

## Curriculum Vitae

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

- Afilieri curentă**      Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Chimie  
Departamentul de Chimie, Laboratorul de Chimie Analitică  
Centrul Integrat de Studii în Știința Mediului pentru Regiunea de Dezvoltare  
Nord-Est (din România) / CERNESIM  
Centru de cercetare cu tehnici integrate pentru investigarea aerosolilor  
atmosferici în România / RECENT AIR
- Adresă**  
Birou:                      Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Chimie  
Departamentul de Chimie, Laborator de Chimie Analitică  
Carol I, Nr. 11, 700506-Iași, România  
Telefon:                  +40-232-201354  
Fax:                        +40-232-201313  
E-mail:                    [oromeo@uaic.ro](mailto:oromeo@uaic.ro)
- Studii/Educație**  
Abilitare:                03/2016  
28/03/2016 susținere teză de abilitare "Advanced research in environmental  
analytical chemistry Laboratory and Field Studies", Decizie de obținere a  
atestatului de abilitare și a calității de conducător de doctorat prin Ordinul  
Ministrului Nr. 3972/07.06.2016, Direcția Generală Învățământ Superior, din  
cadru Ministerului Educației Naționale și Cercetării Științifice.
- Studii doctorale:      03/1998-03/2002  
Doctorat, Chimia Atmosferei, Tema de cercetare: Oxidarea atmosferică a unor  
hidrocarburi aromate selectate, Departamentul de Chimie Fizică, Bergische  
Universität GH-Wuppertal, Germania, coordonator Prof. Dr. Karl-Heinz Becker.  
Titlul „Doktors der Naturwissenschaften” (Dr. Rer. Nat.) eliberat la 14  
Decembrie 2001 de către Bergische Universität Gesamthochschule Wuppertal,  
Germania. Echivalare prin Atestat Nr. 2922/11.11.2002 cu Diplomă de Doctor  
în Domeniul Chimiei de către Ministerul Educației și Cercetării, România.
- Studii aprofundate:    10/1995-06/1996  
Masterat în Chimie Analitică și Chimie-Fizică – Dinamica moleculară și  
termodinamica evoluției sistemelor chimice, Universitatea Alexandru Ioan Cuza  
din Iași, Facultatea de Chimie, România. Diplomă de Studii Aprofundate Seria  
B Nr. 0001944, eliberată pe baza susținerii dizertației în sesiunea iunie 1996.  
Document eliberat cu Nr. 144/28.01.1998.
- Studii universitare:    10/1990-06/1995  
Licență în Chimie și Fizică, Universitatea Alexandru Ioan Cuza din Iași,  
Facultatea de Chimie, România. Titlul de licențiat în chimie și fizică profilul  
chimie universitari, specializarea chimie-fizică. Diplomă de Licență Seria N Nr.  
003745, eliberată în baza hotărârii comisiei pentru examenul de licență din  
sesiunea iunie 1995. Document eliberat cu Nr. 1020/07.02.1996.
- Studii liceale:         09/1985-06/1989  
Bacalaureat, Liceul de Științe ale Naturii, Galați România. Diplomă de  
Bacalaureat Seria H Nr. 206104, eliberată pe baza rezultatelor examenului de  
bacalaureat din sesiunea iunie 1989. Document eliberat cu Nr. 923/03.07.1989.
- Experiență profesională**  
09/2014:                Profesor universitar doctor, Universitatea Alexandru Ioan Cuza din Iași,  
Facultatea de Chimie, Departamentul de Chimie, Laborator de Chimie Analitică.  
Activități didactice (cursuri, seminarii, laboratoare) și de cercetare.
- 02/2007-09/2014:    Conferențiar universitar doctor, Universitatea Alexandru Ioan Cuza din Iași,  
Facultatea de Chimie, Departamentul de Chimie, Laborator de Chimie Analitică.  
Activități didactice (cursuri, seminarii, laboratoare) și de cercetare.
- 07/2003-09/2004:    Stagiu post-doctoral la Faculdade de Ciências e Tecnológica Experience  
Universidade Nova de Lisboa, Portugalia. 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:    Lector universitar doctor, Universitatea Alexandru Ioan Cuza din Iași,  
Facultatea de Chimie, Departamentul de Chimie, Laborator de Chimie Analitică.  
Activități didactice (cursuri, seminarii, laboratoare) și de cercetare.

- 04/2002-02/2003: Asistent universitar doctor, Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Chimie, Departamentul de Chimie, Laborator de Chimie Analitică, România. Activități didactice (cursuri, seminarii, laboratoare) și de cercetare.
- 03/1998-03/2002: Doctorand în cadrul Departamentului de Chimie Fizică, Bergische Universität GH-Wuppertal, Germania. Activitate de cercetare dedicată investigațiilor de laborator în camere de reacție (investigații cinetice și de mecanisme de degradare în fază gazoasă a compușilor organici aromatici. Exploatare tehnici analitice (FTIR) cu drum optic mărit pentru investigarea comportamentului în fază gazoasă a unor poluanți organici în camere de reacție de dimensiuni mari (camera de reacție din Wuppertal, reactor din quartz de 1080 L). Utilizare tehnici analitice pentru măsurarea intensității radiației solare. Utilizare monitoare NO<sub>x</sub>, O<sub>3</sub>, SO<sub>2</sub>, CO și echipamente de măsurare a aerosolilor. Activități de îndrumare a lucrărilor practice de laborator cu studenți de la Bergische Universität GH-Wuppertal, Germania. În 01/1999 promovare pe funcția de asistent universitar, Universitatea Al.I. Cuza, Iași, Facultatea de Chimie, Departament de Chimie, Laborator de Chimie Analitică, România.
- 10/1996-02/1998: Preparador universitar, Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Chimie, Departament de Chimie, Laborator de Chimie Analitică, România. Activități didactice (seminarii, laboratoare) și de cercetare.

#### **Proiecte de cercetare internaționale/naționale**

##### **Director proiecte internaționale**

- 1) **ATMO-ACCESS**, Solutions for Sustainable Access to Atmospheric Research Facilities, H2020-INFRAIA-2020-1, Grant Agreement N°101008004, , Valoare totală: **120 000 EUR**
- 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, Valoare totală: **104 000 EUR**
- 3) Contract **NATO: ESP.EAP.CLG 982287**. Perioada de desfășurare 2006-2008. Tema: Pesticides and Organic Nitrate Level in Natural Matrixes from Iasi-Romania. Beneficiar: NATO, în cadrul programului Environmental Security Valoare totală: **10 000 EUR**.
- 4) Contract de cercetare științifică: **EVR1-CT-2001 -40013**; Perioada de desfășurare 2002-2004. Tema: Improvements and Access to a Large Simulation Chamber (IALSI); Beneficiar: Comunitatea Europeană în cadrul subprogramului: Environment and Sustainable Development; Global Change, Climate and Biodiversity; Valoare totală: **17 500 EUR**.

##### **Director proiecte naționale**

- 1) **PN-III-P4-PCE 2021-0673**, Nr. contract PCE 74/2022, Studiul degradării atmosferice a unor solvenți organici curați, acronim ATMO-SOS, Valoare proiect **1200000,00 RON**,
- 2) **PN-III-P4-ID-PCE-2016-0270**, Nr. contract 38/2017, Ozonoliza ca sursă de formare a aerosolilor organici secundari. Investigații de laborator într-o cameră de simulare a atmosferei-OLFA-ROA, Valoare proiect **850000,00 RON**.
- 3) Proiect **PN-P2.-2.1-PED-2016-0924**, Nr. contract 78PED/03.01.2017, Development and validation of a temperature regulated environmental chamber for studying atmospheric oxidation processes and mechanisms (DEV-TREC) Valoare proiect **600000,00 RON**.
- 4) Proiect **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) Proiect **POSCCE-A2-O2.2.1-2009-4, ID 901**, SMIS 13984, Nr. contract: 257/28.09.2010, Tema: CENTRU INTEGRAT DE STUDII IN STIINTA MEDIULUI PENTRU REGIUNEA DE DEZVOLTARE NORD-EST / CERNESIM. Valoare proiect **28017514,43 RON**.
- 6) Proiect **PN-II-2007 Cod 405**, Nr. contract 9/28.09.2007; Cercetări privind reținerea unor radionuclizi din mediu pe sorbenți heteropolioxometalați în scopul determinării lor prin cromatografie ionică. Valoare proiect **826717,00 RON**.

##### **Membru în proiecte internaționale**

- 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) – proiect Erasmus+ Jean Monnet Project (2016-2018), referința nr. 575254-EPP-1-2016-1-RO-EPPJMO-PROJECT.
- 3) ERAMIN-Orizont 2020, PN III – ERAMIN nr. 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.

#### **Membru în proiecte finanțate la nivel național**

- 1) Programului Operațional Competitivitate POC 2014-2020/448/1/1/Mari infrastructuri de CD/1/Mari infrastructuri de CD, Centru de cercetare cu tehnici integrate pentru investigarea aerosolilor atmosferici în România (**RECENT AIR**), Cod MySMIS 127324, Contract de finanțare 322/04.09.2020.
- 2) PN-III-P2-2.1-PED-2021-4119 Contract de finanțare nr. 709PED/2022, Investigarea aerosolilor organici secundari într-un tub laminar de reacție, nou construit. SOA-REACTOR
- 3) PN-III-P2-2.1-PED-2019-4972 Contract de finanțare nr. 444PED/2020, Fotoliza compușilor nitroaromatici: o noua sursă de formare a HONO și aerosoli organici secundari în atmosfera. PHONIC-HONO-SOA.
- 4) CNFIS-FDI-2018-0102, Cercetarea de Excelență în România în cadrul Centrului CERNESIM (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-2016-0807 Investigatii asupra chimiei atmosferice a hidrocarburilor oxigenate ciclice (IGAC-CYCLO).
- 7) PN-III-P2-2.1-PED-2016-1621, Camera de Simulare Atmosferică – Nou Instrument de Cercetare pentru Înțelegerea Oxidării Sesquiterpenelor (CHARUSO).
- 8) PN-II-RU-TE-2014-4-2461, Studii privind oxidarea compușilor aromatici substituiți în condiții de atmosferă simulată // 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. Tema: Reconstrucția ecologică prin procedee de micoremediere a solurilor degradate de activitățile miniere.
- 11) CEEEX-3089/730. 28.06.2006. Tema: Cercetări privind decolorarea unor soluții de coloranți prin noi procedee oxidative, microbiologice și de sorbție în scopul reabilitării și recirculării apelor uzate din industria textilă.
- 12) INFRAS nr. 210/2.11.2004. Tema: Crearea unei infrastructuri pentru monitorizarea și biomonitorizarea compușilor toxici prezenți în mediu și pentru urmărirea efectului acestora asupra organismelor vii. Acreditarea unui laborator de analiza metalelor grele și a poluanților organici persistenți (POPs).

#### **Domenii de interes pentru cercetare/publicare**

##### **Mediu**

- Chimia atmosferei.
- Identificarea și cuantificarea poluanților organici și anorganici prezenți în aer, apă, sol.
- Reactivitate și mecanisme de reacție pentru procesele fotochimice induse de speciile radicalice (OH, NO<sub>3</sub>, etc.) asupra compușilor organici din aer și apă.
- Tehnici instrumentale adecvate (spectroscopice și cromatografice) pentru identificarea și cuantificarea unor analiți specifici din diverse matrici naturale (aer, apă, sol, matrici biologice)

##### **Materiale noi pentru procese de decontaminare**

- Dezvoltarea și caracterizarea unor materiale noi pentru extracție în fază solidă sub formă de faze staționare.

##### **Lucrări elaborate/publicate**

- Articole/studii publicate în reviste de specialitate Web of Science: **84**
- Cărți/capitole de cărți: **5/2**
- Articole/studii publicate in extenso, în lucrări ale unor conferințe internaționale de specialitate: **15**
- Alte lucrări și contribuții științifice: **19** publicații în jurnale internaționale și naționale BDI; peste **50** de contribuții la conferințe internaționale și peste **100** de contribuții la conferințe naționale (prezentări orale/postere)
- Număr de citări în reviste cotate ISI: peste **2050** (după Scopus, fără autocitări)
- Factor Hirsch: **20** (după Scopus, fără autocitări)

##### **Alte certificate deținute**

1. Certificat AnalytikJena to DIN EN ISO 9001:2000 - multi N/C3100.

2. Certificat AnalytikJena to DIN ISO 9001:2008 – ContrAA700 and novAA350.
3. Certificat cu nr. de înregistrare TRRO AK-33-2010 prin care TUV Rheinland România confirmă participarea la cursul de instruire „Specialist pentru sisteme de management al laboratoarelor de încercări și etalonări”, conform standardului național SR EN ISO/CEI 17025:2005 identic cu standardul european EN ISO/IEC 17025:2005.
4. Certificat cu nr. de înregistrare TAR-AK/69/02/2010 prin care TUV Austria România confirmă participarea la cursul de instruire „Auditor intern pentru laboratoare de încercări și etalonări” conform standardelor ISO 17025:2005 și ISO 19011:2002.

### **Limbi cunoscute**

Engleză (citit –foarte bine; scris - bine, vorbit - bine).

Germana (citit - bine scris-mediu, vorbit - bine).

### **Experiență de cercetare/Abilități tehnice**

Folosirea tehnicilor instrumentale tip FT-IR, Raman, VCD, AAS, UV-vis, Polarografie, Conductometrie, Cromatografie ionică, Cromatografie de gaze, Cromatografie de lichide în diverse aplicații (identificări, calibrări, separări de compuși). Utilizarea camerelor de reacție folosite în scopul studierii reacțiilor compușilor chimici în fază gazoasă (camerele de simulare a condițiilor atmosferice). Utilizarea unor echipamente analitice de măsurare a intensității radiației solare și de monitorizare a concentrațiilor compuşilor de tipul monoxidului de azot, dioxidului de sulf, ozonului, umiditate și a instrumentelor de controlare și analiză a distribuției particulelor de aerosoli.

### **Experiență în partea administrativă a Universității**

Membru în Consiliu Facultății de Chimie: din anul 2004-2008, 2008-2016, 2018-2019,

Membru în Senatul Universității „Alexandru Ioan Cuza” din Iași: 2012-2016, 2024-

Prorector pentru cercetare științifică, dezvoltare, inovare și transfer de cunoștințe: 2014-

### **Alte aptitudini și competențe**

#### **Aptitudini și competențe sociale**

Coordonare lucrări licență: **38**

Coordonare lucrări disertație: **33**

Coordonare lucrări de doctorat: **4**

Doctori în Chimie: **2**

Responsabilitate, capacitate de a lucra cu termene fixe, experiență în lucrul în echipă multidisciplinară și multifuncțională.

#### **Aptitudini și competențe organizatorice**

Din 2019 director al Centrului Integrat de Studii în Știința Mediului pentru Regiunea de Dezvoltare Nord-Est/(CERNESIM), centru nou înființat în cadrul Universității „Al. I. Cuza” din Iași prin proiectul POSCCE-A2-O2.2.1-2009-4, ID 901, SMIS 13984, Nr. contract: 257 / 28.09.2010, <https://cernesim.uaic.ro/index.php/language/ro/>.

Din 2008 **Responsabilul Calității** în cadrul Laboratorului de analiză instrumentală și chimie analitică (LAICA), laborator acreditat de către RENAR.

#### **Aptitudini și competențe științifice**

Capacitate de a interpreta și comunica rezultate științifice

Membru în comitetul științific a conferinței Facultății de Chimie și a Conferinței “Recent Achievements in Organic and Supramolecular Chemistry”.

Membru in Editorial Board Anal. St. ale Univ. Al.I.Cuza Iasi Seria Geologie

Membru Editorial Board Journal of Liquid Chromatography & Related Technologies

Referent de specialitate pentru articole publicate în jurnale internaționale cotate 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

### **Profesor invitat**

Septembrie 2023: Institutul Aerodyne Research, Inc. SUA, MA, SUA

Iunie 2023: Institut für Energie- und Klimaforschung, IEK-8: Troposphäre, Forschungszentrum Jülich GmbH, Germania

Iulie 2016: Departamentul de Chimie și Mediu de la Ecole des Mines din Douai, Franța.

Iulie/august 2015: Departamentul de Chimie și Mediu de la Ecole des Mines din Douai, Franța.

Iulie/august 2011: Departamentul de Chimie și Mediu de la Ecole des Mines din Douai, Franța.

Iunie/iulie 2010: Departamentul de Chimie și Mediu de la Ecole des Mines din Douai, Franța.

Iulie 2007: Laboratorul de Chimie Analitică, Universitatea din Torino, Italia.

Iulie 2006: Laboratorul de Chimie Analitică, Universitatea din Torino, Italia.

### **Membru asociații profesionale**

Societatea Română de Chimie din 2005.

EUROCHAMP- Advanced European atmospheric simulation chambers consortium - 2016

### **Activitatea didactică**

**Cursuri și laboratoare/seminarii ținute la diverse specializări din cadrul Universității „Al.I.Cuza” din Iași:**

- Bazele chimiei analitice (Facultatea de Chimie, Anul I).
- Analiză Instrumentală I. Metode optice de analiză (Facultatea de Chimie, Anul II).
- Analiză Instrumentală II. Metode electrochimice de analiză (Facultatea de Chimie, Anul I).
- Abilități practice în analiza instrumentală (Facultatea de Chimie, Anul II).
- Chimia mediului (Facultatea de Chimie, Master Anul II).
- Senzori chimici (Facultatea de Chimie, Master Anul I).
- Metode de chimie analitică aplicate în cercetarea criminalistică (Facultatea de Drept, Master Anul I).
- Managementul calității în analiza chimică. Reglementări ISO. (Facultatea de Chimie, Master Anul II).
- Procese chimice în atmosferă (Facultatea de Fizică, Master Anul II).
- Controlul analitic al proceselor biotehnologice (Facultatea de Chimie, Anul III).
- Procese atmosferice în faza gazoasă (Facultatea de Chimie, Master Anul II).
- Chimie analitică și practica separării în chimie (Facultatea de Chimie, Anul I).
- Analize de urme (Facultatea de Chimie, Anul III).
- Managementul și legislația mediului (Facultatea de Chimie, Master Anul II).
- Environmetrie - chemometrie aplicată în studiul mediului (Facultatea de Chimie, Master Anul II).
- Sampling și metodologii analitice de investigarea mediului (Facultatea de Chimie, Master Anul I).
- Tehnici și instrumente analitice utilizate în laboratoarele clinice (Facultatea de Chimie, Master Anul I).
- Metode avansate de analiză în chimia medicală (Facultatea de Chimie, Anul III).

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

August, 2025

## Lista de lucrări științifice

### a) Lista celor 10 lucrări relevante pentru realizările profesionale:

1. 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, 4838-4849, 2024.
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., 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.
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 PM<sub>2.5</sub> 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) Cărți și capitole în cărți:

1. Cecilia Arsene și Romeo Iulian Olariu, Cercetarea criminalistica a microurmelor, 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, Metode analitico-statistice in investigarea sistemelor chimice, 241 p., ISBN: 978-973-730-606-7, PERFORMANTICA, Iasi, 2009.
4. Vione, D., Minero, C., Maurino, V., Olariu, R.I., Arsene, C., Mostofa, 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 atmosfera, Editura Tehnica, Stiintifica si Didactica, 198 p., ISBN: 973-8188-87-3, CERMI, Iasi, 2003.
6. Romeo Iulian Olariu, Cecilia Arsene, Degradarea atmosferica a hidrocarburilor aromatice, 101 p., ISBN 973-8490-25-1, Ed. PIM, 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. Zetzsch, ISBN 3-503-06070-7, Erich Schmidt Verlag, Berlin, 2001, p113-119 (book chapter).

#### d) articole/studii publicate în extenso, în reviste din circuitul științific internațional

##### ISI-în străinătate

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, 2025, Journal of Physical Chemistry A, 129, 16, 3696-3708, 10.1021/acs.jpca.5c01004;
2. 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, 2024, Chemosphere, 368, 10.1016/j.chemosphere.2024.143738;
3. 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, 2024, Journal of Physical Chemistry A, 128, 32, 6745-6756, 10.1021/acs.jpca.4c03653;
4. 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, 10.1021/acs.jpca.4c03069;
5. 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, 2024, Journal of Physical Chemistry A, 128, 24, 4838-4849, 10.1021/acs.jpca.4c02287;
6. 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 puncte.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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 C5 –C8 unsaturated alcohols of biogenic interest, J. Phys. Chem. A, 126(27):4413-4423, 2022.
13. 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.
14. 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.
15. 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.
16. 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.

17. 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.
18. Grira, A., Amarandei, C., Romanias, M.N., El Dib, G., Canosa, A., Arsene, C., Bejan, I.G., Olariu, R.I.,\* Coddeville, P., Tomas, A., Kinetic Measurements of Cl Atom Reactions with C-5-C-8 Unsaturated Alcohols, *Atmosphere*, 11, 256;1-15, 2020.
19. 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.
20. Coman-Babusanu A.C., Olariu R.I., Butnaru E., Arsene C., Dissipation kinetics of tebuconazole on *Malus domestica* (Golden Delicious and Jonathan) in an apple orchard from north-eastern Romania, *Journal of Liquid Chromatography and Related Technologies*, 42(17-18), 582- 592, 2019.
21. Humelnicu, D., Valentin Soroaga, L., Arsene, C., Humelnicu, I., Olariu, R.I., Adsorptive performance of soy bran and mustard husk towards arsenic (V) ions from synthetic aqueous solutions, *Acta Chimica Slovenica*, 66 (2), 326-336, 2019.
22. Giorgiana Galon-Negru, A., Iulian Olariu, R., Arsene, C., Chemical characteristics of size-resolved atmospheric aerosols in Iasi, north-eastern Romania: Nitrogen-containing inorganic compounds control aerosol chemistry in the area, *Atmospheric Chemistry and Physics* 18, 5879-5904, 2018.
23. Dragan, E.S., Humelnicu, D., Dinu, M.V., Olariu, R.I., Kinetics, equilibrium modeling, and thermodynamics on removal of Cr(VI) ions from aqueous solution using novel composites with strong base anion exchanger microspheres embedded into chitosan/poly(vinyl amine) cryogels, *Chemical Engineering Journal*, 330, 675-691, 2017.
24. Pinto, R.M., Guerra, M., Copeland, G., Olariu, R.I., Rodrigues, P., Teresa Barros, M., Lourdes Costa, M., Dias, A.A., The mechanism of pyrolysis of benzyl azide: Spectroscopic evidence for benzenemethanimine formation, *Journal of Physical Chemistry A*, 119, 4118-4126, 2015.
25. Bejan, I. , Duncianu, M., Olariu, R., Barnes, I., Seakins, P.W., Wiesen, P., Kinetic study of the gas-phase reactions of chlorine atoms with 2-chlorophenol, 2-nitrophenol, and four methyl-2-nitrophenol isomers, *Journal of Physical Chemistry A*, 119, 4735-4745, 2015.
26. Braure, T., Riffault, V., Tomas, A., Olariu, R.I., Arsene, C., Bedjanian, Y., Coddeville, P., Ozonolysis of a Series of Methylated Alkenes: Reaction Rate Coefficients and Gas-Phase Products, *Journal of Chemical Kinetics*, 47 (9), 596-605, 2015.
27. Sandu I., Olariu R.I., Sandu I.G., Stirbu C., Pascu C., Vasilache V., Vione D., Arsene C., Investigation of the dynamics and kinetics involved in saline aerosol generation under air erosion of pure and contaminated halide salts, *Journal of Aerosol Science*, 81, 100-109, 2015.
28. Olariu R.-I., Vione D., Grinberg N., Arsene C., Applications of liquid chromatographic techniques in the chemical characterization of atmospheric aerosols, *Journal of Liquid Chromatography and Related Technologies*, 38 (3), 322-348, 2015.
29. 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.
30. Duncianu M., Olariu R.I., Riffault V., Visez N., Tomas A., Coddeville P. Development of a new flow reactor for kinetic studies. Application to the ozonolysis of a series of alkenes, *Journal of Physical Chemistry A*,116(24), 6169-6179, 2012.
31. Dulman V., Cucu-Man S.M., Olariu R.I., Buhaceanu R., Dumitras M., Bunia I. .A new heterogeneous catalytic system for decolorization and mineralization of Orange G acid dye based on hydrogen peroxide and a macroporous chelating polymerDyes and Pigments, 95, 79-88, 2012.
32. Gherasim, C.V., Bourceanu, G., Olariu, R.I., Arsene, C. A novel polymer inclusion membrane applied in chromium (VI) separation from aqueous solutions, *Jurnal of Hazardous Materials*, 197, 244-253, 2011.
33. Cernat, R.I., Mihaiescu, T., Vornicu, M. Vione, D., Olariu, R.I., Arsene, C., Serum trace metal and ceruloplasmin variability in individuals treated for pulmonary tuberculosis, *International Journal of Tuberculosis and Lung Diseases*, 15(9), 1239-1245, 2011.

34. Cecilia Arsene, Romeo Iulian Olariu, Pavlos Zarmpas, Maria Kanakidou, Nikolaos Mihalopoulos, Ion composition of coarse and fine particles in Iasi, north-eastern Romania: Implications for aerosols chemistry in the area, *Atmospheric Environment* 45, 906-916, 2011.
35. Cecilia Arsene, Davide Vione, Nelu Grinberg, Romeo Iulian Olariu, GCxGC-MS HYPHENATED TECHNIQUES FOR THE ANALYSIS, OF VOLATILE ORGANIC COMPOUNDS IN AIR, *Journal of Liquid Chromatography & Related Technologies*, 34, 1077–1111, 2011.
36. Gherasim, C.V., Bourceanu, G., Olariu, R.I., Arsene, C. Removal of lead(II) from aqueous solutions by a polyvinyl-chloride inclusion membrane without added plasticizer, *Journal of Membrane Science*, 377( 1-2), 167-174, 2011.
37. Stefan Marius, Hritcu Lucian, Mihasan Marius, Pricop Daniela, Gostin Irina, Olariu Romeo-Iulian, Dunca Simona, Melnig Viorel, Enhanced antibacterial effect of silver nanoparticles obtained by electrochemical synthesis in poly(amide-hydroxyurethane) media, *J Mater Sci Mater Med*. 22(4):789-96, 2011.
38. Romeo-Iulian Olariu, Davide Vione, Nelu Grinberg, Cecilia Arsene, Sample preparation for trace analysis by chromatographic methods, *Journal of Liquid Chromatography & Related Technologies*, 33, 9, 1174-1207, 2010.
39. R.M. Pinto, R.I. Olariu, J. Lameiras, F.T. Martins, A.A. Dias, G.J. Langley, P. Rodrigues, C.D. Maycock, J.P. Santos, M.F. Duarte, M.T. Fernandez, M.L. Costa, Study of selected benzyl azides by UV photoelectron spectroscopy and mass spectrometry, *Journal of Molecular Structure* 980, 163–171, 2010.
40. Davide Vione, Swapna Khanra, Simona Cucu Man, Pratap Reddy Maddigapu, Radharani Das, Cecilia Arsene, Romeo-Iulian Olariu, Valter Maurino, Claudio Minero, Inhibition vs. enhancement of the nitrate-induced phototransformation of organic substrates by the OH scavengers bicarbonate and carbonate, *Water Research* 43, 4718 – 4728, 2009.
41. Vione Davide, Lauri Vittorio, Minero Claudio, Maurino Valter, Malandrino Mery Carlotti Maria Eugenia, Olariu Romeo-Iulian, Arsene Cecilia, Photostability and photolability of dissolved organic matter upon irradiation of natural water samples under simulated sunlight, *Aquatic Sciences*, 71 (1), 34-45, 2009.
42. Davide Vione, Valter Maurino, Claudio Minero, Marius Duncianu, Romeo-Iulian Olariu, Cecilia Arsene, Mohamed Sarakha, Gilles Mailhot, Assessing the transformation kinetics of 2- and 4-nitrophenol in the atmospheric aqueous phase. Implications for the distribution of both nitroisomers in the atmosphere, *Atmospheric Environment* 43 (14), 2321-2327, 2009.
43. Vione, D., Maurino, V, Cucu-Man, S., Khanra, S., Arsene, C., Olariu, R., Minero, C., Formation of organobrominated compounds in the presence of bromide under simulated atmospheric aerosol conditions, *Chemistry Sustainable Chemistry*, 1, 197–204, 2008.
44. Arsene Cecilia, Olariu Romeo Iulian, Mihalopoulos Nikolaos, Chemical composition of rainwater in the northeastern Romania, Iasi region (2003-2006), *Atmospheric Environment* 41, 9452 - 9467, 2007.
45. Bejan Iustinian, Barnes Ian, Olariu Romeo, Zhou Shouming, Wiesen Peter, Benter Thorsten, Investigations on the gas-phase photolysis and OH radical kinetics of methyl-2-nitrophenols, *Phys. Chem. Chem. Phys.*, 9, 5686–5692, 2007.
46. F. Innocenti, M. L. Costa, A. A. Dias, M. Goubet, A. Morris, R. I. Oleriu, S. Stranges, N. Zema and J. M. Dyke, A study of the NO radical with PE and CIS spectroscopy: investigation of NO ( $b^3\Pi$ , 3p) and NO ( $b^3\Pi$ , 4p) Rydberg states, *Molecular Physics*, Vol. 105, Nos. 5–7, 771–796, 2007.
47. F. Innocenti, L. Zuin, M. L. Costa, A. A. Dias, M. Goubet, A. Morris, R. I. Oeriu, S. Stranges, J. M. Dyke, A study of the CF radical with PE and CIS spectroscopy: investigation of Rydberg states above the first ionization threshold, *Molecular Physics*, Vol. 105, Nos. 5–7, 755–769, 2007.
48. Davide Vione, Gianpaolo Falltti, Valter Maurino, Claudio Minero, Ezio Pelizzetti, Mery Malandrino, Roberto Ajassa, Romeo-Iulian Olariu and Cecilia Arsene, Sources and Sink of Hydroxyl radicals upon Irradiation of Natural Water Samples, *Environmental Science & Technology*, 40, 3775-3781, 2006.
49. 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.

50. J.P. Santos, M.L. Costa, R.I. Olariu, F. Parente, Theoretical study of the molecular proprieties of benzyle oxide, 2-, 3-, 4-methylbenzyl azide, The European Physical Journal D, 29, 379-384, 2006.
51. Mark A. J. Harrison, Silvia Barra, Daniele Borghesi, Davide Vione, Cecilia Arsene, Romeo Iulian Olariu, Nitrated phenols in the atmosphere: a review. Atmospheric Environment, 39, 231-248, 2005.
52. R.I. Olariu; I. Bejan, I. Barnes, B. Klotz, K.H. Becker, K. Wirtz, Rate Coefficient for the Gase-Phase Reaction of NO<sub>3</sub> Radicals with Selected Dihydroxybenzene. International Journal of Chemical Kinetics, 36, 577-583, 2004.
53. Tomas, A., Olariu, R.I., Barnes, I. and Becker, K.H., Kinetics of the Reaction of O<sub>3</sub> with Selected Benzenediols, International Journal of Chemical Kinetics, 35 223-230, 2003.
54. Olariu, R.I., Barnes, I., Becker, K.H., Klotz, B., 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.
55. Geiger, H.; Barnes, I.; Becker, K.H.; Bohn, B.; Brauers, T.; Donner, B.; Dorn, H.P.; Elend, M.; Freitas Dinis, C.M.; Grossmann, D.; Hass, H.; Hein, H.; Hoffmann, A.; Hoppe, L.; Hülsemann, F.; Kley, D.; Klotz, B.; Libuda, H.G.; Maurer, T.; Mihelcic, D.; Moortgat, G.K.; Olariu, R.I.; Neeb, P.; Poppe, D.; Ruppert, L.; Sauer, C.G.; Shestakov, O.; Somnitz, H.; Stockwell, W.; Thürner, L.P.; Wahner, A.; Wiesen, P.; Zabel, F.; Zellner, R. and Setzsch, C., Chemical Mechanism Development: Laboratory Studies and Model Applications, Journal of Atmospheric Chemistry, 42, 323-357, 2002.
56. Wietkamp, C.; Baumbach, G.; Becker, K.H.; Braun-Schoen, S.; Burger, H.; Dinev, S.; Fabian, R.; Frey, S.; Fritzsche, K.; Glaser, J.; Glauer, F.; Herb, F.; Immler, Junkermann, W.; Kanter, H.J.; Lindemann, C.; Loescher, A.; Mohnen, V.A.; Möller, D.; Neidhart, B.; Olariu, R.I.; Reimer, E.; Schmidt, V.; Schubert, G.; Spittler, M.; Vogt, U.; Weidauer, D.; Windholtz, L.; Wöste, L. Wie richtig sind Lidarmessungen der Ozonverteilung?, Gefahrstoffe-Reinhaltung der Luft, Bd. 60, Nr. 7/8 S. 279/284, ISSN 0344-9629, 2000.
57. Olariu, R.I.; Barnes, I.; Becker, K.H. and Klotz, B., Rate Coefficients for the Gas-Phase Reaction with OH Radicals with Selected Dihydroxybenzenes and Benzoquinones, International Journal of Chemical Kinetics, 32-696-702, 2000.
58. Mangalagiu, G. C.; Mangalagiu, I.I.; Olariu, R.I. and Petrovanu, M.G., 4-Methylpyrimidinium Ylides II: Selective Reactions of Pyrimidinium Ylides with Activated Alkynes, Synthesis, 14, 2047-2050, 2000.

## ISI-naționale

59. Bibire, N., Olariu, R.I., Agoroaei, L., Vieriu, M., Panainte, A.D., Cernat, R.I., Arsene, C., Reversed-Phase High Performance Liquid Chromatographic Analysis of Three First Line Anti-Tuberculosis Drugs, Revista de Chimie, 69, 12, 3590-3592, 2018.
60. Marin, S.L., Balusescu, G.M., Paduraru, M. Roman, C. Sandu, I.G. Olariu, R.I., Arsene, C., Vasilache, V., Authentication and evaluation of the technique of minting the romanian coins of the 20th Century. Revista de Chimie, 68, 2155-2159, 2017.
61. Negru, I.C. Vasilache, V., Sandu, I., Olariu, R.I., Tanasa, P.O., Potolinca, D., Sandu, I.C.A., Depth profiling of diffraction-based security features in authentic and counterfeit banknotes, Materiale Plastice, 54, 321-325, 2017.
62. Alina-Giorgiana Negru, Cecilia Arsene, Ana-Maria Zbancio, Ionel I. Mangalagiu, Romeo Iulian Olariu, Physico-chemical Behaviour of Newly Synthesized Macrocyclic Compounds. A reality between expectations and experimental evidences, Revista de Chimie, 66(9), 13391342, 2015.
63. Pindaru D.M., Tanase C., Olariu R.I., Arsene C., Chemical composition and ions concentration in xanthoria parietina and phaeophyscia orbicularis lichenised fungi species from Iasi, North-Eastern Romania, Revista de Chimie, 64(8), 807-814, 2013.
64. Pindaru D.M., Tanase C., Olariu R.I., Arsene C., Extra and intercellular concentrations of water soluble cations from Xanthoria parietina and Phaeophyscia orbicularis lichenized fungi species, Revista de Chimie, 64(7), 715-719, 2013.
65. Ioana Adriana Stefanescu, Lucian Gavrilă, Raluca Delia Mocanu, Romeo Iulian Olariu, Cecilia Arsene, Bioremediation Perspective of Bacillus Megaterium Towards Heavy Metals in Environments Enriched with Phosphogypsum, Revista de Chimie, 62 (2), 245-249, 2011.

66. Roberta Ionela Cernat, Raluca Delia Mocanu, Elena Popa, Ion Sandu, Romeo Iulian Olariu, Cecilia Arsene, Investigation of Chemical Parameters in Biological Systems, Revista de Chimie, 61 (10), 1130-1135, 2010.
67. Doina Humelnicu, Cecilia Arsene, Bety Burghel, Mihaela Bertescu, Ionel Humelnicu, Ion Sandu, Dorina Mantu, Romeo-Iulian Olariu, Interaction of Actinide Cations with Heteropolyoxotungstate Ions  $[\text{SiW}_{11}\text{O}_{39}]^{8-}$  and  $[\text{SiW}_{12}\text{O}_{40}]^{4-}$ , Revista de Chimie, 61 (9), 841-844, 2010.
68. Alexandru Cecal, Florica Ionica, Romeo Olariu, Gheorghe Nemtoi, Liliana Airinei, Radiometric method for the study of the steels corrosion, Environmental Engineering and Management Journal, 9(7), 939-944, 2010.
69. Danut Cozma, Catalin Tănase, Cristian Tunsu, Romeo-Iulian Olariu, Alin Ionaș, Aurel Pui, Statistic study of heavy metal distribution In the specific mushrooms from the steril Dumps călimani area, Environmental Engineering and Management Journal, 9 (5), 659-665, 2010.
70. Romeo-Iulian Olariu, Doina Humelnicu, Ion Sandu, Ionel Humelnicu, Cecilia Arsene, Caracterizarea fizico-chimica a unui derivat nou de silice-polioxometalat obtinut prin tratament termic, Revista de Chimie 60 (11), 1216-1219, 2009.
71. Doina Humelnicu, Romeo-Iulian Olariu, Ion Sandu, Ionel Humelnicu, Andrei Victor Sandu, Cecilia Arsene, Studies on Chemical Interferences on Uranium (VI) and Thorium (IV) Reaction with (iso)polyoxometalates, Revista de Chimie 60 (12), 1264-1269, 2009.
72. Vione, D., Casanova, I., Minero, C., Duncianu, M., Olariu, R.-I., Arsene, C., Assessing the potentiality of Romanian surface waters to produce hydroxyl and nitrite radicals, Revista de Chimie 60 (2), 123-126, 2009.
73. Vione, D., Ravizzoli, B., Rinaldi, E., Pettinato, F., Arsene, C., Olariu, R.-I., Studies regarding groundwater quality at rural sites: 1. Estimation of the anthropic factor impact by complementary chemical analyses, Revista de Chimie 60 (3), 237-240, 2009.
74. Vione, D., Rinaldi, E., Minero, C., Maurino, V., Olariu, R.-I., Arsene, C., Studies regarding groundwater quality at rural bites. 2. Photochemical generation of OH and NO<sub>2</sub> radicals upon UV-A irradiation of nitrate-rich groundwater, Revista de Chimie 60 (6), 551-554, 2009.
75. R.I.Olariu, D. Humelnicu, C. Arsene, I. Sandu, G. Carja, Synthesis and chemical characterization of new derivative complexes from  $\text{UO}_2^{2+}$  and  $\text{Th}^{4+}$  ions with the (iso)polioxomolybdate and (iso)polioxotungstate clusters Revista de Chimie, 59(9), 1052-1056, 2008.
76. D. Humelnicu, R.I. Olariu, I. Sandu, N.Apostolescu, A.V. Sandu, C. Arsene, New heteropolyoxotungstates and heteropolyoxomolybdates containing radioactive ions (uranyl and thorium) in their structure, Revista de Chimie, 59(8), 920-925, 2008.
77. Doina Humelnicu, Romeo Iulian Olariu, Alexandru Cecal, Recovery of some inorganic compounds from the sludges resulted after the leaching of uranyl ions from uranium ores, Journal of Environmental Engineering and Management, Vol.7, No.4, 401-407, 2008.
78. Tanase Catalin, Aurel Pui, Olariu Romeo si Cozma Danut-Gabriel, Analysis of heavy metals contnt in the soil and in the macromycetes species growing on mine waste dumps, Revista de Chimie 59(5), 479-485, 2008.
79. Cecilia Arsene, Ian Barnes, Romeo Iulian Olariu, Karl Heinz Becker, Dimethyl sulphide photo-oxidation at various NO<sub>2</sub> concentrations.1. Product study and mechanistic investigations. Revue Roumanie de Chimie, 50(6), 359-369, 2005.
80. Cecilia Arsene, Romeo Iulian Olariu and Ian Barnes, Dimethyl sulphide photo-oxidation at various NO<sub>2</sub> concentrations. 2. Investigation of particle formation, Revue Roumanie de Chimie, 50, (6) 487-492, 2005.
81. Suteu D., Paduraru C., Olariu R.I., Utilizarea materialelor celulozice in depoluarea apelor reziduale, Revista de Chimie, 49 (7), 467-469, 1998.
82. G. Irimia, R. Mocanu, R. Olariu, I. Sarghie, Quantitative study of Ni (II) and Mn (II) chelates with o-substituted hydroxybenzophenon by extractive-polarographic methods and extractive-photochemical methods, Revista de Chimie, 48 (5), 395-398, 1997.

**e) articole/studii publicate în extenso, în volumele conferințelor internaționale de specialitate**

1. Soroaga, L.V., Arsene, C., Olariu, R.I., The evaluation of Na<sub>2</sub>O<sub>2</sub> as a sintering agent in solid state dissolution of potential secondary sources for rare earth elements, SGEM International Multidisciplinary Scientific GeoConference, 21st International Multidisciplinary Scientific GeoConference SGEM 2021. <https://doi.org/10.5593/sgem2021V/4.2/s18.08>.
2. Cecilia Arsene, Simona Maria Cucu Man and Romeo Iulian Olariu, The Importance of the Laboratory Quality Management System in the Academic Curriculum in Developing Appropriate Student Competences for Our Current Societal Needs, Proceedings 2020, 55(1), 7; <https://doi.org/10.3390/proceedings2020055007>.
3. Cornelia Amarandei, Romeo Iulian Olariu and Cecilia Arsene, Implications of Matrix Effects in Quantitative HPLC/ESI-ToF-MS Analyses of Atmospheric Organic Aerosols, Proceedings 2020, 55(1), 6; <https://doi.org/10.3390/proceedings2020055006>.
4. Borcia C. G., Soroaga, L. V., Olariu, R. I., Nica, V., Pintilei, M., Evaluating the efficiency of rare earth elements recovery from tailings using environmentally friendly methods, 7th International Multidisciplinary Scientific GeoConference SGEM 2017, [www.sgemviennagreen.org](http://www.sgemviennagreen.org), SGEM2017 Vienna GREEN Conference Proceedings, ISBN 978-619-7408-28-7 / ISSN 1314-2704, 27 - 29 November 2017, Vol. 17, Issue 43, 75-82, DOI: 10.5593/sgem2017H/43/S18.010
5. Olariu, Romeo-Iulian; Duncianu, Marius; Arsene, Cecilia, Determination of photolysis frequencies for selected carbonyl compounds in the EUPHORE chamber, Environmental Simulation Chambers: Application to Atmospheric Chemical Processes, NATO Science Series IV Earth and Environmental Sciences, 62, 121-128, 2006.
6. Bejan, Iustinian; Barnes, Ian; Olariu, Romeo, FT-IR kinetic study on the gas-phase reactions of the OH radical with a series of nitroaromatic compounds, Environmental Simulation Chambers: Application to Atmospheric Chemical Processes, NATO Science Series IV Earth and Environmental Sciences, 62, 155-162, 2006.
7. Arsene, Cecilia; Mihalopoulos, Nikos; Olariu, Romeo-Iulian, Atmospheric wet deposition monitoring in Iasi, Romania, Environmental Simulation Chambers: Application to Atmospheric Chemical Processes, NATO Science Series IV Earth and Environmental Sciences 62, 369-377, 2006.
8. Olariu, R.I.; Barnes, I.; Bejan, I.; Becker, K.H. and Wirtz, K., Rate Constants for the Gas-Phase Reaction of the NO<sub>3</sub> Radicals with a Series of Benzodiol Compounds., Proceedings from 17th International Symposium on Gas Kinetics, 2002, AP04.
9. Bejan, I.; Olariu, R.I.; Barnes, I.; Benter, Th. and Wirtz, K., FT-IR Investigation of the Gas-Phase Reaction of the NO<sub>3</sub> Radical with a Series of Benzodiol Compounds in Proceedings from the EC/EUROTRAC-2 Joint Workshop, EC Cluster "Chemical Mechanism Development", Shaping the future of the Atmospheric Chemistry research in Europe, 2002, p20.
10. Tomas, A.; Olariu, R.I.; Barnes, I.; Bejan, I.; Geiger, H. and Mocanu, R., Atmospheric Chemistry of Benzenediols. Reaction with O<sub>3</sub> in Proceedings from the EUROTRAC-2 Symposium 2002, Margraf Verlag, Weikersheim 2002.
11. Olariu, R.I.; Barnes, I.; Becker, K.H.; Klotz, B., FT-IR Product Study on the Gas-Phase Reaction of NO<sub>3</sub> Radical with Phenolic Compounds, in Proceedings of the "A Changing Atmosphere", 8th European Symposium on the Physico-Chemical Behaviour of Atmospheric Pollutants, eds. Jens Hjorth and Niels Jensen, 2002, AP20.
12. Olariu, R.I.; Barnes, I.; Becker, K.H.; Klotz, B. and Mocanu, R., FT-IR Product Study of the OH-Radical Initiated Photo-oxidation of Phenol, o-, m-, and p-Cresol, in Proceedings of the EC/EUROTRAC-2 Joint Workshop, EC Cluster "Chemical Mechanism Development", eds. M.J. Rossi and E.M. Rossi, pp. 60-63, 2000.
13. Barnes, I.; Becker, K.H.; Klotz, B.; Olariu, R.I. and Mocanu, R., Development of Oxidation Mechanisms for Aromatic Hydrocarbons and their Unsaturated Difunctional Products in Proceedings from the EUROTRAC-2 Symposium 2000, CMD Annual report 2000, p33.

## g) Alte lucrări și contribuții științifice

### g1) Lucrări apărute în reviste de specialitate din străinătate fără factor de impact

1. I. Bejan, I. Barnes, R.I. Olariu, C. Arsene, K.H. Becker, K. Wirtz. Kinetic with NO<sub>3</sub> radicals in EUPHORE chamber, EUPHORE, 5H REPORT 2002, eds.: Ian Barnes Compiled and Produced by Institute of Physical Chemistry, Bergische Universität Wuppertal, Germany, 2005.
2. R.I. Olariu, Al. Tomas, I. Barnes, I. Bejan, K.H. Becker, K. Wirtz. Atmospheric Ozone Degradation Reaction of 1,2-Dihydroxybenzene: Aerosol Formation Study in The European Photoreactor EUPHORE, 4TH REPORT 2001, ISBN 84-921259-2-6, eds.: Ian Barnes and

- Klaus Wirtz, Compiled and Produced by Institute of Physical Chemistry, Bergische Universitat Wuppertal, Germany & Fundacion Centro de Estudios del Mediterraneo Valencia, 54-71, 2004.
3. C. Arsene, I. Barnes, M. Albu, R.I. Olariu, K.H. Becker, K. Wirtz. Mechanistic Studies on the Atmospheric Oxidation of Organic Sulphur Compounds, in in The European Photoreactor EUPHORE, 4TH REPORT 2001, ISBN 84-921259-2-6, eds.: Ian Barnes and Klaus Wirtz, Compiled and Produced by Institute of Physical Chemistry, Bergische Universitat Wuppertal, Germany & Fundacion Centro de Estudios del Mediterraneo Valencia, 152-165, 2004.
  4. R.I. Olariu, I. Barnes, C. Arsene, K.H. Becker, K. Wirtz, C. Maldonado and M. Ponds, Studies on the Atmospheric Oxidation of Phenol: I. Gas-Phase Product Analysis, in The European Photoreactor EUPHORE, 3RD REPORT 2000, eds.: Ian Barnes and Howard Sidebottom, Compiled and Produced by Institute of Physical Chemistry, Bergische Universitat Wuppertal, Germany, pp. 16-26, 2001.
  5. R.I. Olariu, I. Barnes, C. Arsene, K.H. Becker and K. Wirtz, Studies on the Atmospheric Oxidation of Phenol: II. Secondary Organic Aerosol Formation, in The European Photoreactor EUPHORE, 3RD REPORT 2000, eds.: Ian Barnes and Howard Sidebottom, Compiled and Produced by Institute of Physical Chemistry, Bergische Universitat Wuppertal, Germany, 26-38, 2001.
  6. C. Arsene, I. Barnes, R.I. Olariu, K.H. Becker, K. Wirtz, C. Maldonado, OH-Radical Initiated Oxidation of Dimetil Sulphide and its Impact on Particle Formation, in The European Photoreactor EUPHORE, 3RD REPORT 2000, eds.: Ian Barnes and Howard Sidebottom, Compiled and Produced by Institute of Physical Chemistry, Bergische Universitat Wuppertal, Germany, 82-98, 2001.
  7. R.I. Olariu, B. Klotz, I. Barnes, K.H. Becker, Atmospheric Nitration of Phenolic Compounds, in The European Photoreactor EUPHORE, 2nd, REPORT, eds. I. Barnes and K. Brockmann, Wuppertal, Germany, pp. 98-105, 2000.
  8. Gavriloaiei T., Mocanu R., Calistru M., Olariu R., Comparative study of biosorption of metallic cations by different bacteria, Southern Brazilian Journal of Chemistry, 6, (6), 33-34, 1998.

## **g2) Lucrari apărute în reviste din țară fără indice de impact, recunoscute de CNCSIS**

1. Coman (Babusanu), A.C., Butnaru, E., Mardare (Balusescu), G., Olariu, R.I., Arsene, C., GC-MS analysis of Malus domestica bark and leaf extracts in pesticide non-exposed and exposed matrices, Rev. Med. Chir. Soc. Med. Nat., 122, 198-206, 2018.
2. Pandaru, D.M., Tanase, C. Arsene, C. Olariu, R.I., Micro morphological and chemical aspects of some lichenized fungi species, Journal of Plant Development, 19, 37-82, 2012.
3. Olariu, R.I., Arsene, C., Humelnicu, D., Vasilache, V., Solid-phase extraction and spectrophotometric determination of ultra trace thorium (IV) in water samples, International Journal of Criminal Investigation, 1, 25-30, 2011.
4. Doina Humelnicu, Romeo Iulian Olariu, Cecilia Arsene, Mihaela Bertescu, Bety Burghele, A comparative study on the removal of uranyl ions from artificially enriched radioactive waters using clays from Romania, ANALELE ȘTIINȚIFICE ALE UNIVERSITĂȚII „AL. I. CUZA” IAȘI, Geologie. Tomul LVI, nr. 1, 85-93, 2010.
5. Humelnicu D, Olariu R-I, Arsene C, Humelnicu I. New isopolyoxomolybdates derived from heptamolybdate, with UO<sub>2</sub><sup>2+</sup> and Th<sup>4+</sup> ions. Ovidius University Annals of Chemistry 20 (2), 227-230, 2009.
6. Marius Duncianu, Romeo Iulian Olariu, Cecilia Arsene, Raluca Mocanu, Klaus Wirtz, Montserrat Martin Reviejo, Spectroradiometric determination of the photolysis frequency of NO<sub>2</sub> in Euphore chamber, Anal. St. ale Univ. Al.I. Cuza Iasi, seria Chimie, 12, 17-24, 2004.
7. Cecilia Arsene, Ian Barnes, Romeo-Iulian Olariu, Raluca Mocanu and Karl-Heinz Becker, Investigation of particle formation in the photo-oxidation of selected organic sulphur-containing compounds, Analele Universității din Craiova, Seria Chimie, Vol. XXXI, 87-92, 2002.
8. Romeo-Iulian Olariu, Ian Barnes, Cecilia Arsene, Karl-Heinz Becker, Raluca Mocanu, Klaus Wirtz and Montse Martin Reviejo, Studies of the atmospheric oxidation of phenol in the EUPHORE chamber, Analele Universității din Craiova, Seria Chimie, Vol. XXXI, 93-98, 2002.
9. Mangalagiu, I. Ciocoiu, R. Olariu, I. Jitaru, A. Meghea, C. Guran, Complex compounds of some 3d-metals with 3-(p-tolyl)-pyridazone, Analele Universitatii "AL. I. Cuza" Iasi, Secția chimie, IV, 143-148, 1997.

## **g3) Lucrări susținute la manifestări, simpozioane și congrese:**

### **g.3.1) în țară:**

## prezentare orală:

1. Soroaga, L.V., Arsene, C., Olariu, R.I., The importance of tailored calibration for quadrupole ICP-MS measurements, the Vth Faculty of Chemistry Conference, IasiCHEM 5-MIT, 26-27 Octombrie 2023, Iasi.
2. Roman, C., Amarandei, C., Negru, A.G., Arsene, C., Bejan, I.G., Tomas, A., Olariu, R.I., The atmospheric fate of a gaseous transformation product of limonene, the Vth Faculty of Chemistry Conference, IasiCHEM 5-MIT, 26-27 Octombrie 2023, Iasi
3. The 10th Scientific Session of Undergraduate, Master and PhD Students, communication, Iasi, Romania Olariu, R.I., Overview of relevant atmospheric chemistry data from ESC-Q-UAIC studies, Book of Abstracts, pp. 7, 20-21 June, 2019. <http://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>
4. IasiCHEM2018, Iasi, Romania, 25-26 October, 2018, Olariu, R.I., Arsene, C., Relevant kinetic data for atmospheric degradation of selected volatile organic compounds: ESC-Q-UAIC Simulation Chamber Studies,
5. Universitatea "Ion Ionescu" de la Brad din Iasi, Romania, 08-09 Decembrie 2017, Romeo-Iulian OLARIU, Cecilia ARSENE, Centrul CERNESIM: O nouă infrastructură de cercetare pentru studii integrate de mediu inclusiv de biodiversitate pentru Regiunea de Nord-Est a României "Aspecte etologice și ecologice privind ornitofauna urbană din zona Moldovei",
6. Rm. Vâlcea, 6-8 octombrie, 2010, R. I. Olariu, C. Arsene, D. Humelnicu, Solid-phase extraction-spectrophotometric determination of the radionuclides in water samples, XXXI-a Conferință Națională de Chimie, , Romania, ISBN, 978-973-750-194-3, p. 230.
7. Bucharest, 5 -8 October 2006, 2nd International Conference on Environmental Research and Assessment, Cecilia Arsene, Romeo-Iulian Olariu, Nikos Mihalopoulos, Organic acidity in a wet precipitation study in the northeastern Romania, p1.
8. Iasi, 27-28 octombrie 2007, Zilele Universității "Al. I. Cuza", Olariu Romeo-Iulian, Arsene Cecilia, Humelnicu Doina. Development of a new analytical instrument for the rapid analysis of environmental media containing multiple non-gamma emitting radionuclides.
9. Iasi, 27-28 octombrie 2006, Zilele Universității "Al. I. Cuza", Duncianu Marius, Bejan Iustinian, Olariu Romeo, Mocanu Raluca, Barnes Ian, Karl-Heinz Becker, Chimismul atmosferic al radicalilor fenoxi, p4.
10. Brasov, Romania, 8-10 September 2005, 2nd INTERNATIONAL CONFERENCE ON TREND IN ENVIRONMENTAL EDUCATION, ENVEDU 2005, R.I. Olariu, K. Wirtz, K.H. Becker, EUPHORE, p21.
11. Iași, 29-30 octombrie 2004, Sesiunea de Comunicări Științifice „Zilele Universității „Al.I. Cuza” Iași. Marius Duncianu, Romeo Iulian Olariu, Klaus Wirtz, Cecilia Arsene si Raluca Mocanu, Determinarea frecvențelor de fotoliza ale unor specii chimice din atmosfera pe baza masuratorilor spectrale ale fluxului actinic, p7.
12. Iași 31octombrie-01 noiembrie, 2003, Sesiunea de Comunicări Științifice „Zilele Universității „Al.I. Cuza” Iași, Duncianu, M., Olariu, R.I. și Wirtz, K., Utilizarea datelor radiometrice în calcularea frecvențelor de fotoliză a unor poluanți chimici atmosferici, p2.
13. Iași 29-30 octombrie, 2002, Sesiunea de Comunicări Științifice „Zilele Universității „Al.I. Cuza” Iași, Olariu, R.I., Degradarea atmosferică a fenolului, Reacția cu radicalii OH, p6.

## postere:

1. Amarandei, C., Olariu, R. I., Arsene, C.: Measurements of 4-nitrophenol and 4-nitrocatechol in urban aerosols from north-eastern Romania, CNChim2022 XXXVI ed., pp. 23, 04-07 October 2022, Călimănești-Căciulata, Romania.
2. Negru, A. G., Apostol, V., Iancu, C., Amarandei, C., Bejan, I. G., Olariu, R. I., Arsene, C.: Investigations on optical properties of atmospheric aerosols from Iasi, north-eastern Romania, CNChim2022 XXXVI ed., pp. 24, 04-07 October 2022, Călimănești-Căciulata, Romania.
3. Roman, C., Arsene, C., Bejan, I. G., Vione, D., Olariu, R. I.: Atmospheric break-down of 4-isobutylacetophenone, a toxic transformation product of ibuprofen, CNChim2022 XXXVI ed., pp. 86, 04-07 October 2022, Călimănești-Căciulata, Romania.
4. Soroaga, L. V., Arsene, C., Olariu, R. I.: Method assessment for the quantification by ICP-MS of rare and refractory elements from silicate-rich samples, CNChim2022 XXXVI ed., pp. 29, 04-07 October 2022, Călimănești-Căciulata, Romania.
5. Măirean, C. P., Roman, C., Bejan, I. G., Arsene, C., Olariu, R. I.: Gas-phase kinetic study of the OH radicals with some selected cis- 3-hexenyl esters under simulated atmospheric conditions, CNChim2022 XXXVI ed., pp. 214, 04-07 October 2022, Călimănești-Căciulata, Romania.

6. Rusu (Vasilache), A. M., Roman, C., Bejan, I. G., Arsene, C., Olariu, R. I.: Ozonolysis of selected methyl-butenols under atmospheric relevant simulated conditions, CNChim2022 XXXVI ed., pp. 86, 04-07 October 2022, Călimănești-Căciulata, Romania.
7. Amarandei, C., Olariu, R. I., Arsene, C.: Mass spectrometry-based molecular profile evaluation for new insights into the atmospheric aerosols, Scientific Communication Session for Undergraduate, Master and PhD Students (SCSSMD) XIII ed., pp. 28, 28 October 2022, Iași, Romania.
8. Măirean, C. P., Roman, C., Bejan, I. G., Arsene, C., Olariu, R. I.: Gas-phase ozonolysis of three cis-3-hexenyls esters under simulated atmospheric conditions, Scientific Communication Session for Undergraduate, Master and PhD Students (SCSSMD) XIII ed., pp. 26, 28 October 2022, Iași, Romania.
9. Rusu (Vasilache), A. M., Roman, C., Arsene, C., Bejan, I. G., Olariu, R. I.: OH-tracer versus OH-scavenger use in the gas-phase kinetic study of the methyl-butenols ozone-initiated reactions, Scientific Communication Session for Undergraduate, Master and PhD Students (SCSSMD) XIII ed., pp. 14, 28 October 2022, Iași, Romania.
10. Roman, C., Bejan, I.G., Arsene, C., Olariu, R.I., PTR-ToF-MS data interpretation for gas phase vocs measurements using the ESC-Q-UAIC atmospheric simulation chamber facility, The 10th Scientific Session of Undergraduate, Master and PhD Students, poster, Iasi, Romania, Book of Abstracts, pp. 56, 20-21 June, 2019. <http://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>
11. Amarandei, C., Galon (Negru), A.G., Olariu, R.I., Arsene, C., High-performance liquid chromatography time-of-flight mass spectrometry method development for investigation of organic aerosols, The 10th Scientific Session of Undergraduate, Master and PhD Students, poster, Iasi, Romania, Book of Abstracts, pp. 46, 20-21 June, 2019. <http://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>
12. Galon (Negru), A.G., Olariu, R.I., Arsene, C., The nucleation and growth rates of atmospheric particles in Iasi, northeastern Romania, The 10th Scientific Session of Undergraduate, Master and PhD Students, poster, Iasi, Romania, Book of Abstracts, pp. 48, 20-21 June, 2019. <http://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>
13. Roman, C., Arsene, C., Olariu, R.I., Camera de reacție ESC-Q-UAIC, un instrument analitic adecvat pentru studiul chimiei atmosferei, Conferința Națională a Școlilor Doctorale din Consorțiul Universitaria, Editia I, Universitatea „Alexandru Ioan Cuza”, Iasi, Romania, 31 octombrie – 3 noiembrie, 2018.
14. Rusu, A.M., Roman, C., Arsene, C., Olariu, R.I., Constanta de viteză a reacției în fază gazoasă a 3-metil-2-buten-1-ol cu radicalii OH la 298 K și presiune atmosferică, Conferința Națională a Școlilor Doctorale din Consorțiul Universitaria, Editia I, Universitatea „Alexandru Ioan Cuza”, Iasi, Romania, 31 octombrie – 3 noiembrie, 2018.
15. Rusu, A.M., Roman, C., Arsene, C., Bejan, I.G., Olariu, R.I., Kinetic study of the gas-phase reaction of OH radicals with 3-methyl-2-buten-1-ol at 298 K and atmospheric pressure, IasiCHEM2018, Iasi, Romania, 25-26 October, 2018.
16. Rusu, A.M., Roman, C., Arsene, C., Bejan, I.G., Olariu, R.I., Gas chromatography-mass spectrometry (GC-MS) analysis of gaseous methylglyoxal after derivatization and solid phase extraction, The XXXV-th Romanian Chemistry Conference, Posters Section, Calimanesti-Caciulata, Valcea, Romania, 02-05 October, 2018.
17. Roman, C., Arsene, C., Bejan I.G., Olariu R.I., Rate coefficient of the gas-phase atmospheric OH radical initiated oxidation of 2-methoxyphenol, The XXXV-th Romanian Chemistry Conference, Posters Section, Calimanesti-Caciulata, Valcea, Romania, 02-05 October, 2018.
18. Roman, C., Arsene, C., Olariu, R.I., Bejan, I.G., Kinetic study of the gas-phase OH radical initiated oxidation of 2-methylfuran in atmospheric conditions, The XXXV-th Romanian Chemistry Conference, Posters Section, Calimanesti-Caciulata, Valcea, Romania, 02-05 October, 2018.
19. Galon (Negru), A.G., Olariu, R.I., Arsene, C., Investigation on new atmospheric particles formation and growth in Iasi, north-eastern Romania, The XXXV-th Romanian Chemistry Conference, Posters Section, Calimanesti-Caciulata, Valcea, Romania, 02-05 October, 2018.
20. Roman, C., Arsene, C., Bejan, I.G., Duncianu, M., Tomas, A., Riffault, V., Olariu, R.I., Rate coefficient of gas-phase O<sub>3</sub> initiated oxidation of C5-C6 unsaturated aldehydes. "CHIMIA - FRONTIERĂ DESCHISĂ SPRE CUNOAȘTERE", Sesiunea de comunicări științifice a studenților, masteranzilor și doctoranzilor, ediția a IX-a, Iași, 29-30 iunie 2018.

21. Galon (Negru), A.G., Olariu, R.I., Arsene, C., Meteorological parameters role on the formation and growth of new atmospheric particles in Iasi urban area. "CHIMIA - FRONTIERĂ DESCHISĂ SPRE CUNOAȘTERE", Sesiunea de comunicări științifice a studenților, masteranzilor și doctoranzilor, ediția a IX-a, Iași, 29-30 iunie 2018.
22. Rusu, A.M., Arsene, C., Bejan, I.G., Olariu, R.I., Development of a new method for carbonyls analysis in the atmosphere by using solid phase derivatization coupled with GC/Ion Trap MS technique. "CHIMIA - FRONTIERĂ DESCHISĂ SPRE CUNOAȘTERE", Sesiunea de comunicări științifice a studenților, masteranzilor și doctoranzilor, ediția a IX-a, Iași, 29-30 iunie 2018.
23. A.G. Galon (Negru), R.I. Olariu, C. Arsene, Atmospheric behaviour of water soluble organic anions in fine and coarse particulate matter from Iasi, Romania, "Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference Iasi, Romania, 26 - 28 October, Acta Chimica Iasi, 25(2), pp. 322, 2017.
24. C. Amarandei, A.G. Galon (Negru), S.C. Cucu-Man, R.I. Olariu, C. Arsene, Pedologic, atmospheric and anthropogenic contributions as driving forces for aquaculture water quality. A case study for an artificial lake from the north-eastern Romania, "Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference Iasi, Romania, 26 - 28 October, Acta Chimica Iasi, 25(2), pp. 324, 2017.
25. C. Roman, I. G. Bejan, C. Arsene, R.I. Olariu, FT-IR gas-phase products study of OH radicals initiated photooxidation of phenol, "Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference Iasi, Romania, 26 - 28 October, Acta Chimica Iasi, 25(2), pp. 325, 2017.
26. G. Mardare (Balusescu), R.I. Olariu, Arsene, C., QuEChERS and ultrasound-assisted extraction as preparative tools for various secondary metabolites analysis by GC-MA tehnique, "Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference Iasi, Romania, 26 - 28 October, Acta Chimica Iasi, 25(2), pp. 333, 2017.
27. Olariu, R.I., Arsene, C., Bejan, I., Newly designed simulation chamber for atmospheric chemistry investigations, XXXIV-th Romanian Chemistry Conference, A XXXIV-a Conferinta Nationala de Chimie, pp. 9, Valcea, Romania, 2016.
28. Soroaga, L.V., Arsene, C., Pintilei, M., Nica, V., Borgia, C., Olariu, R.I., Chemical characterisation of a series of samples as secondary sources for rare elements, XXXIV-th Romanian Chemistry Conference, A XXXIV-a Conferinta Nationala de Chimie, pp. 7, Valcea, Romania, 2016.
29. Galon (Negru), A.G., Olariu, R.I., Arsene, C., Vertical transport of continental air masses and their influence on the distribution of size resolved aerosols from Iasi, Romania, "Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference Iasi, Romania, 27 - 29 October, Acta Chimica Iasi, 24(2), pp. 166, 2016.
30. Coman (Babusanu), A.C., Mardare (Balusescu), G., Ababei (Hogas), G.I., Butnaru, E., Olariu, R.I., Arsene, C., Dynamics of tebuconazole and other combination fungicide formulations in Jonathan and Golden Delicious apple leaves, "Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference Iasi, Romania, 27 - 29 October, Acta Chimica Iasi, 24(2), pp. 177, 2016.
31. Bejan, I., Arsene, C., Olariu, R.I., Atmospheric chemistry investigations in a newly designed gas phase simulation chamber (ESCQ-UAIC), 3<sup>rd</sup> International Conference on Analytical Chemistry, Iasi, Romania, 28-31 August, pp. 49, 2016.
32. Galon (Negru), G.A., Pruna, I., Olariu, R.I., Arsene, C., Mono- and multimodal distributions of water soluble ionic species in urban particulate matter from Iasi, Romania, Sesiunea de comunicari stiintifice a studentilor, masteranzilor și doctoranzilor (SCSSMD), Chimia - frontiera deschisa spre cunoastere, editia VII, pp. 4, Iasi, Romania, 24 Iunie, Acta Chimica Iasi, 24(1), pp. 65, 2016.
33. Soroaga, L.V., Olariu, R.I., Galon (Negru), A.G., Arsene, C., Elemental and morphological analysis of airborne particulate matter collected in Iasi, north-eastern Romania, Sesiunea de comunicari stiintifice a studentilor, masteranzilor și doctoranzilor (SCSSMD), Chimia - frontiera deschisa spre cunoastere, editia VII, pp. 6, Iasi, Romania, Acta Chimica Iasi, 24 Iunie, 24(1), pp. 66, 2016.
34. Rusu, A.M., Matei, M., Mahu, E., Ababei, G.I., Cucu, D., Smadici, R.M., Badragan, L.O., Aonigioaiei, C., Bivol (Augustin), G., Cretu, A.F., Damaschin, R.P., Olariu, R.I., Arsene, C., On how the lack of experience in hplc measurements of aspirin, a selected medicine, can bring you into the trap of elaborating erroneously conclusion, pp. 8, Sesiunea de comunicari stiintifice a studentilor, masteranzilor și doctoranzilor (SCSSMD), Chimia - frontiera deschisa spre cunoastere, editia VII, pp. 8, Iasi, Romania, 24 Iunie, Acta Chimica Iasi, 24(1), pp. 67, 2016.

35. Marin, S.L., Bejan, I., Arsene, C., Olariu, R.I., FT-IR kinetic study of the gas-phase reaction of 2,6-dimethylphenol with OH radicals, Sesiunea de comunicari stiintifice a studentilor, masteranzilor și doctoranzilor (SCSSMD), Chimia - frontiera deschisa spre cunoastere, editia VII, pp. 10, Iasi, Romania, 24 Iunie, Acta Chimica Iasi, 24(1), pp. 68, 2016.
36. Galon (Negru), G.A., Olariu, R.I., Arsene, C., Trace Water Soluble Ions in Fine Atmospheric Particles from Iasi, North-Eastern Romania, in Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences, IC-ANMBES 2016, Florescu, M., Raicu, V., LeGac, S., Turcu, I., Maerty, J.L., Eds., Transilvania University Press, ISSN 2360-3461, pp. 116, 2016.
37. Mardare (Balusescu), G., Olariu, R.I., Arsene, C., Gas Chromatography/Mass Spectrometry (GC/MS) as Challenging Problems Solving Microanalytical Tools, in Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences, IC-ANMBES 2016, Florescu, M., Raicu, V., LeGac, S., Turcu, I., Maerty, J.L., Eds., Transilvania University Press, ISSN 2360-3461, pp. 121, 2016.
38. Galon (Negru), G.A., Olariu, R.I., Arsene, C., Atmospheric behavior and size distribution of water soluble acetate, formate and oxalate ions in urban aerosols from Iasi, Romania, The International Conference CHIMIA 2016 "New Trends in Applied Chemistry", Constanta, Romania, 26-28 May, Ovidius University Press, Constanta, ISSN 2360-3941, pp. 34, 2016.
39. Mardare (Balusescu), G., Olariu, R.I., Arsene, C., Methoxy phenols and other structural constituents in *Datura innoxia* seeds. Mechanistic approaches, The International Conference CHIMIA 2016 "New Trends in Applied Chemistry", Constanta, Romania, 26-28 May, Ovidius University Press, Constanta, ISSN 2360-3941, pp. 35, 2016.
40. Galon (Negru), G.A., Olariu, R.I., Arsene, C., Particulate matter and gaseous pollutants variability in Iasi urban area, north-eastern Romania, 12<sup>th</sup> International Conference on Colloid and Surface-Chemistry, ICCSC-2016, Iasi, Romania, 16-18 May, pp. 53, 2016.
41. Mardare (Balusescu), G., Olariu, R.I., Arsene, C., Sterols in *Datura innoxia* as potential key source specific tracers for organic components in ambient atmospheric aerosol particles, 12<sup>th</sup> International Conference on Colloid and Surface-Chemistry, ICCSC-2016, Iasi, Romania, 16-18 May, pp. 68, 2016.
42. Galon (Negru), G.A., Olariu, R.I., Arsene, C., Mass concentrations and chemical composition of size resolved atmospheric aerosols in the north-eastern Romania, Iasi region, Young Researchers' International Conference on Chemistry and Chemical Engineering (YRICCCE I), Cluj-Napoca, Romania, 12-14 May, pp. 35, 2016.
43. Mardare (Balusescu), G., Olariu, R.I., Arsene, C., Gas chromatography-mass spectrometry analysis of a lignin marker and an indirect contributor to secondary organic aerosols in the atmosphere: p-vinylguaiacol in *Datura innoxia*, Young Researchers' International Conference on Chemistry and Chemical Engineering (YRICCCE I), Cluj-Napoca, Romania, 12-14 May, pp. 33, 2016.
44. Marin, S.L., Galon (Negru), A.G., Mardare (Balusescu), G., Bejan, I., Olariu, R.I., Arsene, C., Gas-phase kinetic study of OH radical reactions with mesitylene in the newly designed ESCQ-UAIC chamber, Young Researchers' International Conference on Chemistry and Chemical Engineering (YRICCCE I), Cluj-Napoca, Romania, 12-14 May, pp. 34, 2016.
45. Pindaru, D.M., Tanase, C., Arsene, C., Olariu, R.I., Impact of the atmospheric nutrients on the frequency of lichenised fungi in urban areas, Scientific Symposium In situ and Ex situ Plant Diversity Conservation, ISBN 978-973-640-677-5, A.I.I. Cuza University of Iasi, pp. 106, 2011.
46. Pindaru, D.M., Tanase, C., Arsene, C., Olariu, R.I., Xanthoria Parietina and Phaeophyscia Orbicularis as lichenised fungi used in air quality biomonitoring of Iasi region, National Conference of Doctoral Schools, A.I.I. Cuza University of Iasi, ISBN 978-973-0-11612-0, A.I.I. Cuza University of Iasi, pp. 11, 2011.
47. Pindaru, D.M., Iftime, M.C., Tanase, C., Arsene, C., Olariu, R.I., Variabilitatea unor parametri chimici din ciupercile lichenizate Xanthoria Parietina and Phaeophyscia Orbicularis colectate din zona urbană Iasi, The Days of the A.I.I. Cuza University of Iasi, pp. 7, 2011.
48. Cernat RI, Mihaescu T, Mocanu RD, Olariu RI, Arsene C. Studii privind determinarea unor elemente esențiale în probe biologice (păr, piese, spută) provenite de la indivizi în diferite stări clinice. INSPIR. Conferința Națională de Pneumologie, Iași, România, 2010.
49. Cernat, R.I., Mihaescu, T., Mocanu, R.D., Olariu, R.I., Arsene, C., Comportamentul fierului, feritinei și transferinei serice la adulții tratați pentru tuberculoza pulmonară activă, Al 21-lea Congres al Societății Române de Pneumologie, Plamanul, parte a unui întreg, Bucharest, Romania, www.congrespneumo2010.com, June 2010.

50. Bertescu, M., Humelnicu, D., Mantu, D., Humelnicu, I., Arsene C., Olariu, R.I., pH influence on the extraction in solid phase on the Th(IV) ions onto POMs sorbent type, 14th International Conference on Physical chemistry, ROMPHYSICHEM-14, pp. 170, June, Bucharest, Romania, 2010.
51. Gherasim, C.V., Bourceanu, G., Olariu, R.I., Arsene, C., Selective separation of lead (II) ions using a PVC-based polymer inclusion membrane, International Conference on Fishery and Aquaculture, A view point upon the sustainable management of the water resources in the Balkan area, Marine, fresh water and soil pollution – public health protection section, pp. 10, Galati, Romania, May, 2010.
52. Bertescu, D., Humelnicu, D., Mantu, I., Humelnicu, C., Arsene, R.I., Olariu, R.I., Studies on feed solutions pH on the solid-phase extraction of Th<sup>4+</sup> on (iso)polyoxometalates sorbents. International Conference on Physical Chemistry, Bucharest, Romania, June, 2010.
53. Arsene, C., Duncianu, M., Olariu, R.I., Chemical composition of tropospheric aerosols in Iasi, north-eastern Romania, The XXXI National Conference on Chemistry, Calimanesti-Valcea, Romania, 2010
54. Pindaru, D., Tanase, C., Barsan, C., Olariu, R.I., Arsene, C., Atmospheric organic nitrogen deposition fluxes from the fine and coarse particles in Iasi, north-eastern Romania, The XXXI National Conference on Chemistry, Calimanesti-Valcea, Romania, October 2010
55. Marcu, M., Olariu, R.I., Arsene, C., Speciation and temporal variability of iron in wet and dry deposition in Iasi, north-eastern Romania, The XXXI National Conference on Chemistry, Calimanesti-Valcea, Romania, 2010
56. C. Arsene, D. Humelnicu, R. I. Olariu, Solid-phase extraction-spectrophotometric determination of the radionuclides in water samples, XXXI-a Conferință Națională de Chimie, Rm. Vâlcea, Romania, ISBN, 978-973-750-194-3, p. 230, octombrie 2010.
57. M. Bertescu, C. Arsene, M. Duncianu, D. Humelnicu, D. Mantu, R.I. Olariu, Solid-phase extraction of ultratrace thorium(IV) in water samples using polioxometalic material modified with silica and its spectrophotometric determination with arsenazo III, XXXI-a Conferință Națională de Chimie, Rm. Vâlcea, Romania, ISBN, 978-973-750-194-3, p. 241, octombrie 2010.
58. Humelnicu, D., Olariu, R.I., Arsene, C., Synthesis and characterisation of some isopolyoxomolybdates with UO<sub>2</sub><sup>2+</sup> and Th<sup>4+</sup> ions, pp. 89-90, in New Trends in Applied Chemistry, Constanta, Romania, Ovidius University Press, ISBN 978-973-614-500-1, 2009.
59. Romeo-Iulian Olariu, Marius Duncianu, Cecilia Arsene, Klaus Wirtz, Determination of photolysis frequencies for vocs using the euphore chamber facilities, 10th International Balkan workshop on Applied Physics, Constanta, România, 6-8 Iulie 2009.
60. Cristina-Veronica Băeșu, Gelu Bourceanu, Romeo Olariu, Cecilia Arsene, Studii asupra extracției și transportului prin membrane lichide a ionilor Pb (II), The days of „Al.I. Cuza” University of Iasi, Iasi, 2009.
61. Cecilia Arsene, Romeo-Iulian Olariu, Maria Kanakidou, Nikolaos Mihalopoulos, On how sodium and ammonium chloride salts may influence aerosols chemistry, The days of „Al.I. Cuza” University of Iasi, Iasi, 2009.
62. Roberta-Ionela Cernat, Raluca-Delia Mocanu, Romeo-Iulian Olariu, Cecilia Arsene. Rolul metalelor în urme în anemia cronică inflamatorie, The days of „Al.I. Cuza” University of Iasi, Iasi, 2009.
63. Meteorological factors role in hydrocarbons distribution, Cecilia Arsene, Romeo-Iulian Olariu, Aikaterini Bougiatioti, Nikolaos Mihalopoulos, The days of „Al.I. Cuza” University of Iasi, Iasi, 2009.
64. Diana Pîndaru, Mihaela Bertescu, Elena Pâslaru, Bety Burghel, Roxana Diaconu, Laurenția Mahu, Alexandra Oniciuc, Ionuț Onilă, Mihaela Parasca, Adina Pascaru, Elena Părpăriță, Romeo-Iulian Olariu, Cecilia Arsene. Variabilitatea spațială a parametrilor de calitate din apa potabilă. Regiunea de N-E a României (Iași, Vaslui, Suceava), The days of „Al.I. Cuza” University of Iasi, Iasi, 2009 – poster
65. Bucharest, Romania, September 2008, International ESTROM Conference, Arsene, C., Olariu, R.I., Mihalopoulos, N., Chemical composition of rainwater in the north-eastern part of Romania, Environmental Research and Mitigation of Water Pollution in Romania and in the Lower Danube Region.
66. Calimanesti-Valcea, Romania, Octombrie 2008, A XXX- a Conferinta Nationala de Chimie, international contribution, Arsene, C., Olariu, R.I., Theodosi, Ch., Mihalopoulos, N., Trace metals in precipitation in an urban area of Romania, pp. 360,

66. Calimanesti-Valcea, Romania, Octombrie 2008, A XXX- a Conferinta Nationala de Chimie, international contribution, Duncianu, M., Vione, D., Arsene, C., Olariu, R.I., Kinetic study regarding the nitrophenols decay pathways in atmospheric aqueous phase and surface waters, pp. 337.
67. Calimanesti-Valcea, Romania, Octombrie 2008, A XXX- a Conferinta Nationala de Chimie, international contribution, Duncianu, M., Bejan, I. Olariu, R.I., Arsene, C., Barnes, I. Oxidative decay of methyl-nitrophenols in atmospheric reactions, pp. 338.
68. Calimanesti-Valcea, Romania, Octombrie 2008, A XXX- a Conferinta Nationala de Chimie, international contribution, Olariu, R.I., Humelnicu, D., Arsene, C., Synthesis and chemical characterization of new  $\text{UO}_2^{2+}$  and  $\text{Th}^{4+}$  isopolioxomolybdate and isopolioxotungstate derivative complexes, pp. 146.
69. Calimanesti-Valcea, Romania, Octombrie 2008, A XXX- a Conferinta Nationala de Chimie, international contribution, Humelnicu, D., Olariu, R.I., Arsene, C., Synthesis of heteropolyoxometalates with uranyl and thorium ions with possible applications in the decontamination of radioactive liquid wastes, pp. 124.
70. Iasi, 27-28 octombrie 2007, Zilele Universității "Al. I. Cuza", Olariu, R.I., Vione, D., Cucu-Man, S., Duncianu, M. and Arsene, C., A case study of the groundwater quality in the village of Letcani, Iasi, Romania.
71. Iasi, 27-28 octombrie 2007, Zilele Universității "Al. I. Cuza", Cucu-Man. S.M., Buhăceanu R. L., Olariu R. I., Neagu V., Luca C, Adsorbția în condiții dinamice a unor coloranți textili pe copolimeri acrilici funcționalizați cu amine.
72. Iasi, 27-28 octombrie 2007, Zilele Universității "Al. I. Cuza", Tănase Cătălin, Olariu Romeo, Pui Aurel, Cozma Dănuț, Tunsu Cristian, Analiza concentrațiilor metalelor în cadrul circuitului sol-funji.
73. Iasi, 27-28 octombrie 2007, Zilele Universității "Al. I. Cuza", M. Duncianu, I. Bejan, R. Olariu, R. Mocanu, I. Barnes, Kinetic Study Involving Oxidative, Decay of Metyl-Nitrophenols in Atmospheric Reactions.
74. Iasi, 27-28 octombrie 2006, Zilele Universității "Al. I. Cuza", Bunia Ion, Neagu Violeta, Luca Cornelia, Cucu-Man Simona, Olariu Romeo, Dulman Viorica, p4.
75. Călimănești- Căciulata, 4-6 octomber 2006, XXIXth Romanian Chemistry Conference, C. Arsene, R. I. Olariu, E. Rinaldi, B. Ravizzoli, D. Vione, Spatial and temporal variation of groundwater nitrate variation in a rural area in the North-Eastern Romania, p449.
76. Constanta, Romania. 12-14 September 2005, 3RD BLACK SEA BASIN CONFERENCE ON ANALYTICAL CHEMISTRY, Arsene Cecilia,, Romeo-Iulian Olariu, and Nikos Mihalopoulos, ANNUAL WET DEPOSITION OF SULPHATE AND NITRATE IN IASI, ROMANIA, p85.
77. Brasov, Romania, 8-10 September 2005, 2nd INTERNATIONAL CONFERENCE ON TREND IN ENVIRONMENTAL EDUCATION, ENVEDU 2005, R.I. Olariu, C. Arsene, M.M. Reviejo, K. Wirtz, EUROPEAN PHOTOREACTOR - EUPHORE. TECHNICAL DESCRIPTIONS AND FACILITIES, p61.
78. Bucharest – Romania, 22-24 September 2005, THE XIV-TH ROMANIAN INTERNATIONAL CONFERENCE ON CHEMISTRY AND CHEMICAL ENGINEERING, (RICCE XIV), Romeo-Iulian Olariu, M. Filomena Duarte, M. Tereza Fernandez, Jorge Lameiras, M. Lourdes Costa, Paula Rodrigues, M. Teresa Barros, DIFFERENTIATION OF NITROBENZYLAZIDES ISOMERS BY MASS SPECTROMETRY, p25.
79. Iași, România, 28-29 Octombrie 2005, Zilele Universității „Al.I. Cuza” Iași, Cristina-Eliza Brunchi, Gheorghe Mihăilă, Iuliean Asaftei, Romeo Olariu. ZEOLIȚI MODIFICAȚI PRIN SCHIMB IONIC CU APLICAȚII ÎN DESCOMPUNEREA APEI, p10.
80. Cluj Napoca, Romania, October 29-30, 2004, The III National Symposium with International participations: Environment – Research, Protection and Management. ENVIRONMENT & PROGRESS, Romeo Iulian Olariu, Ian Barnes, Bjorn Klotz, Iustianian Bejan, Cecilia Arsene, and Klaus Wirtz, Organic Aerosol Formation During the Atmospheric Degradation of Phenols, p28.
81. Călimănești-Căciulata, România, 2004, la A- XXVIII-a Conferință Națională de Chimie, Romeo-Iulian Olariu, Marius Duncianu, Cecilia Arsene, Klaus Wirtz, Determination of photolysis frequencies for some aromatic aldehydes using the EUPHORE chamber facilities, p345.
82. Iași, 31 octombrie-01 noiembrie, 2003, Sesiunea de Comunicari Stiintifice „Zilele Universității „Al.I. Cuza” Iasi, Olariu, R.; Arsene, C.; Duncianu, M.; Wirtz, K. și Martin Reviejo, M., EUROPEAN PHOTOREactor – EUPHORE, Technical descriptions and facilities, p8.

83. Călimănești-Căciulata, România, 23-25 Octombrie, 2002, la A XXVII - a Conferință Națională de Chimie, Olariu, R.I.; Barnes, I.; Arsene, C.; Becker, K.H.; Mocanu, R.; Wirtz, K. and Martin Reveijo, M., Studies of the atmospheric oxidation of phenol in the EUPHORE chamber, p297.

### **g.3.2) în străinătate:**

#### **prezentare orală**

1. Soroaga, L.V., Amarandei, C., Negru, A.G, Arsene, C., Olariu, R.I., The rare earth elements distribution in lake sediments as an indicator of surface water redox potential and micropollution, 18th International Conference on Chemistry and the Environment - 11-15 Iunie 2023, Venetia, Italia
2. Roman, C., Negru, A.G., Amarandei, C., Arsene, C., Bejan, I.G, Vione, D., Olariu, R.I., Atmospheric sink mechanism of 4-isobutylacetophenone, a toxic intermediate product from ibuprofen decomposition, 18th International Conference on Chemistry and the Environment - 11-15 Iunie 2023, Venetia, Italia
3. Lisbon, Portugal, April 2004, 1<sup>st</sup> Encontro National de Fisica Atomica e Molecular, Romeo-Iulian Olariu, M. Lourdes Costa, Antonio Dias, M. Teresa Barros, Paula Rodrigues, J. S. Ogden, and John M. Dyke, Thermal decomposition of Aromatic Azides Monitored by UV-PES, p19.
4. Como, Italia, 5-7 octombrie 2001, Oxygenated Organics in the Atmosphere- Sources, Sinks and Atmospheric Impact, Olariu, R.I.; Barnes, I.; Becker, K.H., Laboratory Studies on OH and NO<sub>3</sub> Reactions with Hydroxylated Monocyclic Aromatic Hydrocarbons: Gas-Phase Kinetics and Reaction Products in Air with and without NO<sub>x</sub>., p5.

#### **postere:**

5. Roman, C., Arsene, C., Olariu, R.I., Bejan, I.G., Gas phase kinetic study for a series of methylated furans with chlorine atoms in atmospheric conditions, The 11th International Conference on Chemical Kinetics, Orleans, France, Book of Abstracts, pp. 150, 23-27 June, 2019. <https://icck2019.sciencesconf.org/>
6. Olariu, R.I., Arsene, C., Bejan, I.G., Roman, C., Rusu, A.M., Galon (Negru), A.G., Secondary organic aerosols formation from the gas phase oh radical reaction with catechol under nox conditions, European Aerosol Conference, Gothenburg, Sweden, pp. 117, 25-30 August, 2019. <https://eac2019.se/>
7. Roman, C., Arsene, C., Bejan, I.G., Olariu, R.I., Temperature dependence kinetic studies by using the newly thermostated ESC-Q-UAIC chamber, The 25<sup>th</sup> International Symposium on Gas Kinetics and Related Phenomena, pp. 167, Lille, Franța, 22- 26 Iulie 2018. 25<sup>th</sup> International Symposium on Gas Kinetics and Related Phenomena Lille-France, from 22<sup>nd</sup> to 26<sup>th</sup> July 2018.
8. R.I. Olariu, S. L. Marin, C. Roman, I.G. Bejan. C. Arsene, Gas-Phase Kinetic Study of OH Radical Reactions with Selected Alkylaromatic Compounds, Atmospheric Chemical and Biological Processes: Interactions and Impacts (ATMOCHEMBIO), Clermont-Ferrand, FRANCE, 19-21 June 2017.
9. I. Bejan, R.I. Olariu, C. Arsene, J.C. Wenger, I. Barnes, P. Wiesen, Investigation on the gas-phase chlorine-atom initiated oxidation of 1,4-benzoquinones and 1,2-dihydroxybenzenes, Atmospheric Chemical and Biological Processes: Interactions and Impacts (ATMOCHEMBIO), Clermont-Ferrand, FRANCE, 19-21 June 2017.
10. Claudiu Roman, Cecilia Arsene, Iustinian Bejan, Romeo-Iulian Olariu, Validation studies on newly developed ESC-Q-UAIC photoreactor for gas-phase atmospheric chemistry, Voltaire 2017 Summer School organized by ICARE, Orléans – FRANCE, 2- 8 July 2017 (<http://www.lestudium-ias.com/fr/event/voltaire-atmospheric-chemistry-summer-school-fundamentals-atmospheric-chemistry>)
11. Romeo-Iulian OLARIU, Cecilia ARSENE – CERNESIM Environmental Research Center, UAIC, The Role of Environmental Simulation Chambers to the Study of Atmospheric Pollutants Evolution, 1st SCIENVIR International Conference, "Scientific Convergence and Interdisciplinarity in EU Environmental Research June 15th-17th, 2017, Iași, Romania.
12. Cecilia ARSENE, Romeo-Iulian OLARIU, Chemistry, the driving force of our every day's life... from fun and danger to scientific challenges, 1st SCIENVIR International Conference, "Scientific Convergence and Interdisciplinarity in EU Environmental Research June 15th-17th, 2017, Iași, Romania.
13. Romeo-Iulian OLARIU, Cecilia ARSENE – CERNESIM Environmental Research Center, UAIC, Seminar: METHodologies in Environmentally focused socioeconomic, Research (METER), 1st SCIENVIR International Conference, "Scientific Convergence and Interdisciplinarity in EU Environmental Research June 15th-17th, 2017, Iași, Romania.

14. Romeo Iulian Olariu, Claudiu Roman, Iustinian Gabriel Bejan, Cecilia Arsene, ESC-Q-UAIC Chamber, a Proper Analytical Tool for the Estimation, of Infrared Absorption Cross Sections for Selected Volatile Organic, Compounds in the Gas Phase, 20th Romanian International Conference on Chemistry and Chemical Engineering, Poiana Brasov, ROMANIA - September 6-9, 2017.
15. Mihaela Petrea-Ioneasa, Iustinian Gabriel Bejan, Romeo-Iulian Olariu, Cecilia Arsene, Gas-Phase Kinetic Study of OH Radical Reactions with Selected, Saturated Ketones, 20th Romanian International Conference on Chemistry and Chemical Engineering, Poiana Brasov, ROMANIA - September 6-9, 2017.
16. Laurentiu-Valentin Soroaga, Romeo-Iulian Olariu, Cecilia Arsene, Catalin Borcia, Quantitative analysis of rare earth elements from secondary sources: a comparison of laser ablation inductively coupled plasma-mass spectrometry and solution inductively coupled plasma-mass spectrometry, International Conference SGEM Vienna Green, AUSTRIA, 27 - 30 November, 2017 (<https://www.sgemviennagreen.org/index.php/sgemviennagreen-deadlines/conference-programme>).
17. Olariu, R.I., Arsene, C., Soroaga, L.V., Pintilei, M., Nica, V., Borcia, C., Chemical properties of available materials for the recovery of rare earth elements, 3<sup>rd</sup> International Conference on Computational and Experimental Science and Engineering (ICCESN-2016), pp. 287, Antalya, Turkey, 19-24 October 2016.
18. Bejan, I., Duncianu, M., Arsene, C., Olariu, R.I., Kinetic study of the gas-phase reactions of chlorine atoms with 2-chlorophenol, 2-nitrophenol and ortho-, meta- and para-cresol, 24<sup>th</sup> International Symposium on Gas Kinetics and Related Phenomena, York, UK, 17<sup>th</sup>-21<sup>st</sup> July, P021, 2016.
19. Bejan, I., Marin, S.L., Duncianu, M., Arsene, C., Olariu, R.I., Validation of a newly designed simulation chamber (ESCQ-UAIC) using gas phase investigations on aromatic compounds, 24<sup>th</sup> International Symposium on Gas Kinetics and Related Phenomena, York, UK, 17<sup>th</sup>-21<sup>st</sup> July, P023, 2016.
20. Arsene, C., Coman (Babusanu), A.C., Negru (Galon), G., Mardare (Balusescu), G., Babusanu(Coman), A., Olariu, R.I., About ultrasound assisted extraction and its suitability for studying physico-chemical processes in various complex matrices, Sample Treatment 2016, Proceedings Book, ISBN 978-989-99639-2-4, Lisbon, Portugal, pp. 79-80, 2016.
21. Duncianu, M., Riffault, V., Olariu, R.I., Arsene, C., Tomas, A., Coddeville, P., Coefficients de vitesse et produits en phase gazeuse obtenus dans les réactions d'ozonolyse d'une série de pentènes, Premier Colloque Francophone sur les Polluants Organiques Générés par l'Agriculture et les Transports, Agadir, Morocco, 24-27 Octobre 2011.
22. Pindaru D., Tanase, C., Olariu, R.I., Arsene, C., Atmospheric deposition of organic and inorganic nitrogen in the north-eastern Romania, 2010 International Aerosol Conference, P2K19, pp. 80, Helsinki, Finland, 2010.
23. Olariu, R.I., Bejan, I., Barnes, I., Becker, K.H., Arsene, C., Evaluation of phenols-SOA formation mechanism with respect to chamber type, 2010 International Aerosol Conference, P3W4, pp. 159, Helsinki, Finland, 2010.
24. Bertescu, M., Humelnicu, D., Mantu, D., Burghiele, B.D., Arsene, C., Olariu, R.I., Solid phase extraction-spectrophotometric determination of thorium (IV) in water samples, 2nd Terrestrial Radioisotopes in Environment International Conference on Environment Protection, Veszprem, Hungary, May 2010.
25. Olariu, R.I., Arsene, C., Humelnicu, D., Duncianu, M., Newly synthesized stationary phase used on method development for  $\alpha$ - and  $\beta$ -emitters measurements in environmental samples, pp. 27, 9th Csaba Horváth Medal Award Symposium, Hartford, Connecticut, USA, 2009.
26. European Aerosol Conference (EAC 2008), Thessaloniki, Greece, August 2008, Arsene, C., Olariu, R.I., Kanakidou, M., Mihalopoulos, N., Atmospheric aerosol characterisation at Iasi, northeastern Romania. First results, T06A206P.
27. Sunny Beach, Bulgaria 19-23 septembrie 2007, 4th Black Sea Basin Conference on Analytical Chemistry, Cucu-Man S., Simion C., Olariu R.I., Luca C. Dynamic adsorption of textile dye Acid Green 9 by acrylic copolymers functionalized with amines in fixed-bed system.
28. Leeds, UK September 2007, Bejan, I. Barnes, M. Duncianu, R. Olariu, Sh. Zhou, P. Wiesen and Th. Benter, Photolysis and OH Radical Kinetics of Methyl-2-nitrophenols, The Royal Society of Chemistry Gas Kinetics Discussion Group.
29. Washington DC- USA, June 3-8, 2006, Workshop on Agricultural Air Quality Cecilia Arsene, Romeo-Iulian Olariu, Kalliopi Violaki, Nikolaos Mihalopoulos, Total Nitrogen Deposition on Land in the Northeastern part of Romania, p 464.

30. Vienna, Austria, April 2006. EUROPEAN GEOPHYSICAL SOCIETY, I. Bejan, I. Barnes, R. Olariu, M. Duncianu, Sh. Zhou, K. H. Becker, Secondary organic aerosol formation during the gas phase photolysis of nitrophenols, vol 8, 07497.
31. Vienna, Austria, April 2005. EUROPEAN GEOPHYSICAL SOCIETY, I. Bejan, I. Barnes, R. Olariu, K. H. Becker, R. Mocanu, New results on the atmospheric chemistry of oxygenated aromatic compounds, vol 7 06143.
32. Zakopane, Poland, October 2004, NATO ARW meeting, Romeo-Iulian Olariu, Marius Duncianu, Cecilia Arsene, Klaus Wirtz, Determination of Photolysis Frequencies for Small Carbonyl Compounds using the EUPHORE Chamber facilities, p19.
33. Bristol, England, July 2004, 18 th International Symposium on Gas Kinetics, Iustinian Bejan, Ian Barnes, Romeo Olariu, Raluca Mocanu, Kinetic Investigations of the Gas-Phase Reactions of the OH Radical with a Series of Nitroaromatic Compounds. PB30.
34. Lisbon, Portugal, May 2004, FAMA 2004, 1st Encontro Nacional de Fisica Atomica e Molecular-Romeo-Iulian Olariu, M. Filomena Durate, M. Tereza Fernandez, Jorge Lameiras, M. Lourdes Costa, Paula Rodrigues, and M. Teresa Barros, Differentiation of Methylbenzylazides by Mass Spectrometry, p20
35. Nice, France, April 2004, EUROPEAN GEOPHYSICAL SOCIETY, R.I. Olariu, Al. Tomas, I. Barnes, I. Bejan, C. Arsene, K. Wirtz, Organic aerosol formation during the atmospheric degradation of 1,2-dihydroxibenzene. Geophysical Research Abstracts, Vol. 6, 07103, 2004.
36. Coimbra, Portugal, April 2004. XIX, Encontro Nacional Da Sociedade Portuguesa De Quimica Romeo-Iulian Olariu, M. Filomena Duarte, M. Tereza Fernandez, Jorge Lameiras, M. Lourdes Costa, Paula Rodrigues, M. Teresa Barros, Differentiation of Methylbenzylazides isomers by mass spectrometry, p108.
37. Paris, France, 1-9 September 2002, EC/EUROTAC-2 Joint Workshop, EC Cluster "Chemical Mechanism Development", Bejan, I.; Olariu, R.I.; Barnes, I.; Benter, Th. and Wirtz, K., FT-IR Investigation of the Gas-Phase Reaction of the NO<sub>3</sub> Radical with a Series of Bezendiol Compounds.
38. Nice, France, April 2003, EUROPEAN GEOPHYSICAL SOCIETY, XXVIII; Olariu, R. I.; Barnes, I.; Bejan, I.; Arsene, C.; Becker, K. H. and Wirtz, K., Secondary Organic Aerosol Formation from the Atmospheric Oxidation of Phenols. News Letter, European Geophysical Society, 77.
39. Essen, Germany, 25-28 August 2002, 17th International Symposium on Gas Kinetics, Olariu, R.I.; Barnes, I.; Bejan, I.; Becker, K.H. and Wirtz, K., Rate Constants for the Gase-Phase Reaction of the NO<sub>3</sub> Radicals with a Series of Bezendiol Compounds.
40. Garmiche, Germany, 11-13 March 2002, contribution to CMD-GPP, EUROTAC-2, Tomas, A.; Olariu, R.I.; Barnes, I.; Bejan, I.; Geiger, H. and Mocanu, R., Atmospheric Chemistry of Benzenediols. Reaction with O<sub>3</sub>.
41. Torino, Italy, 17-20 September 2001, A Changing Atmosphere, 8th European Symposium on the Physico-Chemical Behaviour of Atmospheric Pollutants, Olariu, R.I.; Barnes, I.; Becker, K.H.; Klotz, B.; FT-IR Product Study on the Gas-Phase Reaction of NO<sub>3</sub> Radical with Phenolic Compounds.
42. Orlando, Florida, USA, 24-28 June 2001, "Atmospheric Chemistry of the Aromatic Hydrocarbon Oxidation Products, Phenol, o-, m- and p-Cresol: Product Identification and Aerosol Formation", Barnes, I.; Olariu, R.I.; Klotz, B. and Becker, K.H, p 205.
43. Lausanne, Switzerland, 11-13 September 2000, EC/EUROTAC-2 JOINT WORKSHOP, Olariu, R.I.; Barnes, I.; Becker, K.H.; Klotz, B. and Mocanu, R., FT-IR Product Study of the OH-Radical Initiated Photo-oxidation of Phenol, o-, m-, and p-Cresol,
44. Cambridge, England, 23-27 July 2000, 16th International Symposium on Gas Kinetics, Olariu, R.I.; Barnes, I.; Klotz B. and Becker, K.H., Rate Coefficients for the Gas-Phase Reactions of the Hydroxyl Radical with Catechol, 3-Methylcatechol, 4-Methylcatechol, p-Benzoquinone and Methyl-1,4-benzoquinone, pb25
45. Nice, France, 25-29 April 2000, EUROPEAN GEOPHYSICAL SOCIETY, XXV General Assembly, Millennium Conference on Earth, Planetary & Solar System Sciences Olariu R.I.; Barnes I.; Klotz B. and Becker K.H., Rate Coefficients for the Gas-phase Reactions of the Hydroxyl Radical with Catechols and Benzoquinone. News Letter, European Geophysical Society, 74.
46. Garmiche, Germany, March 2000 a contribution to CMD-GPP, (EUROTAC-2), Olariu, R.I.; Barnes, I.; Geiger, H. and Becker, K.H., Kinetic Study of the Gase Phase Reactions of the OH Radical with Dihydroxybenzene and Benzoquinones.