

# **CURRICULUM VITAE**

## **INFORMAȚII PERSONALE**

Nume și prenume

**OLARIU ROMEO-IULIAN**

Adresă

Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Chimie  
Departamentul de Chimie, Laborator de Chimie Analitică  
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Naționalitate

Română

Locul și data nașterii

**RUPEA, jud. BRAȘOV, 10 Iulie 1971**

Naționalitate

**Română**

## **EXPERIENȚA PROFESIONALĂ**

### **ACTIVITATE DE EVALUARE ȘI EXPERTIZĂ**

Folosirea tehnicilor instrumentale tip FT-IR, Raman, VCD, AAS, UV-vis, Polarografie, Voltametrie, Amperometrie, Conductometrie Cromatografie ionică, Cromatografie de gaze, cromatografie de lichide simple sau cuplate cu spectrometre de masă, 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 compușilor de tipul monoxizilor de azot, dioxidului de sulf, ozonului, umiditate și a instrumentelor de contorizare și urmărire a distribuției numărului, suprafeței și volumului particulelor de aerosoli.

Specialist pentru sisteme de management al laboratoarelor de încercări și etalonări, conform standardului european EN ISO/IEC 17025:2005 (Nr. de înregistrare al certificatului TRRO AK-33-2010, eliberat de TUV Rheinland Romania SRL)

Auditor intern pentru laboratoarele de încercări și etalonări conform standardelor ISO 17025:2005 și ISO 9011:2002 (Nr. de înregistrare al certificatului TAR-AK/69/02/2010, eliberat de TUV Austria Romania).

### **DOMENII DE COMPETENȚĂ**

Chimie, Chimie analitică calitativă și cantitativă, Analiză Instrumentală, Chimia mediului

### **ACTIVITATEA ȘTIINȚIFICĂ**

(vezi ANEXE)

### **CĂRȚI / ARTICOLE PUBLICATE:**

EXPERIENȚĂ DE LUCRU ÎN  
CERCETARE ȘI INSTRUIRE

- **Cărți**, cursuri universitare și manuale de lucrări practice: **5**
- **articole științifice** publicate în reviste de specialitate: 70, din care: **30** cu **ISI** in reviste din **străinătate**, **20** cu **ISI** in reviste din **țară**, 20 in reviste non ISI din țara și din străinătate.
- **participări** la manifestări științifice 63, din care în străinătate .24

**Citări** lucrări indexate/recenzate în baze de date internaționale: **239**; în SCOPUS, CAPLUS and MEDLINE, de Institute for Scientific Information (ISI), Chemical Abstracts, Current Contents etc. **Indice Hirsh = 8**

**COORDONATOR ȘTIINȚIFIC:** lucrări de licență (16), lucrări de disertație (9.)

**REFERENT ȘTIINȚIFIC:** 1 (teza de doctorat); 20 (referate și examene în programului de pregătire individuală la doctorat), 1 la Anal. St. ale Univ. Al.I.Cuza Iasi Seria Geologie (din 2008), 15 la articole publicate în Journal of Photochemistry and Photobiology A, Chemosphere, Science of the Total Environment, Environmental Chemistry Letters, Atmospheric Chemistry and Physics, Environmental Chemistry.

**DIRECTOR/RESPONSABIL GRANTURI DE CERCETARE/DEZVOLTARE:** cu finanțare internă: 2.; cu finanțare externă: **2**

**COLABORATOR ÎN GRANTURI DE CERCETARE:** cu finanțare internă: **4** cu finanțare externă: **6**

**2007**, conferențiar universitar, prin concurs (Ordinul Ministrului Educației și Cercetării nr. 1013/15.05.2007), la Universitatea „Alexandru Ioan Cuza” din Iași, Facultatea de Chimie;

**2003 – 2007: lector universitar**, prin concurs, la Universitatea „Alexandru Ioan Cuza” din Iași, Facultatea de Chimie;

**1999 – 2003: asistent universitar**, prin concurs, la Universitatea „Alexandru Ioan Cuza” din Iași, Facultatea de Chimie;

**1996 – 1999: preparator universitar**, prin concurs, la Universitatea „Alexandru Ioan Cuza” din Iași, Facultatea de Chimie;

SPECIALIZĂRI  
POSTUNIVERSITARE

**2003 – 2004** (14 luni, 01.07.2003-31.08.2014), stagiul 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

EDUCAȚIE

**1998 – 2001** (48 luni, martie 1999 – martie 2001), bursa de cercetare **doctorat** la Bergische Universität, Gesamthochschule Wuppertal, Germania

14.12.2000 susținerea tezei de doctorat în Chimie, Specialitatea Chimia atmosferei, la la Bergische Universität, Gesamthochschule Wuppertal,

Germania.

10.1995 – 06.1996, Diplomă de Studii Aprofundate, Facultatea de Chimie, Universitatea "Al I Cuza" Iasi,

10.1990 – 06.1995 Diploma de licență în Chimie-fizică, Facultatea de Chimie Universitatea "Al. I. Cuza" Iași,

09.1985-06.1989, Diplomă de Bacalaureat, Liceul „Științe ale Naturii” Galați.

09.1977-06.1985, Școala generală cu clasele I-VIII nr. 40, Galați.

#### STAGII DE PREGĂTIRE ȘI MOBILITĂȚI

- 11.07/ 10.08. 2011, profesor invitat la Departamentul de Chimie și Mediu de la Ecole des Mines din Douai, Franța,

- 27.06/ 27.07. 2010, profesor invitat la Departamentul de Chimie și Mediu de la Ecole des Mines din Douai, Franța,

- 17.07/ 26.07. 2007 la Universitatea din Torino, Facultatea de Chimie, Departamentul de Chimie Analitică, prin 15<sup>th</sup> Italian-Romanian Executive Programme of S&T Co-operation.

- 15.07/ 24.07. 2006 la Universitatea din Torino, Facultatea de Chimie, Departamentul de Chimie Analitică, prin 15<sup>th</sup> Italian-Romanian Executive Programme of S&T Co-operation.

#### MEMBRU ÎN SOCIETĂȚI ȘTIINȚIFICE

**Membru** al Societatii Romane de Chimie (din 2006)

#### CUNOȘTINȚE UTILIZARE COMPUTERE

**Operare bună PC** (Microsoft Office Word; Microsoft Office Power Point; Microsoft Office Excel; Origin, Internet (Explorer, Mozilla, Opera), Chem draw, Isis draw), operare specială aparate (Spectra manager, Opus, WinSpect, Fisons, Varian etc). ș.a.

#### LIMBI STRĂINE CUNOSCUTE

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

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

Iași  
14.12. 2013

### A1) cărți publicate:

1. Cecilia Arsene și Romeo Iulian Olariu, Cercetarea criminalistica a microurmelor, AIT Laboratories, 978-606-8363-09-7x1, 185 pp, 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. Cecilia Arsene, Romeo Iulian Olariu, Sulfur in atmosfera, Editura Tehnica, Stiintifica si Didactica, 198 p., ISBN: 973-8188-87-3, CERMI, Iasi, 2003.
5. Romeo Iulian Olariu, Cecilia Arsene, Degradarea atmosferica a hidrocarburilor aromatice, 101 p., ISBN 973-8490-25-1, Ed. PIM, Iasi, 2002.

### Capitole în cărți

1. 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.

### A2) articole apărute

#### A2.1) în reviste de specialitate cu factor de impact din străinătate

1. 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.
2. 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.
3. 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 polymer, Dyes and Pigments, 95(1), pp. 79-88, 2012.
4. Gherasim Cristina-Veronica; Bourceanu Gelu; Olariu Romeo-Iulian, A novel polymer inclusion membrane applied in chromium (VI) separation from aqueous solutions, Jurnal of Hazardous Materials, 197, 244-253, 2011.
5. 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.
6. 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.
7. 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.
8. Gherasim, C.V.I., 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.

18. F. Innocenti, M. L. Costa, A. A. Dias, M. Goubet, A. Morris, R. I. Olariu, 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.
19. F. Innocenti, L. Zuin, M. L. Costa, A. A. Dias, M. Goubet, A. Morris, R. I. Olariu, 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.
20. Davide Vione, Gianpaolo Falliti, Valter Maurino, Claudio Minero, Ezio Pelizzetti, Mery Malandrino, Roberto Ajassa, Romeo-Julian Olariu and Cecilia Arsene, Sources and Sink of Hydroxyl radicals upon Irradiation of Natural Water Samples, *Environmental Science & Technology*, 40, 3775-3781, 2006.
21. Davide Vione, Valter Maurino, Claudio Minero, Ezio Pelizzetti, Mark A. J. Harrison, Romeo-Julian Olariu and Cecilia Arsene, Photochemical Reactions in the Tropospheric Aqueous Phase and on Particulate Matter. *Chemical Society Reviews*, 35,441-453, 2006.
22. J.P.Santos, M.L. Costa, R.I.Olariu, F.Parente, Theoretical study of the molecular properties of benzyle oxide, 2-, 3-, 4-methylbenzyl azide, *The European Physical Journal D*, DOI: 10.1140/epjd/e2006-00117-0.
23. Mark A. J. Harrison, Silvia Barra, Daniele Borghesi, Davide Vione, Cecilia Arsene, Romeo-Julian Olariu, Nitrated phenols in the atmosphere: a review. *Atmospheric Environment*, 39, 231-248, 2005.
24. R.I. Olariu; I. Bejan, I. Barnes, B. Klotz, K.H. Becker, K. Wirtz, Rate Coefficient for the Gas-Phase Reaction of NO<sub>3</sub> Radicals with Selected Dihydroxybenzene. *International Journal of Chemical Kinetics*, 36, 577-583, 2004.
25. 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.
26. 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.
27. 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.; Thürmer, 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.
28. 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.; Loeschner, 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.
29. 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.
30. 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.

#### A2.2) în reviste de specialitate cu factor de impact din țară

31. 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.
32. 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.
33. Ioana Adriana Stefanescu, Lucian Gavrilă, Raluca Delia Mocanu, Romeo-Julian Olariu, Cecilia Arsene, Bioremediation Perspective of Bacillus Megaterium Towards Heavy Metals in Environments Enriched with Phosphogypsum, *Revista de Chimie*, 62 (2), 245-249, 2011.
34. Roberta Ionela Cernat, Raluca Delia Mocanu, Elena Popa, Ion Sandu, Romeo-Julian Olariu, Cecilia Arsene, Investigation of Chemical Parameters in Biological Systems, *Revista de Chimie*, 61 (10), 1130-1135, 2010.
35. Doina Humelnicu, Cecilia Arsene, Bety Burghel, Mihaela Bertescu, Ionel Humelnicu, Ion Sandu, Dorina Mantu, Romeo-Julian Olariu, Interaction of Actinide Cations with Heteropolyoxotungstate Ions [SiW<sub>11</sub>O<sub>39</sub>]<sup>8-</sup> and [SiW<sub>12</sub>O<sub>40</sub>]<sup>4-</sup>, *Revista de Chimie*, 61 (9), 841-844, 2010.
36. 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.
37. Danut Cozma, Catalin Tănase, Cristian Tunsu, Romeo-Julian 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.
38. Doina Humelnicu, Romeo-Julian 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.
39. Romeo-Julian 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.
40. 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.

41. 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.
42. 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.
43. R.I.Olariu, D. Humelnicu, C. Arsene, I. Sandu, G. Carja, Synthesis and chemical characterization of new derivative complexes from  $UO_2^{2+}$  and  $Th^{4+}$  ions with the (iso)polioxomolybdate and (iso)polioxotungstate clusters *Revista de Chimie*, 59(9), 1052-1056, 2008.
44. 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.
45. 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.
46. 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.
47. Cecilia Arsene, Ian Barnes, Romeo Iulian Olariu and Karl Heinz Becker, Dimethyl sulphide photo-oxidation at various  $NO_2$  concentrations. 1. Product study and mechanistic investigations, *Revue Roumanie de Chimie*, 50, (6), 359-369, 2005.
48. Cecilia Arsene, Romeo Iulian Olariu and Ian Barnes, Dimethyl sulphide photo-oxidation at various  $NO_2$  concentrations. 2. Investigation of particle formation, *Revue Roumanie de Chimie*, 50,(6) 487-492, 2005.
49. Suteu D., Paduraru C., Olariu R.I., Utilizarea materialelor celulozice in depoluarea apelor reziduale, *Revista de Chimie*, 49 (7), 467-469, 1998.
50. 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.

#### **A2.3)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  $NO_3$  radicals in EUPHORE chamber, EUPHORE, 5H REPORT 2002, eds.: Ian Barnes Compiled and Produced by Institute of Physical Chemistry, Bergische Universitat 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.
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#### director de proiect

##### internaționale

1. 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: **10000 EUR**.
2. 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: **17500 EUR**.

#### participant la proiecte naționale

1. **PN-II-ID-PCE-2011-3-0471**, Tema: Evaluarea compusilor organici volatili in troposfera inferioara/superioara - Impactul lor asupra capacitatii de oxidare, producere si depunere a noxelor si particulelor de aerosoli in Romania, Director proiect Conf. dr. Cecilia Arsene director) Valoare totală: 1.050.000 lei.
2. **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). Director proiect: Prof. dr. Raluca Mocanu: Valoare totală: **3.650.000 mii lei**.
3. **CEEX- 2113 /2006**. Tema :Reconstructia ecologica prin procedee de micoremediere a solurilor degradate de activitatile miniere. Director proiect: Prof. dr. Tănase Cătălin. Valoare totală: **1.500 000 RON**.
4. **CEEX-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. Director proiect: Prof. dr. Viorica Dulman. Valoare totală: **1.500 000 RON**.

#### participant la 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. **NATO ESP.EAP.CLG.98258/2007**, Chemical Composition of Atmospheric Aerosols in the North-Eastern Romania. Environmental Security Through Science.
3. Research Training Network, EU project "Laboratory Studies of Reactive Intermediates Relevant to Atmospheric Chemistry and Combustion". **Contract N° HPRN-CT-2000-00006**.
4. Effects of the oXidation of Aromatic Compounds in the Troposphere (EXACT): Contract N°: **EVK4 - CT1999 – 00053**.
5. "Chemical composition of aerosols" joint research project selected for mobility exchange under the 5<sup>th</sup> 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**, Director proiect: lect. dr. Cecilia Arsene.
6. "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 15<sup>th</sup> Italian-Romanian Executive Programme of S&T Co-operation for the period 2006-2008 **No. C18002/09.01.2006**, Director proiect: lect. dr. Cecilia Arsene.

e) Citări (sursa: [http://www.scopus.com/cto2/main.url?stateKey=CTOF\\_449396272&origin=cto](http://www.scopus.com/cto2/main.url?stateKey=CTOF_449396272&origin=cto))

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2. Phenol and nitrophenols in the air and dew waters of Santiago de Chile Rubio, M.A., Lissi, E., Herrera, N., Pérez, V., Fuentes, N. *Chemosphere* 86 (10), pp. 1035-1039, 2012.
3. Secondary organic aerosol formation from the photo-oxidation of benzene Borrás, E., Tortajada-Genaro, L.A. *Atmospheric Environment* 47, pp. 154-163, 2012.
4. Theoretical study of mechanism and kinetics for the addition of hydroxyl radical to phenol Wu, P., Li, J., Li, S., Tao, F.-M. *Science China Chemistry* 55 (2), pp. 270-276, 2012.
5. Theoretical and experimental evidence of the photonitration pathway of phenol and 4-chlorophenol: A mechanistic study of environmental significance Bedini, A., Maurino, V., Minero, C., Vione, D. *Photochemical and Photobiological Sciences* 11 (2), pp. 418-424, 2012.
6. Role of glyoxal in SOA formation from aromatic hydrocarbons: Gas-phase reaction trumps reactive uptake Nakao, S., Liu, Y., Tang, P., Chen, C.-L., Zhang, J., Cocker III, D. *Atmospheric Chemistry and Physics Discussions* 11 (11), pp. 30599-30625, 2011.
7. Near-ultraviolet absorption cross sections of nitrophenols and their potential influence on tropospheric oxidation capacity Chen, J., Wenger, J.C., Venables, D.S. *Journal of Physical Chemistry A* 115 (44), pp. 12235-12242, 2011.
8. A theoretical investigation of gas phase NO<sub>3</sub> initiated nitration of p-cresol Jessen, C.E., Gross, A., Kongsted, J., Jørgensen, S. *2011Chemical Physics* 389 (1-3), pp. 39-46, 2011.
9. Secondary organic aerosol formation from phenolic compounds in the absence of NO<sub>x</sub> Nakao, S., Clark, C., Tang, P., Sato, K., Cocker III, D. *Atmospheric Chemistry and Physics* 11 (20), pp. 10649-10660, 2011.
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