985-06/1989	Baccalaureate Petru Rares High School of Mathematic and Physic, Piatra Neamt, Neamt, Romania. Baccalaureate certificate Serial No. G 47052, emitted as a result of the graduation exams undertaken in June 1989. Registered emission of certificate with the indicative 152/01.07.1989

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	B2	B2	B2	B2	B2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user, Common European Framework of Reference for Languages

Organisational / managerial skills	Head of LAICA unit (a laboratory certified by RENAR, trace metal analysis), Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi Coordinator of the Laboratory of Chemistry, Integrated Center of Environmental Science Studies in the North Eastern Region, "Alexandru Ioan Cuza" University of Iasi, 11 Carol I, Iasi, 700506, Romania (POSCCE-A2-O2.2.1-2009-4, ID 901, SMIS 13984, Contract: 257/28.09.2010, https://www.erris.gov.ro/cernesim.uaic.ro) Coordinator of the Air Quality Monitoring Station (AMOS) of CERNESIM, UAIC (site dedicated for field measurements of various atmospheric parameters: particulate matter, noxes, meteorological variables, etc.) Coordinator of national and international projects
Administrative skills	Member of the ethic committee for education and research, "Alexandru Ioan Cuza" University of Iasi, Romania, 02/2014-02/2017 Member of the scientific committee within the "Integrated Center of Environmental Science Studies in the North Eastern Region", "Alexandru Ioan Cuza" University of Iasi, Romania, 10/2014-present. Member of the Faculty of Chemistry Council, "Alexandru Ioan Cuza" University of Iasi, Romania, 01/2012-12/2015

Job-related skills	Responsibility, ability to work with deadlines, ability to work in a multidisciplinary and multifunctional team
Teaching skills	<p>Lectures for students at the Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, for: Management quality in chemical analysis. ISO Requirements (2013-present, Master Environmental Chemistry and Food Safety, 2nd year), Separation methods and trace analysis (Chemistry, 3rd year, 2010-present); Analytical chemistry methods in forensic chemistry (2011-present, Faculty of Law, Master in Forensic, 1st year), Chromatographic techniques in drugs and cosmetic products analysis (2009-2012, Master Cosmetic and Pharmaceutical Products Control, 1st year), Sampling and methodologies in environmental investigation (2008-2009, Master Environmental Chemistry and Food Safety), Instrumental strategies applied in chemical system investigation (2008-2009, Master Environmental Chemistry and Food Safety), Environmetry/chemometry (2007-2009, Master), Quality control in chemical analysis (2007-2009, Chemistry, 3rd year), Analytical control of materials (2003-2004, Master), Spectroanalytical methods (2003-2004, Master), Sampling and strategies of environment monitoring (2002-2003, Master Environmental Chemistry, English module), Chemometry applied in environmental investigation (2002-2003, Master Environmental Chemistry, English module)</p> <p>Seminars and laboratory work coordination for students at the Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, for: Management quality in chemical analysis. ISO Requirements; Separation methods and trace analysis (proposal of laboratory practical applications); Chromatographic techniques in drugs and cosmetic products analysis (proposal of laboratory practical applications in collaboration); Analytical chemistry methods in forensic chemistry (proposal of laboratory practical applications); Instrumental strategies applied in chemical system investigation (proposal of laboratory practical applications); Sampling and strategies of environment monitoring (proposal of laboratory practical applications); Environmetry/chemometry (seminar); Quality control in chemical analysis (proposal of laboratory practical applications in collaboration); Analytical control of biotechnological processes (proposal of laboratory practical applications); Analytical chemistry (1st year, Chemistry area); Instrumental analysis (2nd year, Chemistry area).</p> <p>Laboratory work with students from Bergische Universität Gesamthochschule Wuppertal, Germany.</p>
Research activities coordination skills	<p>Coordination of PhD students: 3 (1 cotutelle)</p> <p>Coordination of master thesis: 14</p> <p>Coordination of bachelor diploma thesis: 17</p>
Research interest	<p>Environment (Atmospheric aerosols chemistry, Atmospheric chemistry with focus on troposphere composition and climate change due to human activities and on gas/particle interactions, Organic and inorganic pollutants present in air, water, soil, Kinetics, reactivity and mechanistic investigation of photochemically induced oxidation processes of organic compounds under the action of OH, NO₃ radicals, Cl atoms and other oxidative species (gaseous and liquid phase, Environmental analytical chemistry of persistent organic pollutants)</p> <p>Instrumental analysis techniques (Chromatographic techniques tandem mass spectrometry (GC-MS, HPLC-MS) in the analyses of specific analytes from various natural matrices (air, water, soil, biological matrices, drugs), Microscopic and spectrophotometric techniques</p> <p>New materials for decontamination processes (Development and characterisation of materials for solid phase extraction in the form of stationary phases (polyoxometalates) and polymer inclusion membranes)</p> <p>Health related aspects (Mechanistic interrelated behaviour of biochemical parameters in pulmonary infectious diseases (tuberculosis, etc); Chemical constituents of the atmosphere (aerosols, VOCs) and possible implications for the human health)</p>
Technical skills	<p>Expertize in clearly discriminating the chemical composition of aerosols. Expertize in method development/optimisation suitable for measuring traces organic species in the troposphere. Expertize for field measurements of organic and inorganic pollutants with appropriate discrimination of emission sources. Expertize in using in various applications (calibration, identification and separation) chromatographic techniques such as IC, GC-FID-MS, GC-FID-MS-TDS, GC-ECD, GC-GC-MS, HPLC. Expertize in using in situ long path spectroscopic techniques (FT-IR) for the determination and quantification of gaseous chemical pollutants in reaction chambers suitable for the simulation of the atmosphere. Expertize in use of spectrophotometric techniques (UV-vis), atomic absorption spectroscopic techniques (ContrAA 700 with flame and graphite furnace) for the characterisation of various matrices. Expertize in using instruments for aerosol characterisation such as scanning mobility particle sizer analyser and thermo-optical analyser for OC-EC discrimination. Extensive experience in operating large volume quartz indoor photoreactors. Operation of the large volume Teflon outdoor European Photoreactor (EUPHORE, Spain) and quartz reactors up to 1000 L. Experience in handling analytical equipment for the measurement of solar radiation, SO₂, CO, NO_x and O₃.</p>
Computer skills	<p>Advanced user of PC software (Windows, MS Word, MS Excel, Sigma Plot, Chem-Draw, Microsoft Power Point, etc). Experienced user of Software for a wide range of analytical instruments: FTIR (OPUS, OMNIC), UV-VIS (sPECTRAL 1.70) and GC systems (Agilent, Hewlett-Packard, Fisons, Chromleon, NIST Data Base). Extensive experience in statistical analysis of large data base.</p>



Certificated abilities/competences Certificate for successful attendance of the "Application training session on the multi N/C 3100 and selected accessory modules", by Analytic Jena certified to DIN EN ISO 9001:2000, 2013.
 Certificate for successful attendance of the "Application training session on the contraAA 700 and novAA 350", by Analytic Jena certified to DIN EN ISO 9001:2008, 2014.
 Certificate for successful attendance of "Water Analysis-2011, The 7th South-Eastern European Interlaboratory Study", June 2011-December 2011.
 Certificate for successful attendance of the "General requirements for the competence of testing and calibration laboratories" course, according to the national standard SR EN ISO/CEI 17025:2005, identical with the European Standard EN ISO/IEC 17025:2005, TUV Rheinland Romania, 2010.
 Certificate for successful attendance of „Internal auditor for testing and calibration laboratories” course, in agreement with the requirements of the ISO 17025:2005 and ISO 19011:2002 standards, TUV Austria Romania, 2010.

Communication skills Ability to interpret and communicate scientific data; Ability to address scientific issues to a broad audience

Other skills Mind flexibility/versatility, Honesty

Driving licence -

ADDITIONAL INFORMATION

Publications 55 in peer-reviewed journals (web of science)
 23 in non peer-reviewed journals
 6 books and 3 monographs

Presentations 22 conferences/plenary lectures/oral talks/seminars

Conferences 214 scientific contributions, conferences, oral talk, posters (61 abroad and 153 organised in Romania, 204 with abstracts and 10 with proceedings)

Projects 5 international projects (project director)
 2 national projects (project director)
 8 international projects (member)
 14 national project (member)

Scientific recognition International recognition
 Referee in more than 20 international journals (Atmospheric Chemistry and Physics, Atmospheric Environment, Chemosphere, Atmospheric Research, Journal of Environmental Analytical Chemistry, Environmental Chemistry Letters, Journal of Liquid Chromatography&Related Technologies, etc) for more than 70 scientific articles

h-index-16, average citations per item-22.91; (Sum of Times cited-1260; Without self citation-1218; Citing articles-1116; Without self citation-1092)

https://apps.webofknowledge.com/CitationReport.do?product=WOS&search_mode=CitationReport&SID=E2E4D9b1pqqpDoOv3qN&page=1&cr_pqid=1&viewType=summary&colName=WOS

Scientific recognition

Member in the Editorial Board Journal of Liquid Chromatography&Related Technologies
<https://www.tandfonline.com/action/journalInformation?show=editorialBoard&journalCode=ijlc20>

Editor for 3 specially edited numbers in Acta Chemica Iasi

Referee/expert in the evaluation process of project proposals submitted within

PN-III-P1-1.2-PCCDI-2017 (peer review activity in 2017)

PE-PN-III-P1-1.1-TE-2016 (peer review activity in 2017)

PE-PN-III-P1-1.1-PD-2016 (peer review activity in 2017)

Nucleu Core Program (peer review activity in 2016)

PN-II-RU-TE-2011-3 Action (peer review activity in 2014)

PN-II-PT-PCCA-2013-4 Action (peer review activity in 2013)

Member in the scientific or organisation committee for several national and international conferences

Faculty of Chemistry Conference, Iasi, Romania (2012-2020)

The Scientific Session of Undergraduate, Master and PhD Students (2014-2020)

National Conference of the Doctoral Schools from Universitaria Consortium, 2018

International Congress on Chemistry and Materials Science (ANCON), Ankara, Turkey (2017)

1st SCIENVIR International Conference, Scientific Convergence and Interdisciplinarity in EU Environmental Research, Iasi, Romania, (2017)

National Conference on Forensics, Iasi, Romania (2016-2017)

Medical Physics Conference, Birmingham, UK (2015)

Awards Bougiatioti, A., Arsene, C., Mihalopoulos, N., Sources and variability of non-methane hydrocarbons in the Eastern Mediterranean, Protection and Restoration of the Environment IX (Pre-IX), Kefalonia, Greece, 2008. BEST POSTER AWARD



ANNEXES

Annex 01 List of publications and scientific contributions

Prof. Cecilia ARSENE, PhD. Habil.

Nume Prenume: ARSENE CECILIA

Gradul didactic: Profesor universitar dr. habil.

Instituția unde este titular: Universitatea „Alexandru Ioan Cuza” din Iași

Facultatea: de Chimie

Departamentul: Chimie

LISTA CONTRACTELOR/PROIECTELOR DE CERCETARE

Director				
National				
1	POC 2014-2020/448/1/1 Cod MySMIS 127324,	Centru de cercetare cu tehnici integrate pentru investigarea aerosolilor atmosferici în România (ro)/ Research Center with Integrated Techniques for Atmospheric Aerosol Investigation in Romania (en) (RECENT AIR).	2020-2023	89570958,10 RON
2	PN-III-P4-ID-PCE-2016-0299 37/2017 UEFISCDI, Romania	Assessing the Anthropogenic and Biogenic Emissions Impact on Atmospheric Urban Fine Organic Particles in Eastern Romania. Solving the Challenge of the Aerosols Missing Mass as a One Step Forward Tool (AI-FORECAST)	2017-2019	850000 RON
3	PN-II-ID-PCE-2011-3-0471 UEFISCDI, Romania	Evaluation of Volatile Organics in the Lower/Upper Troposphere - their Impact on the Oxidizing, Noxious and Aerosol Influx Capacity in Romania (EVOLUTION-AIR)	2011-2016	1050000 RON
Membru				
International				
1	COST Action CA16109	COLOSSAL, Chemical On-Line cOmpoSition and Source Apportionment of fine aerosols		2017-2020
2	EC-DGRI, Grant No. 730997 H2020-INFRAIA-2016-2017/H2020-INFRAIA-2016-1	EUROCHAMP-2020		2016-2020
3	PN-III-P3-3.1-PM-RO-FR-2016-0047 Bilateral Romania-France, BRANCUSI 90BM/2017	Ozonolysis of oxygenated unsaturated compounds of biogenic origin in the atmosphere: from kinetics to secondary organic aerosol formation (OzOA)		2017-2018
National				
1	POCU/380/6/13/ – Sprijin pentru doctoranzi si cercetători post-doctorat	Doctoranzi și cercetători postdoctorat pregătiți pentru piața muncii		02.2019-12.2020
2	Proiect 34PFE/19.10.2018	Dezvoltarea capacității de inovare și creșterea impactului cercetării de excelență la UAIC, proiect de tip Proiecte de dezvoltare instituțională – Proiecte de finanțare a excelenței în CDI finanțat de Ministerul Cercetării și Inovării (MCI)		10.2018-11.2020
3	CNFIS-FDI-2018-0102	Cercetare de Excelență în Romania în cadrul Centrului CERNESIM		07.2018-12.2018
4	PN-III-P4-ID-PCE-2016-0270 38/2017	Ozonoliza ca sursă de formare a aerosolilor organici secundari. Investigații de laborator într-o cameră de simulare a atmosferei (OLFA-ROA)		2017-2019
5	PN-III-P4-ID-PCE-2016-0807 118/2017	Investigatii asupra chimiei atmosferice a hidrocarburilor oxigenate ciclice (IGAC-CYCLO)		2017-2019
6	PN-III-P2-2.1.-PED-2016-0924 78PED/03.01.2017	Development and validation of a temperature regulated environmental chamber for studying atmospheric oxidation processes and mechanisms (DEV-TREC)		2017-2018
7	PN-III-P2-2.1.-PED-2016 86PED/2017	Atmospheric Simulation Chamber-New Research Facility to Understand Sesquiterpene Oxidation (CHARUSO)		2017-2018
8	PN-II-RU-TE-2014-4-2461 305/01.10.2015 UEFISCDI-Romania	Studies on Substituted Aromatic Compounds under Simulated Atmospheric Conditions (SOS-AROMATIC)		2015-2017
9	ERA-MIN/0005/2014	ENVironmentally friendly and efficient methods for extraction of Rare		2016-2017

	25/2015 UEFISCDI-Romania	Elements from secondary sources (ENVIREE)	
10	POSCCE-A2-O2.2.1-2009-4, ID 901, SMIS 13984 257/28.09.2010 CNCSIS - Romania	Integrated research centre for environmental sciences investigation in the north-eastern region/CERNESIM	2010-2014
11	POSDRU/86/1.2/S/62307 E6677/18.08.2010	Promoting the criminality scientific research in juridical activities	2010-2013

Data: 24.03.2021

**Semnătura,
Prof. univ. dr. habil. Cecilia ARSENE**