

## Curriculum Vitae

Prof. univ. dr. habil. Romeo-Iulian OLARIU

**Current Affiliation** Alexandru Ioan Cuza University of Iași, Faculty of Chemistry  
Department of Chemistry, Laboratory of Analytical Chemistry  
Integrated Center for Environmental Science Studies for the North-East  
Development Region (in Romania) / CERNESIM  
Research center with integrated techniques for the investigation of  
atmospheric aerosols in Romania / RECENT AIR

**Address**

Office: Alexandru Ioan Cuza University of Iași, Faculty of Chemistry  
Department of Chemistry, Laboratory of Analytical Chemistry  
Carol I, Nr. 11, 700506-Iași, Romania  
Phone: +40-232-201354  
Fax: +40-232-201313  
E-mail: [oromeo@uaic.ro](mailto:oromeo@uaic.ro)

**Education**

Habilitation: 03/2016  
28/03/2016 defense of the habilitation thesis "Advanced research in environmental analytical chemistry Laboratory and Field Studies", Decision to obtain the habilitation certificate and the quality of doctoral supervisor by the Minister's Order No. 3972/07.06.2016, General Directorate of Higher Education, within the Ministry of National Education and Scientific Research.

Doctoral studies: 03/1998-03/2002  
Ph.D., Atmospheric Chemistry, Research Topic: Atmospheric oxidation of selected aromatic hydrocarbons, Department of Physical Chemistry, Bergische Universität GH-Wuppertal, Germany, coordinator Prof. Dr. Karl-Heinz Becker. The title "Doktors der Naturwissenschaften" (Dr. Rer. Nat.) issued on December 14, 2001 by the Bergische Universität Gesamthochscule Wuppertal, Germany. Equivalence by Certificate No. 2922/11.11.2002 with a Doctoral Degree in the Field of Chemistry by the Ministry of Education and Research, Romania.

Postgraduate Studies: 10/1995-06/1996  
Master's Degree in Analytical Chemistry and Physical Chemistry – Molecular Dynamics and Thermodynamics of the Evolution of Chemical Systems, Alexandru Ioan Cuza University of Iasi, Faculty of Chemistry, Romania. Diploma of Advanced Studies Series B No. 0001944, issued on the basis of the defense of the dissertation in the June 1996 session. Document issued with No. 144/28.01.1998.

Undergraduates: 10/1990-06/1995  
Bachelor's degree in Chemistry and Physics, Alexandru Ioan Cuza University of Iași, Faculty of Chemistry, Romania. Bachelor's degree in chemistry and physics, university chemistry profile, chemistry-physics specialization. Bachelor's Degree Diploma Series N No. 003745, issued on the basis of the decision of the commission for the license exam of the June 1995 session. Document issued with No. 1020/07.02.1996.

High school studies: 09/1985-06/1989  
Baccalaureate, High School of Natural Sciences, Galati, Romania. Baccalaureate diploma Series H No. 206104, issued on the basis of the results of the baccalaureate exam in the June 1989 session. Document issued with No. 923/03.07.1989.

**Professional experience**

09/2014: Professor, Ph.D., Alexandru Ioan Cuza University of Iasi, Faculty of Chemistry, Department of Chemistry, Laboratory of Analytical Chemistry. Teaching activities (courses, seminars, laboratories) and research.

02/2007-09/2014: Associate Professor, Alexandru Ioan Cuza University of Iași, Faculty of Chemistry, Department of Chemistry, Laboratory of Analytical Chemistry. Teaching activities (courses, seminars, laboratories) and research.

07/2003-09/2004: Post-doctoral internship at the Faculty of Sciences and Technology Experience Universidade Nova de Lisboa, Portugal. Research Training Network, EU project "Laboratory Studies of Reactive Intermediates Relevant to Atmospheric Chemistry and Combustion". Contract No HPRN-CT-2000-00006.

02/2003-02/2007: Lecturer, Ph.D., Alexandru Ioan Cuza University of Iași, Faculty of Chemistry, Department of Chemistry, Laboratory of Analytical Chemistry. Teaching activities (courses, seminars, laboratories) and research.

04/2002-02/2003: Assistant Professor, Alexandru Ioan Cuza University of Iași, Faculty of Chemistry, Department of Chemistry, Laboratory of Analytical Chemistry, Romania. Teaching activities (courses, seminars, laboratories) and research.

03/1998-03/2002: PhD student in the Department of Physical Chemistry, Bergische Universität GH-Wuppertal, Germany. Research activity dedicated to laboratory investigations in reaction chambers (kinetic investigations and mechanisms of gas phase degradation of aromatic organic compounds. Exploitation of analytical techniques (FTIR) with enlarged optical path for the investigation of the gaseous behavior of some organic pollutants in large reaction chambers (Wuppertal reaction chamber, 1080 L quartz reactor). Use of analytical techniques for measuring the intensity of solar radiation. Use of NO monitors, O<sub>3</sub>, SO<sub>2</sub>, CO and aerosol measurement equipment. Activities for guiding practical laboratory work with students from Bergische Universität GH-Wuppertal, Germany. In 01/1999 he was promoted to the position of assistant professor, Al.I. Cuza, Iași, Faculty of Chemistry, Department of Chemistry, Laboratory of Analytical Chemistry, Romania.

10/1996-02/1998: Teaching Assistant, Alexandru Ioan Cuza University of Iași, Faculty of Chemistry, Department of Chemistry, Laboratory of Analytical Chemistry, Romania. Teaching activities (seminars, laboratories) and research.

#### International/national research projects

#### Principal investigator of international Projects

- 1) **ATMO-ACCESS**, Solutions for Sustainable Access to Atmospheric Research Facilities, H2020-INFRAIA-2020-1, Grant Agreement N°101008004, , Total value: **EUR 120,000**
- 2) **EUROCHAMP-2020**, Integration of European Simulation Chambers for Investigating Atmospheric Processes – Towards 2020 and beyond, INFRAIA-1-2016-2017, H2020 Grant Agreement N° 730997, Total value: **EUR 104,000**
- 3) NATO Contract : **ESP. EAP. CLG 982287**. Period 2006-2008. Topic: Pesticides and Organic Nitrate Level in Natural Matrixes from Iasi-Romania. Beneficiary: NATO, under the Environmental Security programme Total amount: **€10,000**.
- 4) Scientific research contract: **EVR1-CT-2001 –40013**; Period 2002-2004. Theme: Improvements and Access to a Large Simulation Chamber (IALSI); Beneficiary: European Community under the sub-programme: Environment and Sustainable Development; Global Change, Climate and Biodiversity; Total value: **17,500 EUR**.

#### Director of National Projects

- 1) **PN-III-P4-PCE 2021-0673**, Contract No. PCE 74/2022, Study of atmospheric degradation of clean organic solvents, acronym ATMO-SOS, Project value **1,200,000.00 RON**,
- 2) **PN-III-P4-ID-PCE-2016-0270**, Contract No. 38/2017, Ozonolysis as a source of secondary organic aerosol formation. Laboratory investigations in an atmosphere simulation chamber-OLFA-ROA, Project value **850,000.00 RON**.
- 3) Project **PN-P2.-2.1-PED-2016-0924**, Contract No. 78PED/03.01.2017, Development and validation of a temperature regulated environmental chamber for studying atmospheric oxidation processes and mechanisms (DEV-TREC) Project value **600,000.00 RON**.
- 4) Project **PN-III-P3-3.1-PM-RO-FR-2016-0047**, Nr. contract 90BM/2017, Ozonolysis of Oxygenated unsaturated compounds of biogenic origin in the Atmosphere: from kinetics to secondary organic aerosol formation (OzOA).
- 5) Project **POSCEE-A2-O2.2.1-2009-4, ID 901**, SMIS 13984, Contract No.: 257/28.09.2010, Theme: INTEGRATED CENTER FOR ENVIRONMENTAL SCIENCE STUDIES FOR THE NORTH-EAST DEVELOPMENT REGION / CERNESIM. Project value **28,017,514.43 RON**.
- 6) Project **PN-II-2007 Code 405**, Contract No. 9/28.09.2007; Research on the retention of some radionuclides from the environment on heteropolyoxometallate sorbents for the purpose of their determination by ion chromatography. Project value **826,717.00 RON**.

#### Member in international projects

- 1) FP-7/PEOPLE-MERG-CT-2007-203934, Intensive Characterisation of Atmospheric Aerosols in the north-eastern Romania at various Urban Sites (ICAARUS).
- 2) Scientific Convergence and Interdisciplinarity in EU Environmental Research (SCIENVIR) – Erasmus+ Jean Monnet Project (2016-2018), reference no. 575254-EPP-1-2016-1-RO-EPPJMO-PROJECT.
- 3) ERAMIN-Horizon 2020, PN III – ERAMIN no. 25/2015
- 4) NATO ESP. EAP. CLG.98258/2007, Chemical Composition of Atmospheric Aerosols in the North-Eastern Romania. Environmental Security Through Science.

- 5) Research Training Network, EU project "Laboratory Studies of Reactive Intermediates Relevant to Atmospheric Chemistry and Combustion". Contract No. HPRN-CT-2000-00006.
- 6) Effects of the oXidation of Aromatic Compounds in the Troposphere (EXACT): Contract No: EVK4 - CT1999 - 00053.
- 7) "Chemical composition of aerosols" joint research project selected for mobility exchange under the 5th session of the agreement between the Government of Romania and the Government of the Hellenic Republic on Cooperation in Science and Technology No. C18873/28.12.2005.
- 8) "Environmental quality understanding inferred by laboratory investigation of the borne pollutants released by industrial and agricultural activities in a small part of Romania" joint research project selected for mobility exchange under the 15th Italian-Romanian Executive Programme of S&T Co-operation for the period 2006-2008 No. C18002/09.01.2006.

#### **Member in nationally funded projects**

- 1) Competitiveness Operational Program POC 2014-2020/448/1/1/Large DC Infrastructures/1/Large DC Infrastructures, Research Center with Integrated Techniques for the Investigation of Atmospheric Aerosols in Romania (**RECENT AIR**), MySMIS Code 127324, Financing Contract 322/04.09.2020.
- 2) PN-III-P2-2.1-PED-2021-4119 Financing Contract no. 709PED/2022, Investigation of Secondary Organic Aerosols in a Newly Constructed Laminar Reaction Tube. SOA-REACTOR
- 3) PN-III-P2-2.1-PED-2019-4972 Financing Contract no. 444PED/2020, Photolysis of nitroaromatic compounds: a new source of formation of HONO and secondary organic aerosols in the atmosphere. PHONIC-HONO-SOA.
- 4) CNFIS-FDI-2018-0102, Research of Excellence in Romania within the CERNESIM Center (CER-CE).
- 5) PN-III-P4-ID-PCE-2016-0299, 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).
- 6) PN-III-P4-ID-PCE-2016-0807Investigations on the atmospheric chemistry of cyclic oxygenated hydrocarbons (IGAC-CYCLO).
- 7) PN-III-P2-2.1-PED-2016-1621, Atmospheric Simulation Chamber – New Research Tool for the Understanding of Sesquiterpene Oxidation (CHARUSO).
- 8) PN-II-RU-TE-2014-4-2461, Studies on the Oxidation of Substituted AROMATIC Compounds under Simulated Atmospheric Conditions (SOS-AROMATIC).
- 9) PN-II-ID-PCE-2011-3-0471, 2011-2014, Evaluation of Volatile Organics in the Lower/Upper Troposphere - their Impact on the Oxidizing, Noxious and Aerosol Influx Capacity in Romania (EVOLUTION-AIR).
- 10) CEEEX- 2113 /2006. Theme: Ecological reconstruction through mycoremediation processes of soils degraded by mining activities.
- 11) CEEEX-3089/730. 28.06.2006. Topic: Research on the discoloration of some dye solutions by new oxidative, microbiological and sorption processes for the purpose of rehabilitation and recirculation of wastewater from the textile industry.
- 12) INFRAS no. 210/2.11.2004. Theme: Creation of an infrastructure for monitoring and biomonitoring of toxic compounds present in the environment and for tracking their effect on living organisms. Accreditation of a laboratory for the analysis of heavy metals and persistent organic pollutants (POPs).

#### **Areas of interest for research/publication**

##### **Environment Analytical Chemistry**

- Chemistry of the atmosphere.
- Identification and quantification of organic and inorganic pollutants present in air, water, soil.
- Reactivity and reaction mechanisms for photochemical processes induced by radical species (OH, NO<sub>3</sub>, etc.) on organic compounds in air and water.
- Appropriate instrumental techniques (spectroscopic and chromatographic) for the identification and quantification of specific analytes from various natural matrices (air, water, soil, biological matrices)

##### **New materials for decontamination processes**

- Development and characterization of new materials for solid-phase extraction in the form of stationary phases.

<https://orcid.org/0000-0003-1187-5526>

<https://www.webofscience.com/wos/author/record/1279292>

Scopus ID: 57191606594

##### **Works developed/published**

- Articles/studies published in Web of Science journals: **86**
- Books/book chapters: **5/2**
- Articles/studies published in extenso, in papers of international specialized conferences: **14**

- Other scientific papers and contributions: **16** publications in international and national journals BDI; over **50** contributions to international conferences and over **95** contributions to national conferences (oral presentations/posters)
- Number of citations in ISI listed journals: over **2200** (according to Scopus, without self-citations)
- Hirsch Factor: **21** (according to Scopus, without self-citations)

#### Other certificates held

1. AnalytikJena to DIN EN ISO 9001:2000 - multi N/C3100 certificate.
2. AnalytikJena to DIN ISO 9001:2008 certificate – ContrAA700 and novAA350.
3. Certificate with no. TRRO registration certificate AK-33-2010 by which TUV Rheinland Romania confirms the participation in the training course "Specialist for management systems of testing and calibration laboratories", according to the national standard SR EN ISO/CEI 17025:2005 identical to the European standard EN ISO/IEC 17025:2005.
4. Certificate with no. TAR-AK/69/02/2010 by which TUV Austria Romania confirms the participation in the training course "Internal auditor for testing and calibration laboratories according to ISO 17025:2005 and ISO 19011:2002 standards.

#### Known languages

English (read – very well; written – well, spoken – well).

German (read - well written-medium, spoken - well).

#### Research Experience/Technical Skills

Use of instrumental techniques such as FT-IR, Raman, VCD, AAS, UV-vis, Polarography, Conductometry, Ion Chromatography, Gas Chromatography, Liquid Chromatography in various applications (identification, calibration, separation of compounds). Use of reaction chambers used for the purpose of studying the reactions of chemical compounds in the gas phase (atmospheric simulation chambers). Use of analytical equipment for measuring the intensity of solar radiation and monitoring the concentrations of compounds such as nitrogen monoxides, sulfur dioxide, ozone, humidity and instruments for counting and analyzing the distribution of aerosol particles.

#### Experience in the administrative part of the University

- Vice-Rector for Scientific Research, Development, Innovation and Knowledge Transfer: since 2024-
- Member of the Senate of the "Alexandru Ioan Cuza" University of Iași: 2012-2016, 2024-
- Member of the Council of the Faculty of Chemistry: from 2004-2008, 2008-2016, 2018-2019,

#### Other skills and competences

##### Social skills and competences

- Bachelor's degree work coordination: **40**
- Coordination of dissertation papers: **34**
- Coordination of doctoral theses: **6**
- PhDs in Chemistry: **3**
- Responsibility, ability to work with fixed deadlines, experience in multidisciplinary and multifunctional teamwork.

##### Organizational skills and competencies

- Director of the Integrated Center for Studies in Environmental Science for the North-East Development Region/(CERNESIM), a newly established centre within the "Alexandru Ioan Cuza" University of Iași through the project POSCCE-A2-O2.2.1-2009-4, ID 901, SMIS 13984, Contract No.: 257 / 28.09.2010, <https://cernesim.uaic.ro/index.php/language/ro/>: 2010-2024

- Since 2008 the **Quality Officer** within the Laboratory of Instrumental Analysis and Analytical Chemistry (LAICA), a laboratory accredited by RENAR.

##### Scientific skills and competences

- Ability to interpret and communicate scientific results
- Member of the scientific committee of the conference of the Faculty of Chemistry and of the Conference "Recent Achievements in Organic and Supramolecular Chemistry".
- Member of the Editorial Board Anal. St. of Univ. Al.I.Cuza Iasi Geology Series
- Member of the Editorial Board Journal of Liquid Chromatography & Related Technologies
- Specialized referent for articles published in international journals listed by ISI:
  - Journal of Photochemistry and Photobiology A, Chemosphere, Science of the Total Environment, Environmental Chemistry Letters, Atmospheric Chemistry and Physics, Environmental Chemistry, Environmental Science and Technology

#### Visiting Professor

September 2023: Aerodyne Research Institute, Inc. USA, MA, USA

June 2023: Institut für Energie- und Klimaforschung, IEK-8: Troposphäre, Forschungszentrum Jülich GmbH, Germany

July 2016: Department of Chemistry and Environment at the Ecole des Mines in Douai, France.

July/August 2015: Department of Chemistry and Environment at the Ecole des Mines in Douai, France.

July/August 2011: Department of Chemistry and Environment at the Ecole des Mines in Douai, France.

June/July 2010: Department of Chemistry and Environment at the Ecole des Mines in Douai, France.

July 2007: Laboratory of Analytical Chemistry, University of Turin, Italy.  
July 2006: Laboratory of Analytical Chemistry, University of Turin, Italy.

#### **Member of professional associations**

- Romanian Society of Chemistry since 2005.
- EUROCHAMP- Advanced European atmospheric simulation chambers consortium - 2016
- ATMO-ACCES- Sustainable Access to Atmospheric Research Facilities consortium- 2021
- ACTRIS-RO - the Romanian component of the ACTRIS-2021 distributed infrastructure

#### **Teaching activity**

**Courses and laboratories/seminars held at various specializations within the "Alexandru Ioan Cuza" University of Iași:**

- Basics of Analytical Chemistry (Faculty of Chemistry, First Year).
- Instrumental Analysis I. Optical Methods of Analysis (Faculty of Chemistry, Year II).
- Instrumental Analysis II. Electrochemical Methods of Analysis (Faculty of Chemistry, First Year).
- Practical skills in instrumental analysis (Faculty of Chemistry, Year II).
- Environmental Chemistry (Faculty of Chemistry, Master Year II).
- Chemical Sensors (Faculty of Chemistry, Master Year I).
- Analytical Chemistry Methods Applied in Forensic Research (Faculty of Law, Master Year I).
- Quality management in chemical analysis. ISO regulations. (Faculty of Chemistry, Master Year II).
- Chemical Processes in the Atmosphere (Faculty of Physics, Master Year II).
- Analytical control of biotechnological processes (Faculty of Chemistry, Year III).
- Atmospheric processes in the gas phase (Faculty of Chemistry, Master Year II).
- Analytical Chemistry and the Practice of Separation in Chemistry (Faculty of Chemistry, First Year).
- Trace Analysis (Faculty of Chemistry, Year III).
- Environmental Management and Legislation (Faculty of Chemistry, Master Year II).
- Environmetry - chemometry applied to the study of the environment (Faculty of Chemistry, Master Year II).
- Sampling and analytical methodologies for environmental investigation (Faculty of Chemistry, Master Year I).
- Analytical techniques and instruments used in clinical laboratories (Faculty of Chemistry, Master Year I).
- Advanced Methods of Analysis in Medical Chemistry (Faculty of Chemistry, Year III).

Prof. univ. dr. habil. Romeo-Iulian OLARIU

December, 2025

## List of scientific papers

### a) List of the 10 relevant publications to professional achievements:

1. Mairean C.-P.; Roman C.; Arsene C.; Bejan I.-G.; Olariu R.-I.\*, Gas-Phase Ozone Reaction Kinetics of a Series of *cis*-3-Hexenyl Esters under Simulated Atmospheric Conditions, *Journal of Physical Chemistry A*, 129, 16, 2025.
2. Amarandei C., Olariu R.I., Arsene C., First insights into the molecular characteristics of atmospheric organic aerosols from Iasi, Romania: Behavior of biogenic versus anthropogenic contributions and potential implications, *Science of the Total Environment*, 877, 2023.
3. Arsene C., Bejan I.G., Roman C., Olariu R.I., Minella M., Passananti M., Carena L., Vione D., Evaluation of the Environmental Fate of a Semivolatile Transformation Product of Ibuprofen Based on a Simple Two-Media Fate Mode, *Environmental Science and Technology*, 56 (22), 15650-15660, 2022.
4. Soroaga L.-V., Arsene C., Borcică C., Pintilei M., Olariu R.I.\*, Development and application of an analysis method for the determination of rare earth elements in silicate-rich samples by Na<sub>2</sub>O<sub>2</sub> sintering and ICP-MS analysis, *Analytical Sciences*, 38 (11), 1395-1406, 2022.
5. Roman, C., Arsene, C., Bejan, I. G., and Olariu R.I.\*: Investigations into the gas-phase photolysis and OH radical kinetics of nitrocatechols: implications of intramolecular interactions on their atmospheric behaviour, *Atmos. Chem. Phys.*, 22, 2203-2219, 2022.
6. Roman, C., Roman, T., Arsene, C., Bejan, I. G., and Olariu R.I.\*: Gas-phase IR cross-sections and single crystal structures data for atmospheric relevant nitrocatechols, *Spectrochim. Acta-Part A Mol. Biomol. Spectrosc.*, 265, 120379, 2022.
7. Galon-Negru, A.G., Olariu, R.I., Arsene, C., Size-resolved measurements of PM2.5 water-soluble elements in Iasi, north-eastern Romania: Seasonality, source apportionment and potential implications for human health, *Science of the Total Environment*, 695, 2019.
8. Olariu R.I.\*, Barnes I., Bejan I., Arsene C., Vione D., Klotz B., Becker K.H. FT-IR product study of the reactions of NO<sub>3</sub> radicals with ortho -, meta -, and para-cresol, *Environmental Science and Technology*, 47(14), 7729-7738, 2013.
9. Davide Vione, Valter Maurino, Claudio Minero, Ezio Pelizzetti, Mark A. J. Harrison, Romeo-Iulian Olariu and Cecilia Arsene, Photochemical reactions in the tropospheric aqueous phase and on particulate matter. *Chemical Society Reviews*, 35, 441-453, 2006.
10. Olariu, R.I.; Barnes, I.; Becker, K.H.; Klotz, B. and Mocanu, R., FT-IR study of the ring-retaining products from the reaction of OH radical with phenol, o-, m-, and p-cresol, *Atmospheric Environment*, 36, 3685-3697, 2002.

### c) Books and chapters in books:

1. Cecilia Arsene and Romeo Iulian Olariu, *Forensic Research of Microtraces*, AIT Laboratories, 185 p., ISBN 978-606-8363-09-7x1, 2011.
2. Cecilia Arsene, Romeo Iulian Olariu, *Understanding atmospheric chemistry of hydrocarbons. An introductory approach*, 177 p., ISBN: 978-973-702-657-6, TEHNOPRESS, Iasi, 2009.
3. Cecilia Arsene, Romeo Iulian Olariu, *Analytical and Statistical Methods in the Investigation of Chemical Systems*, 241 p., ISBN: 978-973-730-606-7, PERFORMANTICA, Iasi, 2009.
4. Vione, D., Minero, C., Maurino, V., Olariu, R.I., Arsene, C., Mostafa, K.M.G., *Photoinduced Transformation Processes in Surface Waters*, pp.309-332, Chapter 9, in *Photochemistry: UV/VIS Spectroscopy, Photochemical Reactions and Photosynthesis*, Maes, K.J., Willems, J.M., Eds., Series *Chemical Engineering Methods and Technology*, ISBN: 978-1-61209-506-6, Imprint: Nova Press, 2011 (book chapter).
5. Cecilia Arsene, Romeo Iulian Olariu, *Sulfur in the Atmosphere*, Technical, Scientific and Didactic Publishing House, 198 p., ISBN: 973-8188-87-3, CERMI, Iasi, 2003.
6. Romeo Iulian Olariu, Cecilia Arsene, *Atmospheric Degradation of Aromatic Hydrocarbons*, 101 p., ISBN 973-8490-25-1, PIM Publishing House, Iasi, 2002.
7. R. Olariu, I. Barnes, K.H. Becker, *Kinetics of hydroxylated benzenes*, in *Atmospheric Diagnostics in Urban Regions*, ed. By J.P. Lay, K.H. Becker, W.H. Hauthal, B. Rindone, C. Zetzs, ISBN 3-503-06070-7, Erich Schmidt Verlag, Berlin, 2001, p113-119 (book chapter).

**d) articles/studies published in extenso in ISI-indexed international journals**

**International ISI-indexed journals**

1. D'Souza Metcalf, J.; Winkless, R. K.; Mapelli, C.; McElroy, C. R.; Roman, C.; Arsene, C.; Olariu, R. I.; Bejan, I. G.; Dillon, T. J.; Atmospheric breakdown kinetics and air quality impact of potential “green” solvents, the oxymethylene ethers OME3 and OME4, *Atmospheric Chemistry and Physics*, 25, 9169–9181, 2025.
2. Iancu, C., Nita, C., Soroaga, L. V., Negru, A. G., Olariu, R. I., Arsene, C., First chemical insights into airborne microbial communities isolated from ambient particulate matter in the Iasi urban area, north-eastern Romania. *Journal of Liquid Chromatography & Related Technologies*, 48(16–20), 596–611. 2025.
3. Mairean C.-P.; Roman C.; Arsene C.; Bejan I.-G.; Olariu R.-I.\*, Gas-Phase Ozone Reaction Kinetics of a Series of cis-3-Hexenyl Esters under Simulated Atmospheric Conditions, *Journal of Physical Chemistry A*, 129, 16, 2025.
4. Amarandei C.; Negru A.G.; Iancu C.; Olariu R.I.; Arsene C., Seasonality, sources apportionment, human health risks assessments, and potential implications on the atmospheric chemistry of polycyclic aromatic hydrocarbons in size-segregated aerosols from a Romanian metropolitan area, *Chemosphere*, 368, 2024.
5. Rusu A.-M.; Roman C.; Bejan I.G.; Arsene C.; Olariu R.I., Gas-Phase Reaction Kinetic Study of a Series of Methyl-Butenols with Ozone under Atmospherically Relevant Conditions, *Journal of Physical Chemistry A*, 128, 32, 6745-6756, 2024.
6. Mairean C.-P.; Roman C.; Arsene C.; Bejan I.-G.; Olariu R.-I.\*, Gas-Phase Kinetics of a Series of cis-3-Hexenyl Esters with OH Radicals under Simulated Atmospheric Conditions, 2024, *Journal of Physical Chemistry A*, 128, 30, 6274-6285, 2024.
7. Rusu Vasilache A.-M.; Roman C.; Bejan I.G.; Arsene C.; Olariu R.I.\*, Gas-Phase Kinetic Investigation of the OH-Initiated Oxidation of a Series of Methyl-Butenols under Simulated Atmospheric Conditions, *Journal of Physical Chemistry A*, 128, 24, 2024.
8. Negru A.G.; Olariu R.I.; Arsene C., First insights into the new particle formation and growth at a north-eastern Romanian urban site, Iasi. Potential health risks from ultrafine particles, 2024, *Atmospheric Pollution Research*, 15, 11, 10.1016/j.apr.2024.102257; FI 3.9, Q2, 86.3 points.
9. Amarandei C., Olariu R.I., Arsene C., Offline analysis of secondary formation markers in ambient organic aerosols by liquid chromatography coupled with time-of-flight mass spectrometry, *Journal of Chromatography A*, 1702, 2023.
10. Amarandei C., Olariu R.I., Arsene C., First insights into the molecular characteristics of atmospheric organic aerosols from Iasi, Romania: Behavior of biogenic versus anthropogenic contributions and potential implications, *Science of the Total Environment*, 877, 2023.
11. Mapelli C., Schleicher J.V., Hawtin A., Rankine C.D., Whiting F.C., Byrne F., McElroy C.R., Roman C., Arsene C., Olariu R.I., Bejan I.G., Dillon T.J., Atmospheric breakdown chemistry of the new “green” solvent 2,2,5,5-tetramethyloxolane via gas-phase reactions with OH and Cl radicals, *Atmospheric Chemistry and Physics*, 22, 14589-14602, 2022.
12. Arsene C., Bejan I.G., Roman C., Olariu R.I.\*, Minella M., Passananti M., Carena L., Vione D., Evaluation of the Environmental Fate of a Semivolatile Transformation Product of Ibuprofen Based on a Simple Two-Media Fate Mode, *Environmental Science and Technology*, 56 (22), 15650-15660, 2022.
13. Soroaga L.-V., Arsene C., Borgia C., Pintilei M., Olariu R.-I.\*, Development and application of an analysis method for the determination of rare earth elements in silicate-rich samples by Na<sub>2</sub>O<sub>2</sub> sintering and ICP-MS analysis, *Analytical Sciences*, 38 (11), 1395-1406, 2022.
14. Grira, A., Amarandei, C., Roman, C., Bejaoui, O., Aloui, N., El Dib, G., Arsene, C., Bejan, I. G., Olariu, R. I.\*, Canosa, A., and Tomas, A.: Gas-phase ozone reaction kinetics of C<sub>5</sub>–C<sub>8</sub> unsaturated alcohols of biogenic interest, *J. Phys. Chem. A*, 126(27):4413-4423, 2022.
15. Roman, C., Arsene, C., Bejan, I. G., and Olariu, R. I.\*: Investigations into the gas-phase photolysis and OH radical kinetics of nitrocatechols: implications of intramolecular interactions on their atmospheric behaviour, *Atmospheric Chemistry and Physics*, 22, 2203–2219, 2022.
16. Roman, C., Roman, T., Arsene, C., Bejan, I. G., and Olariu, R.I.\*: Gas-phase IR cross-sections and single crystal structures data for atmospheric relevant nitrocatechols, *Spectrochim. Acta-Part A Mol. Biomol. Spectrosc.*, 265, 120379, 2021.
17. Amarandei, C., Negru, A.G., Soroaga, L.V., Cucu-Man, S.M., Olariu, R.I., Arsene, C., Assessment of surfacewater quality in the Podu Iloaiei Dam Lake (North-Eastern Romania): Potential implications for aquaculture activities in the area, *Water*, 13, 2395, 2021.

18. Sandu, M.C., Soroaga, L.V., Balaban, S.I., Chelariu, C., Chiscan, O., Iancu, G.O., Arsene, C., Olariu, R.I.\*, Trace elements distribution in stream sediments of an abandoned U mining site in the Eastern Carpathians, Romania, with particular focus on REEs, *Geochemistry* 81, 125761, 2021.
19. Iustinian Gabriel Bejan, Romeo-Iulian Olariu and Peter Wiesen, Secondary Organic Aerosol Formation from Nitrophenols Photolysis under Atmospheric Conditions, *Atmosphere*, 11, 1346, 1-15, 2020.
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Prof. univ. dr. habil. Romeo-Iulian OLARIU

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