

a) teza de Doctorat:

Romeo-Iulian Olariu, Atmospheric Oxidation of Selected Aromatic Hydrocarbons, Bergische Universität GH-Wuppertal, 2001. ISSN 1436-2198.

b) cărți publicate:

1. Cecilia Arsene and Romeo Iulian Olariu, Understanding atmospheric chemistry of hydrocarbons. An introductory approach, 177 p., ISBN: 978-973-702-657-6, TEHNOPRESS, Iasi, 2009.
2. Cecilia Arsene si Romeo Iulian Olariu, Metode analitico-statistice in investigarea sistemelor chimice, 241 p., ISBN: 978-973-730-606-7, PERFORMANTICA, Iasi, 2009.
3. Cecilia Arsene si Romeo Iulian Olariu, Sulfur in atmosfera, Editura Tehnica, Stiintifica si Didactica, 198 p., ISBN: 973-8188-87-3, CERMI, Iasi, 2003.
4. Romeo Iulian Olariu si Cecilia Arsene, Degradarea atmosferica a hidrocarburilor aromatice, 101 p., ISBN 973-8490-25-1, Ed. PIM, Iasi, 2002.

c) articole apărute în reviste de specialitate de circulație internațională și reviste din țară recunoscute de CNCSIS:

c1) în reviste de specialitate cu factor de impact:

1. M. Duncianu, R.I. Olariu, N. Visez, V. Riffault, A. Tomas, P. Coddeville, Journal of Physical Chemistry A 2012, Article ASAP; DOI 10.1021/jp211480x.
2. 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.
3. 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.
4. Cecilia Arsene, Romeo Iulian Olariu, Pavlos Zampas, 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.
5. 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.
6. 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.
7. 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.
8. Stefan Marius, Hritcu Lucian, Mihasan Marius, Pricop Daniela, Gostin Irina, Olariu Romeo-Iulian, Dunca Simona, Melnic 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.
9. 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.
10. 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.
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. Doina Humelnicu, Cecilia Arsene, Bety Burghel, Mihaela Bertescu, Ionel Humelnicu, Ion Sandu, Dorina Mantu, Romeo-Iulian Olariu, Interaction of Actinide Cations with Heteropolyoxotungstate Ions [SiW11O39]8- and [SiW12O40]4-, Revista de Chimie, 61 (9), 841-844, 2010.
13. 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.
14. 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.
15. Davide Vione, Swapan 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.
16. 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.
17. 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.
18. 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.

19. 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.
20. 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.
21. 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.
22. Vione, D., Rinaldi, E., Minero, C., Maurino, V., Olariu, R.-I., Arsene, C., Studies regarding groundwater quality at rural sites. 2. Photochemical generation of OH and NO₂ radicals upon UV-A irradiation of nitrate-rich groundwater, *Revista de Chimie* 60 (6), 551-554, 2009.
23. R.I.Olariu, D. Humelnicu, C. Arsene, I. Sandu, G. Carja, Synthesis and chemical characterization of new derivative complexes from UO₂²⁺ and Th⁴⁺ ions with the (iso)polioxomolybdate and (iso)polioxotungstate clusters *Revista de Chimie*, 59(9), 1052-1056, 2008.
24. 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.
25. Doina Humelnicu, Romeo Julian 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.
26. 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.
27. Tanase Catalin, Aurel Pui, Olariu Romeo si Cozma Danut-Gabriel, Analysis of heavy metals content in the soil and in the macromycetes species growing on mine waste dumps, *Revista de Chimie* 59(5), 479-485, 2008.
28. Arsene Cecilia, Olariu Romeo Julian, Mihalopoulos Nikolaos, Chemical composition of rainwater in the northeastern Romania, Iasi region (2003-2006), *Atmospheric Environment* 41, 9452 - 9467, 2007.
29. 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.
30. 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(b³Π, 3p) and NO(b³Π, 4p) Rydberg states, *Molecular Physics*, Vol. 105, Nos. 5-7, 771-796, 2007.
31. 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.
32. 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.
33. 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.
34. J.P.Santos, M.L. Costa, R.I.Olariu, F.Parente, Theoretical study of the molecular properties of benzyle axide, 2-, 3-, 4-methylbenzyl azide, *The European Physical Journal D*, DOI: 10.1140/epjd/e2006-00117-0.
35. 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.
36. Cecilia Arsene, Ian Barnes, Romeo Julian Olariu and Karl Heinz Becker, Dimethyl sulphide photo-oxidation at various NO₂ concentrations. 1. Product study and mechanistic investigations, *Revue Roumanie de Chimie*, 50, (6), 359-369, 2005.
37. Cecilia Arsene, Romeo Julian Olariu and Ian Barnes, Dimethyl sulphide photo-oxidation at various NO₂ concentrations. 2. Investigation of particle formation, *Revue Roumanie de Chimie*, 50,(6) 487-492, 2005.
38. R.I. Olariu; I. Bejan, I. Barnes, B. Klotz, K.H. Becker, K. Wirtz, Rate Coefficient for the Gas-Phase Reaction of NO₃ Radicals with Selected Dihydroxybenzene. *International Journal of Chemical Kinetics*, 36, 577-583, 2004.
39. Tomas, A.; Olariu, R.I.; Barnes, I. and Becker, K.H., Kinetics of the Reaction of O₃ with Selected Benzenediols, *International Journal of Chemical Kinetics*, 35 223-230, 2003.
40. 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.
41. 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.; Thüner, 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.
42. 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.
43. 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.

44. 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.
45. Suteu D., Padurarur C., Olariu R.I., Utilizarea materialelor celulozice in depoluarea apelor reziduale, *Revista de Chimie*, 49 (7), 467-469, 1998.
46. 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.

c2) 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 NO₃ radicals in EUPHORE chamber, EUPHORE, 5TH 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 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.

c4) lucrari apărute în țară fără indice de impact, recunoscute de CNCSIS

9. Doina Humelnicu, Romeo Iulian Olariu, Cecilia Arsene, Mihaela Bertescu, Bety Burgele, 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.*
10. Humelnicu D, Olariu R-I, Arsene C, Humelnicu I. New isopolyoxomolybdates derived from heptamolybdate, with UO₂²⁺ and Th⁴⁺ ions. *Ovidius University Annals of Chemistry* 20 (2), 227-230, 2009.
11. Marius Duncianu, Romeo Iulian Olariu, Cecilia Arsene, Raluca Mocanu, Klaus Wirtz, Montserrat Martin Reviejo, Spectroradiometric determination of the photolysis frequency of NO₂ in Euphore chamber, *Anal. St. ale Univ. Al.I.Cuza Iasi, seria Chimie*, 12, 17-24, 2004.
12. 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.*
13. 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.*
14. 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.*

d) studii publicate în volumele unor manifestări științifice internaționale recunoscute, din țară și din străinătate (cu ISSN sau ISBN)

15. Romeo Iulian Olariu, Marius Duncianu, Cecilia Arsene and Klaus Wirtz, Determination of Photolysis Frequencies for Small Carbonyl Compounds using the EUPHORE Chamber Facilities. *Proceedings of the NATO Advances Research Workshop on Environmental Simulation Chambers: Application to Atmospheric Chemical Processes., Nato Science Series: IV: Earth and Environmental Sciences, Vol. 62 Barnes, Ian; Rudzinski, Krzysztof J. (Eds.) 2005, Softcover ISBN: 1-4020-4231-0, p121*
16. Iustinian Bejan, Ian Barnes, Romeo Olariu, Raluca Mocanu, FT-IR study of the kinetic gas-phase reactions of the OH radical with a series of nitroaromatic compounds. *Proceedings of the NATO Advances Research Workshop on Environmental Simulation Chambers: Application to Atmospheric Chemical Processes., Nato Science Series: IV: Earth and Environmental Sciences, Vol. 62 Barnes, Ian; Rudzinski, Krzysztof J. (Eds.) 2005, Softcover ISBN: 1-4020-4231-0, p155*
17. Arsene Cecilia, Nikos Mihalopoulos and Romeo Iulian Olariu, Atmospheric wet deposition Monitoring in Iasi, Romania. *Proceedings of the NATO Advances Research Workshop on Environmental Simulation Chambers: Application to Atmospheric Chemical Processes., Nato Science Series: IV: Earth and Environmental Sciences, Vol. 62 Barnes, Ian; Rudzinski, Krzysztof J. (Eds.) 2005, Softcover ISBN: 1-4020-4231-0, p369*

18. 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

**e) proiecte de cercetare-dezvoltare-inovare pe bază de contract/grant
director de proiect**

1. Proiect **POSCCE-A2-02.2.1-2009-4, 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 **32009409 Lei**.
2. Proiect **PN-II-2007 Cod 405**, contractul de finanțare nr. 9 / 28.09.2007; Cercetări privind reținerea unor radionuclizi din mediu pe sorbenți heteropolioxometalați în scopul determinării lor prin cromatografie ionică. Valoare proiect **826717 Lei**.
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: **10000 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: **17500 EUR**.

participant la proiecte naționale

1. **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**.
2. **CEEX- 2113 /2006**. Tema :Reconstrucția ecologică prin procedee de micoremediere a solurilor degradate de activitățile miniere. Director proiect: Prof. dr. Tănase Cătălin. Valoare totală: **1.500 000 RON**.
3. **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 proiect "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**.

participant proiecte bilaterale:

1. "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**, Director proiect: lect. dr. Cecilia Arsene.
2. "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**, Director proiect: lect. dr. Cecilia Arsene.

g) alte lucrări și contribuții științifice

g1) Publicații integrale în proceedinguri internaționale:

1. Olariu, R.I.; Barnes, I.; Bejan, I.; Becker, K.H. and Wirtz, K., Rate Constants for the Gas-Phase Reaction of the NO₃ Radicals with a Series of Bezendiol Compounds., Proceedings from 17th International Symposium on Gas Kinetics, 2002, AP04.
2. Bejan, I.; Olariu, R.I.; Barnes, I.; Benter, Th. and Wirtz, K., FT-IR Investigation of the Gas-Phase Reaction of the NO₃ Radical with a Series of Bezendiol 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.
3. Tomas, A.; Olariu, R.I.; Barnes, I.; Bejan, I.; Geiger, H. and Mocanu, R., Atmospheric Chemistry of Benzenediols. Reaction with O₃ in Proceedings from the EUROTRAC-2 Symposium 2002, Margraf Verlag, Weikersheim 2002.
4. Olariu, R.I.; Barnes, I.; Becker, K.H.; Klotz, B., FT-IR Product Study on the Gas-Phase Reaction of NO₃ 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.
5. 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.
6. 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.

g2) Lucrări susținute la manifestări, simpozioane și congrese:

în țară:

prezentare orală:

1. Rm. Vâlcea, 6-8 octombrie, 2010, C. Arsene, D. Humelnicu, R. I. Olariu, 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.

2. Bucharest, 5 -8 October, 2006, 2nd International Conference on Environmental Research and Assessment, Cecilia Arsene, Romeo-Julian Olariu, Nikos Mihalopoulos, Organic acidity in a wet precipitation study in the northeastern Romania, p1.
3. Iasi, 27-28 octombrie 2007, Zilele Universității "Al. I. Cuza", Olariu Romeo-Julian, Arsene Cecilia, Humelnicu Doina. Development of a new analytical instrument for the rapid analysis of environmental media containing multiple non-gamma emitting radionuclides.
4. 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.
5. 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.
6. Iași, 29-30 octombrie 2004, Sesiunea de Comunicări Științifice „Zilele Universității „Al.I. Cuza” Iași. Marius Duncianu, Romeo Julian Olariu, Klaus Wirtz, Cecilia Arsene și Raluca Mocanu, Determinarea frecvențelor de fotoliză ale unor specii chimice din atmosfera pe baza măsurătorilor spectrale ale fluxului actinic, p7.
7. Iași 31 octombrie-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.
8. 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:

9. M. Bertescu, D. Humelnicu, D. Mantu, B. D. Burgele, C. Arsene, R.I. Olariu, Solid-phase extraction-spectrophotometric determination of thorium (IV) in water samples, 2nd Terrestrial Radioisotopes in the Environmental Conference, Veszprem, Hungary, May 2010.
10. M. Bertescu, D. Humelnicu, D. Mantu, I. Humelnicu, C. Arsene, R.I. Olariu, Studies on feed solutions pH on the solid-phase extraction of Th⁴⁺ on (iso)polyoxometalates sorbents. International Conference on Physical Chemistry, Bucharest, Romania, June, 2010.
11. Humelnicu, M. V. Dinu, E. S. Drăgan., Adsorption behavior of Uranium (VI) and Th (IV) from simulated wastewaters of different type of Chitosan Resins, XXXI-a Conferință Națională de Chimie, Rm. Vâlcea, Romania, ISBN, 978-973-750-194-3, p. 239, octombrie 2010.
12. M. Bertescu, C. Arsene, M. Duncianu, D. Humelnicu, D. Mantu, R.I. Olariu, Solid-phase extraction of ultratrace thorium(IV) in water samples using polyoxometallic 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.
13. Humelnicu, D., Olariu, R.I., Arsene, C., Synthesis and characterisation of some isopolyoxomolybdates with UO₂²⁺ and Th⁴⁺ ions, pp. 89-90, in New Trends in Applied Chemistry, Constanta, Romania, Ovidius University Press, ISBN 978-973-614-500-1, 2009.
14. Romeo-Julian 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.
15. 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.
16. Cecilia Arsene, Romeo-Julian 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.
17. Roberta-Ionela Cernat, Raluca-Delia Mocanu, Romeo-Julian Olariu, Cecilia Arsene. Rolul metalelor în urme în anemia cronică inflamatorie, The days of „Al.I. Cuza” University of Iasi, Iasi, 2009.
18. Meteorological factors role in hydrocarbons distribution, Cecilia Arsene, Romeo-Julian Olariu, Aikaterini Bougiatioti, Nikolaos Mihalopoulos, The days of „Al.I. Cuza” University of Iasi, Iasi, 2009.
19. Diana Pîndaru, Mihaela Bertescu, Elena Pâslaru, Bety Burgele, Roxana Diaconu, Laurenția Mahu, Alexandra Oniciuc, Ionuț Onilă, Mihaela Parasca, Adina Pascaru, Elena Părpăriță, Romeo-Julian 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
20. 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.
21. 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,
22. 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.
23. 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.
24. 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 UO₂²⁺ and Th⁴⁺ isopolyoxomolybdate and isopolyoxotungstate derivative complexes, pp. 146.
25. 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.
26. 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.
27. 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 textilii pe copolimeri acrilici funcționalizați cu amine.
28. 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-fungi.
29. 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.

30. Iasi, 27-28 octombrie 2006, Zilele Universității "Al. I. Cuza", Bunia Ion, Neagu Violeta, Luca Cornelia, Cucu-Man Simona, Olariu Romeo, Dulman Viorica, p4.
31. Călimănești- Căciulata, 4-6 octombrie 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.
32. 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.
33. 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.
34. 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.
35. Iași, România, 28-29 Octombrie 2005, Zilele Universității „Al.I. Cuza” Iași, Cristina-Eliza Brunchi, Gheorghe Mihăilă, Iulian Asaftei, Romeo Olariu. ZEOLIȚI MODIFICAȚI PRIN SCHIMB IONIC CU APLICAȚII ÎN DESCOMPUNEREA APEI, p10.
36. 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.
37. 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.
38. Iași, 31octombrie-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.
39. 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 Revejo, M., Studies of the atmospheric oxidation of phenol in the EUPHORE chamber, p297.

în străinătate:

prezentare orală

1. Lisbon, Portugal, April 2004, 1st Encontro Nacional 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.
2. 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 NO₃ Reactions with Hydroxylated Monocyclic Aromatic Hydrocarbons: Gas-Phase Kinetics and Reaction Products in Air with and without NO_x., p5.

postere:

3. Olariu, R.I., Arsene, C., Humelnicu, D., Duncianu, M., Newly synthesized stationary phase used on method development for α - and β -emitters measurements in environmental samples, pp. 27, 9th Csaba Horváth Medal Award Symposium, Hartford, Connecticut, USA, 2009.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. Bristol, England, July, 2004, 18 th International Symposium on Gas Kinetics, Iustianian 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.
12. Lisbon, Portugal, May 2004, FAMA 2004, 1st Encontro Nacional de Fisica Atomica e Molecular- Romeo-Iulian Olariu, M. Filomena Duarte, M. Tereza Fernandez, Jorge Lameiras, M. Lourdes Costa, Paula Rodrigues, and M. Teresa Barros, Differentiation of Methylbenzylazides by Mass Spectrometry, p20
13. 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.
14. 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.
15. Paris, France, 1-9 September, 2002, EC/EUROTRAC-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 NO₃ Radical with a Series of Benzodiol Compounds.

16. 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.
17. 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 Gas-Phase Reaction of the NO₃ Radicals with a Series of Bezendiol Compounds.
18. Garmiche, Germany, 11-13 March 2002, contribution to CMD-GPP, EUROTRAC-2, Tomas, A.; Olariu, R.I.; Barnes, I.; Bejan, I.; Geiger, H. and Mocanu, R., Atmospheric Chemistry of Benzenediols. Reaction with O₃.
19. 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 NO₃ Radical with Phenolic Compounds.
20. 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.
21. Lausanne, Switzerland, 11-13 September, 2000, EC/EUROTRAC-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.
22. Cambridge, England, 23-27 July, 2000, 16 th 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
23. 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.
24. Garmiche, Germany, March 2000 a contribution to CMD-GPP, (EUROTRAC-2), Olariu, R.I.; Barnes, I.; Geiger, H. and Becker, K.H., Kinetic Study of the Gas Phase Reactions of the OH Radical with Dihydroxybenzene and Benzoquinones.

Citări:

FT-IR study of the ring-retaining products from the reaction of OH radical with phenol, o-, m-, and p-cresol, R.I.Olariu, I. Barnes, K.H.Becker, B. Koltz, R. Mocanu, ATMOSPHERIC ENVIRONMENT, 36, 3685-3697, 2002.

1. Gas-phase oxidation of cresol isomers initiated by OH or NO₃ radicals in the presence of NO₂ Jørgensen, S. International Journal of Chemical Kinetics 44 (3) , pp. 165-178, 2012.
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 lii, 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 NO₃ 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_x Nakao, S., Clark, C., Tang, P., Sato, K., Cocker lii, D. Atmospheric Chemistry and Physics 11 (20) , pp. 10649-10660, 2011.
10. Determination of trace 2,4-dinitrophenol in surface water samples based on hydrophilic molecularly imprinted polymers/nickel fiber electrode Jing, T., Xia, H., Niu, J., Zhou, Y., Dai, Q., Hao, Q., Zhou, Y., Mei, S. Biosensors and Bioelectronics 26 (11) , pp. 4450-4456, 2011.
11. Secondary Organic Aerosol formation from phenolic compounds in the absence of NO_x Nakao, S., Clark, C., Tang, P., Sato, K., Cocker, D. Atmospheric Chemistry and Physics Discussions 11 (1) , pp. 2025-2055, 2011.
12. Iinuma Y, Boge O, Grafe R, et al. Methyl-Nitrocatechols: Atmospheric Tracer Compounds for Biomass Burning Secondary Organic Aerosols, ENVIRONMENTAL SCIENCE & TECHNOLOGY, 44(22), 8453-8459, 2010.
13. Coeur-Tourneur C, Cassez A, Wenger JC., Rate Coefficients for the Gas-Phase Reaction of Hydroxyl Radicals with 2-Methoxyphenol (Guaiacol) and Related Compounds, JOURNAL OF PHYSICAL CHEMISTRY A, 114(43), 11645-11650, 2010.
14. Minero C, Maurino V, Borghesi D, et al., An overview of possible processes able to account for the occurrence of nitro-PAHs in Antarctic particulate matter, MICROCHEMICAL JOURNAL, 96 (2), 213-217, 2010.
15. Zhang YY, Muller L, Winterhalter R, et al., Seasonal cycle and temperature dependence of pinene oxidation products, dicarboxylic acids and nitrophenols in fine and coarse air particulate matter, ATMOSPHERIC CHEMISTRY AND PHYSICS, 10(16), 7859-7873, 2010.
16. Ganranoo L, Mishra SK, Azad AK, et al. Measurement of Nitrophenols in Rain and Air by Two-Dimensional Liquid Chromatography-Chemically Active Liquid Core Waveguide Spectrometry, ANALYTICAL CHEMISTRY, 82(13), 5838-5843, 2010.
17. Sun YL, Zhang Q, Anastasio C, et al., Insights into secondary organic aerosol formed via aqueous-phase reactions of phenolic compounds based on high resolution mass spectrometry, ATMOSPHERIC CHEMISTRY AND PHYSICS 10(10), 4809-4822, 2010.
18. Coeur-Tourneur C, Foulon V, Lareal M., Determination of aerosol yields from 3-methylcatechol and 4-methylcatechol ozonolysis in a simulation chamber, ATMOSPHERIC ENVIRONMENT, 44(6), 852-857, 2010.

19. Monks, P.S., Granier, C., Fuzzi, S., Stohl, A., Williams, M.L., Akimoto, H., Amann, M., et al., Atmospheric composition change - global and regional air quality, *ATMOSPHERIC ENVIRONMENT*, 43 (33), 5268-5350, 2009.
20. Morales-Roque, J., Carrillo-Cárdenas, M., Jayanthi, N., Cruz, J., Pandiyan, T., Theoretical and experimental interpretations of phenol oxidation by the hydroxyl radical, *JOURNAL OF MOLECULAR STRUCTURE: THEOCHEM*, 910 (1-3), 74-79, 2009.
21. Noda, J., Volkamer, R., Molina, M.J., Dealkylation of alkylbenzenes: a significant pathway in the toluene, o-, m-, p-xylene + OH reaction, *JOURNAL OF PHYSICAL CHEMISTRY A*, 113 (35), 9658-9666, 2009.
22. Coeur-Tourneur, C., Tomas, A., Guilloteau, A., Henry, F., Ledoux, F., Visez, N., Riffault, V., Wenger, J.C., Bedjanian, Y., Aerosol formation yields from the reaction of catechol with ozone, *ATMOSPHERIC ENVIRONMENT*, 43 (14), 2360-2365, 2009.
23. Li, W., Wang, J., Zou, L., Zhu, S., Synthesis and characterization of potassium humate-acrylic acid-acrylamide hydrogel, *JOURNAL OF POLYMER RESEARCH*, 15 (6), 435-445, 2008.
24. Zhou, S., Hu, Z.-Y., Yu, J.-Q., Biodegradation of phenol wastewater by *Pseudomonas* sp. immobilized on bamboo-carbon, *JOURNAL OF CHEMICAL ENGINEERING OF CHINESE UNIVERSITIES* 22 (5), 889-894, 2008.
25. Altarawneh, M., Dlugogorski, B.Z., Kennedy, E.M., Mackie, J.C., Quantum chemical and kinetic study of formation of 2-chlorophenoxy radical from 2-chlorophenol: Unimolecular decomposition and bimolecular reactions with H, OH, Cl, and O₂, *JOURNAL OF PHYSICAL CHEMISTRY A*, 112 (16), 3680-3692, 2008.
26. Henry, F., Coeur-Tourneur, C., Ledoux, F., Tomas, A., Menu, D., Secondary organic aerosol formation from the gas phase reaction of hydroxyl radicals with m-, o- and p-cresol, *ATMOSPHERIC ENVIRONMENT*, 42 (13), 3035-3045, 2008.
27. Vione, D., Minero, C., Housari, F., Chiron, S., Photoinduced transformation processes of 2,4-dichlorophenol and 2,6-dichlorophenol on nitrate irradiation, *CHEMOSPHERE*, 69 (10), 1548-1554, 2007.
28. Jagiella, S., Zabel, F., Reaction of phenylperoxy radicals with NO₂ at 298 K, *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, 9 (36), 5036-5051, 2007.
29. Bartolomé, L., Lezamiz, J., Etxebarria, N., Zuloaga, O., Jönsson, J.A., Determination of trace levels of dinitrophenolic compounds by microporous membrane liquid-liquid extraction in environmental water samples, *JOURNAL OF SEPARATION SCIENCE* 30 (13), 2144-2152, 2007.
30. Guo, X.X., Brimblecombe, P., Henry's law constants of phenol and mononitrophenols in water and aqueous sulfuric acid, *CHEMOSPHERE*, 68 (3), 436-444, 2007.
31. Koch, R., Knispel, R., Elend, M., Siese, M., Zetzsch, C., Consecutive reactions of aromatic-OH adducts with NO, NO₂ and O₂: Benzene, naphthalene, toluene, m- And p-xylene, hexamethylbenzene, phenol, m-cresol and aniline, *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 7 (8), 2057-2071, 2007.
32. Bonin, J., Janik, I., Janik, D., Bartels, D.M., Reaction of the hydroxyl radical with phenol in water up to supercritical conditions, *JOURNAL OF PHYSICAL CHEMISTRY A*, 111 (10), 1869-1878, 2007.
33. Raff, J.D., Hites, R.A., Gas-phase reactions of brominated diphenyl ethers with OH radicals, *JOURNAL OF PHYSICAL CHEMISTRY A*, 110 (37), 10783-10792, 2007.
34. Coeur-Tourneur, C., Henry, F., Janquin, M.-A., Brutier, L., Gas-phase reaction of hydroxyl radicals with m-, o- and p-cresol, *INTERNATIONAL JOURNAL OF CHEMICAL KINETICS*, 38 (9), 553-562, 2006.
35. Belloli, R., Bolzacchini, E., Clerici, L., Rindone, B., Sesana, G., Librando, V., Nitrophenols in air and rainwater, *ENVIRONMENTAL ENGINEERING SCIENCE* 23 (2), 405-415, 2006.
36. Priya, M.H., Madras, G., Kinetics of photocatalytic degradation of phenols with multiple substituent groups, *JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A: CHEMISTRY* 179 (3), 256-262, 2006.
37. Falsig, H., Gross, A., Kongsted, J., Osted, A., Sloth, M., Mikkelsen, K.V., Christiansen, O., Uptake of phenol on aerosol particles, *JOURNAL OF PHYSICAL CHEMISTRY A*, 110 (2), 660-670, 2006.
38. Aras, E., Aşık, B., Büyüm, M., Birey, M., EPR spectroscopy of γ -irradiated single crystals of 5-methyle-2-nitrophenol, *RADIATION EFFECTS AND DEFECTS IN SOLIDS*, 161 (1), 69-73, 2006.
39. Borghesi, D., Vione, D., Maurino, V., Minero, C., Transformations of benzene photoinduced by nitrate salts and iron oxide, *JOURNAL OF ATMOSPHERIC CHEMISTRY*, 52 (3), 259-281, 2005.
40. Vione D, Maurino V, Minero C, et al., Aqueous atmospheric chemistry: Formation of 2,4-dinitrophenol upon nitration of 2-nitrophenol and 4-nitrophenol in solution. *ENVIRONMENTAL SCIENCE & TECHNOLOGY*, 39 (20), 7921-7931, 2005.
41. Trentmann J, Yokelson RJ, Hobbs PV, et al., An analysis of the chemical processes in the smoke plume from a savanna fire, *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, 110 (D12): Art. No. D12301, 2005.
42. Bloss C, Wagner V, Bonzanini A, et al., Evaluation of detailed aromatic mechanisms (MCMv3 and MCMv3.1) against environmental chamber data, *ATMOSPHERIC CHEMISTRY AND PHYSICS* 5, 2005.
43. Johnson, D., Jenkin, M.E., Wirtz, K., Martin-Reviejo, M., Simulating the formation of secondary organic aerosol from the photooxidation of aromatic hydrocarbons, *ENVIRONMENTAL CHEMISTRY*, 2 (1), 35-48, 2005.
44. Bloss, C., Wagner, V., Jenkin, M.E., Volkamer, R., Bloss, W.J., Lee, J.D., Heard, D.E.a, Wirtz, K., Martin-Reviejo, M., Rea, G., Wenger, J.C., Pilling, M.J., Development of a detailed chemical mechanism (MCMv3.1) for the atmospheric oxidation of aromatic hydrocarbons, *ATMOSPHERIC CHEMISTRY AND PHYSICS* 5 (3), 641-664, 2005.
45. Wagner V, Jenkin ME, et al., Development of a detailed chemical mechanism (MCMv3.1) for the atmospheric oxidation of aromatic hydrocarbons. *ATMOSPHERIC CHEMISTRY AND PHYSICS* 5: 641-664, 2005.
46. Lu R, Wu J, Turco RP, et al., Naphthalene distributions and human exposure in a Southern California., *ATMOSPHERIC ENVIRONMENT* 39 (3), 489-507, 2005.

Nitrated phenols in the atmosphere. A review, Harrison, M.A.J., Barra, S., Borghesi, D., Vione, D., Arsene, C., Olariu, R.I., ATMOSPHERIC ENVIRONMENT, 39, 231-248, 2005.

47. Development of a liquid chromatographic method based on ultraviolet-visible and electrospray ionization mass spectrometric detection for the identification of nitrocatechols and related tracers in biomass burning atmospheric organic aerosol Kitanovski, Z., Grgić, I., Yasmeen, F., Claeys, M., Čusak, A. *Rapid Communications in Mass Spectrometry* 26 (7) , pp. 793-804, 2012.
48. 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.
49. Selective immobilization of hydroquinone on carbon nanotube modified electrode via phenol electro-oxidation method and its hydrazine electro-catalysis and Escherichia coli antibacterial activity Sundaram, S., Annamalai, S.K. *Electrochimica Acta* 62 , pp. 207-217, 2012..
50. Daytime HONO vertical gradients during SHARP 2009 in Houston, TX Wong, K.W., Tsai, C., Lefer, B., Haman, C., Grossberg, N., Brune, W.H., Ren, X., Stutz, J. *Atmospheric Chemistry and Physics* 12 (2) , pp. 635-652, 2012.
51. Electrochemical oxidation behavior of 2,4-dinitrophenol at hydroxylapatite film-modified glassy carbon electrode and its determination in water samples Yin, H., Zhou, Y., Han, R., Qiu, Y., Ai, S., Zhu, L. *Journal of Solid State Electrochemistry* 16 (1) , pp. 75-82, 2012.
52. Heterogeneous oxidation kinetics of organic biomass burning aerosol surrogates by O₃, NO₂, N₂O₅, and NO₃ Knopf, D.A., Forrester, S.M., Slade, J.H. *Physical Chemistry Chemical Physics* 13 (47) , pp. 21050-21062, 2012.
53. 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.
54. A theoretical investigation of gas phase NO₃ initiated nitration of p-cresol Jessen, C.E., Gross, A., Kongsted, J., Jørgensen, S. *2011Chemical Physics* 389 (1-3) , pp. 39-46, 2011.
55. Simultaneous analysis of chlorophenols, alkylphenols, nitrophenols and cresols in wastewater effluents, using solid phase extraction and further determination by gas chromatography-tandem mass spectrometry Padilla-Sánchez, J.A., Plaza-Bolaños, P., Romero-González, R., Barco-Bonilla, N., Martínez-Vidal, J.L., Garrido-Frenich, A. *Talanta* 85 (5) , pp. 2397-2404, 2011.
56. Organic nitrogen in the atmosphere - Where does it come from? A review of sources and methods Cape, J.N., Cornell, S.E., Jickells, T.D., Nemitz, E. *Atmospheric Research* 102 (1-2) , pp. 30-48, 2011.
57. UVA/Vis-induced nitrous acid formation on polyphenolic films exposed to gaseous NO₂ Sosedova, Y., Rouvière, A., Bartels-Rausch, T., Ammann, H. *Photochemical and Photobiological Sciences* 10 (10) , pp. 1680-1690, 2011.
58. Daytime HONO Vertical Gradients during SHARP 2009 in Houston, TX Wong, K.W., Tsai, C., Lefer, B., Haman, C., Grossberg, N., Brune, W.H., Ren, X., (...), Stutz, J. *Atmospheric Chemistry and Physics Discussions* 11 (8) , pp. 24365-24411, 2011.
59. Heterogeneous atmospheric chemistry, ambient measurements, and model calculations of N₂O₅: A review Chang, W.L., Bhawe, P.V., Brown, S.S., Riemer, N., Stutz, J., Dabdub, D. *Aerosol Science and Technology* 45 (6) , pp. 655-685, 2011
60. Determination of nitrophenols in drinking and river water by differential pulse voltammetry at boron-doped diamond film electrode Musilová, J., Barek, J., Pecková, K. *Electroanalysis* 23 (5) , pp. 1236-1244, 2011.
61. The role of long-lived reactive oxygen intermediates in the reaction of ozone with aerosol particles Shiraiwa, M., Sosedova, Y., Rouvière, A., Yang, H., Zhang, Y., Abbatt, J.P.D., Ammann, M., Pöschl, U. *2011Nature Chemistry* 3 (4) , pp. 291-295, 2011.
62. Iinuma Y, Boge O, Grafe R, et al. Methyl-Nitrocatechols: Atmospheric Tracer Compounds for Biomass Burning Secondary Organic Aerosols, *ENVIRONMENTAL SCIENCE & TECHNOLOGY*, 44(22), 8453-8459, 2010.
63. Weller C, Hoffmann D, Schaefer T, et al., Temperature and Ionic Strength Dependence of NO₃-radical Reactions with Substituted Phenols in Aqueous Solution, *ZEITSCHRIFT FÜR PHYSIKALISCHE CHEMIE-INTERNATIONAL JOURNAL OF RESEARCH IN PHYSICAL CHEMISTRY & CHEMICAL PHYSICS*, 224(7-8), 1261-1287, 2010.
64. Musilova J, Barek J, Peckova K, Determination of Nitrophenols by Flow Injection Analysis with Amperometric Detection on Boron Doped Diamond Film Electrode, Conference Information: 30th Modern Electrochemical Methods, MAY 24-28, 2010 Jetrichovice, CZECH REPUBLICSource: *MODERN ELECTROCHEMICAL METHODS XXX* , 116-118, 2010.
65. Padilla-Sanchez JA, Plaza-Bolanos P, Romero-Gonzalez R, et al. Application of a quick, easy, cheap, effective, rugged and safe-based method for the simultaneous extraction of chlorophenols, alkylphenols, nitrophenols and cresols in agricultural soils, analyzed by using gas chromatography-triple quadrupole-mass spectrometry/mass spectrometry. *JOURNAL OF CHROMATOGRAPHY A*, 1217(36), 5724-5731, 2010.
66. Mohammed AHA, Nagendrappa G., Generation of nitril chloride from chlorotrimethylsilane-acetyl nitrate reaction: A one-pot preparation of gem-chloronitro compounds from oximes, *JOURNAL OF CHEMICAL SCIENCES*, 122(4), 571-577, 2010.
67. Ganranoo L, Mishra SK, Azad AK, et al Measurement of Nitrophenols in Rain and Air by Two-Dimensional Liquid Chromatography-Chemically Active Liquid Core Waveguide Spectrometry, *ANALYTICAL CHEMISTRY*, 82(13), 5838-5843, 2010.
68. Li L, Sun YC, Wang SA, et al., New fluorescent probes based on supramolecular diastereomers for the detection of 2-nitrophenol, *TALANTA*, 81(4-5), 1643-1649, 2010.
69. Mazzoleni LR, Ehrmann BM, Shen XH, et al., Water-Soluble Atmospheric Organic Matter in Fog: Exact Masses and Chemical Formula Identification by Ultrahigh-Resolution Fourier Transform Ion Cyclotron Resonance Mass Spectrometry, *ENVIRONMENTAL SCIENCE & TECHNOLOGY*, 44(10), 3690-3697, 2010.
70. Nichols BR, Rapa C, Costa V, et al., Heterogeneous and Photochemical Reactions of Solid Benzophenone-Catechol Films with NO₂, *JOURNAL OF PHYSICAL CHEMISTRY C*, 113 (6), 2111-2119, 2009.
71. Cheng, S.-B., Zhou, C.-H., Yin, H.-M., Sun, J.-L., Han, K.-L., OH produced from o -nitrophenol photolysis: A combined experimental and theoretical investigation, *JOURNAL OF CHEMICAL PHYSICS*, 130 (23), art. no. 234311, 2009.
72. Pesticide by-products in the Rhône delta (Southern France). The case of 4-chloro-2-methylphenol and of its nitroderivative, Chiron, S., Comoretto, L., Rinaldi, E., Maurino, V., Minero, C., Vione, D., *CHEMOSPHERE* 74 (4), 599-604, 2009.
73. Wei Q, Yin HM, Sun JL, et al., The dynamics of OH channel in the 266 and 355 nm photodissociation of 2-nitrophenol, Source: *CHEMICAL PHYSICS LETTERS*, Volume: 463, (4-6), 340-344, 2008.
74. Horstkotte B, Elsholz O, Martin VC, Multisyringe flow injection analysis coupled to capillary electrophoresis (MSFIA-CE) as a novel analytical tool applied to the pre-concentration, separation and determination of nitrophenols, *TALANTA*, 76, 72-79, 2008.

75. Hofmann D, Hartmann F, Herrmann H, Analysis of nitrophenols in cloud water with a miniaturized light-phase rotary perforator and HPLC-MS, *ANALYTICAL AND BIOANALYTICAL CHEMISTRY*, 391, 161-169, 2008.
76. Klauda JB, Brooks BR, CHARM force field parameters for nitroalkanes and nitroarenes, *JOURNAL OF CHEMICAL THEORY AND COMPUTATION* 4 (1), 107-115, 2008.
77. Michalowicz J, Duda W, Phenols - Sources and toxicity, *POLISH JOURNAL OF ENVIRONMENTAL STUDIES* 16 (3), 347-362, 2007.
78. Acker K, Moller D, Atmospheric variation of nitrous acid at different sites in Europe, *ENVIRONMENTAL CHEMISTRY* 4 (4), 242-255, 2007.
79. Horstkotte B, Elsholz O, Martin VC, Development of a capillary electrophoresis system coupled to sequential injection analysis and evaluation by the analysis of nitrophenols, *INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY* 87 (12), 797-811, 2007.
80. Lezamiz J, Jonsson JA, Development of a simple hollow fibre supported liquid membrane extraction method to extract and preconcentrate dinitrophenols in environmental samples at ng L⁻¹ level by liquid chromatography, *JOURNAL OF CHROMATOGRAPHY A* 1152 (1-2), 226-233, 2007.
81. Guo XX, Brimblecombe P, Henry's law constants of phenol and mononitrophenols in water and aqueous sulfuric acid, *CHEMOSPHERE* 68 (3), 436-444, 2007.
82. Heal MR, Harrison MAJ, Cape JN, Aqueous-phase nitration of phenol by N₂O₅ and ClNO₂, *ATMOSPHERIC ENVIRONMENT* 41 (17), 3515-3520, 2007.
83. Matykiewiczova N, Kurkova R, Klanova J, et al., Photochemically induced nitration and hydroxylation of organic aromatic compounds in the presence of nitrate or nitrite in ice, *JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY* 187 (1), 24-35, 2007.
84. Iinuma, Y., Brüggemann, E., Gnauk, T., Müller, K., Andreae, M.O., Helas, G., Parmar, R., Herrmann, H., Source characterization of biomass burning particles: The combustion of selected European conifers, African hardwood, savanna grass, and German and Indonesian peat, *JOURNAL OF GEOPHYSICAL RESEARCH D: ATMOSPHERES*, 112 (8), art. no. D08209, 2007.
85. Osthoff HD, Sommariva R, Baynard T, et al., Observation of daytime N₂O₅ in the marine boundary layer during New England Air Quality Study - Intercontinental Transport and Chemical Transformation 2004, *J GEOPHYS RES-ATMOS* 111 (D23), art. no. D23S, 2006.
86. Wang XG, Wu QS, Liu WZ, et al., Simultaneous determination of dinitrophenol isomers with electrochemical method enhanced by surfactant and their mechanisms research, *ELECTROCHIM ACTA* 52 (2), 589-594, 2006.
87. Raff JD, Hites RA, Gas-phase reactions of brominated diphenyl ethers with OH radicals, *J PHYS CHEM A* 110 (37), 10783-10792, 2006.
88. Williams EJ, Fehsenfeld FC, Jobson BT, et al., Comparison of ultraviolet absorbance, chemiluminescence, and DOAS instruments for ambient ozone monitoring, *ENVIRON SCI TECHNOL* 40 (18), 5755-5762, 2006.
89. Bejan I, Abd El Aal Y, Barnes I, et al., The photolysis of ortho-nitrophenols: a new gas phase source of HONO, *PHYS CHEM CHEM PHYS* 8 (17), 2028-2035, 2006.
90. Leston AR, Ollison WM, Spicer CW, et al., Potential interference bias in ozone standard compliance monitoring, *J AIR WASTE MANAGE* 55 (10), 1464-1472, 2005.

Photochemical reactions in the tropospheric aqueous phase and on particulate matter, Vione, D., Maurino, V., Minero, C., Pelizzetti, E., Harrison, M.A.J., Olariu, R.I., Arsene, C., CHEMICAL SOCIETY REVIEWS, 35, 441-453, 2006.

91. Water-soluble carbene complexes as catalysts for the hydrogenation of acetophenone under hydrogen pressure Syska, H., Herrmann, W.A., Kühn, F.E. *Journal of Organometallic Chemistry* 703 , pp. 56-62, 2012.
92. Atmospheric photosensitized heterogeneous and multiphase reactions: From outdoors to indoors Gómez Alvarez, E., Wortham, H., Strekowski, R., Zetzsch, C., Gligorovski, S. *Environmental Science and Technology* 46 (4) , pp. 1955-1963, 2012.
93. Oxidation of atmospheric humic like substances by ozone: A kinetic and structural analysis approach Baduel, C., Monge, M.E., Voisin, D., Jaffrezo, J.-L., George, C., Haddad, I.E., Marchand, N., D'Anna, B. *Environmental Science and Technology* 45 (12) , pp. 5238-5244, 2011.
94. Quantum chemical calculations on solvation effects for selected photoreactive aromatic organic molecules of atmospheric relevance Casey, G., Wentworth, G.R., Hamilton, I.P., Al-Abadleh, H.A. *Computational and Theoretical Chemistry* 965 (2-3) , pp. 346-352, 2011.
95. DRIFTS studies on the photosensitized transformation of gallic acid by iron(III) chloride as a model for HULIS in atmospheric aerosols Wentworth, G.R., Al-Abadleh, H.A. *Physical Chemistry Chemical Physics* 13 (14) , pp. 6507-6516, 2011.
96. Applications of optical spectroscopy and stable isotope analyses to organic aerosol source discrimination in an urban area Mladenov, N., Alados-Arboledas, L., Olmo, F.J., Lyamani, H., Delgado, A., Molina, A., Reche, I. *Atmospheric Environment* 45 (11) , pp. 1960-1969, 2011.
97. Fighting global warming: The potential of photocatalysis against CO₂, CH₄, N₂O, CFCs, tropospheric O₃, BC and other major contributors to climate change deRichter, R., Caillol, S. *Journal of Photochemistry and Photobiology C: Photochemistry Reviews* 12 (1) , pp. 1-19, 2011.
98. Chemical, physical, and optical evolution of biomass burning aerosols: A case study Adler, G., Flores, J.M., Abo Riziq, A., Borrmann, S., Rudich, Y. *Atmospheric Chemistry and Physics* 11 (4) , pp. 1491-1503, 2011.
99. Surface and structural characterization of multi-walled carbon nanotubes following different oxidative treatments Wepasnick, K.A., Smith, B.A., Schrote, K.E., Wilson, H.K., Diegelmann, S.R., Fairbrother, D.H. *Carbon* 49 (1) , pp. 24-36, 2011.
100. Nissensohn P, Dabdub D, Das R, et al., Evidence of the water-cage effect on the photolysis of NO₃⁻ and FeOH₂⁺ Implications of this effect and of H₂O₂ surface accumulation on photochemistry at the air-water interface of atmospheric droplets, *ATMOSPHERIC ENVIRONMENT*, 44 (38), 4859-4866, 2010.
101. Wu SP, Wang XH, Yan JM, et al., Diurnal Variations of Particle-bound PAHs at a Traffic Site in Xiamen, China, *AEROSOL AND AIR QUALITY RESEARCH*, 10 (5), 497-506, 2010.
102. Net S, Gligorovski S, Wortham H, Light-induced heterogeneous ozone processing on organic coated particles: Kinetics and condensed-phase products, *ATMOSPHERIC ENVIRONMENT*, 44(27), 3286-3294, 2010.

103. Net S, Gligorovski S, Pietri S, et al., Photoenhanced degradation of veratraldehyde upon the heterogeneous ozone reactions, *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, 12(27), 7603-7611, 2010.
104. Liu HJ, Feng W, Kee CW, et al., Organic dye photocatalyzed alpha-oxyamination through irradiation with visible light, *GREEN CHEMISTRY* 12(6), 953-956, 2010.
105. Walgraeve C, Demeestere K, Dewulf J, et al Oxygenated polycyclic aromatic hydrocarbons in atmospheric particulate matter: Molecular characterization and occurrence, *ATMOSPHERIC ENVIRONMENT*, 44(15), 1831-1846, 2010.
106. Baduel C, Voisin D, Jaffrezo JL, Seasonal variations of concentrations and optical properties of water soluble HULIS collected in urban environments, *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 10(9), 4085-4095, 2010.
107. Kamboures MA, Nizkorodov SA, Gerber RB., Ultrafast photochemistry of methyl hydroperoxide on ice particles, *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*, 107(15), 6600-6604, 2010.
108. Sturaro A, Rella R, Parvoli G, et al., Long-term phenol, cresols and BTEX monitoring in urban air, *ENVIRONMENTAL MONITORING AND ASSESSMENT*, 164(1-4) 93-100, 2010.
109. Net S, Nieto-Gligorovski L, Gligorovski S, et al., Heterogeneous ozonation kinetics of 4-phenoxyphenol in the presence of photosensitizer, *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 10(4) 1545-1554, 2010.
110. Hernandez-Mena L, Saldarriaga-Norena H, Carbajal-Romero P, et al Ionic species associated with PM2.5 in the City of Guadalajara, Mexico during 2007, *ENVIRONMENTAL MONITORING AND ASSESSMENT*, 161(1-4), 281-293, 2010.
111. Net S, Nieto-Gligorovski L, Gligorovski S, et al., Heterogeneous light-induced ozone processing on the organic coatings in the atmosphere, *ATMOSPHERIC ENVIRONMENT*, 43 (9), 1683-1692, 2009.
112. Sosedova, Y., Rouvière, A., Gäggeler, H.W., Ammann, M., Uptake of NO₂ to deliquesced dihydroxybenzoate aerosol particles, *JOURNAL OF PHYSICAL CHEMISTRY A*, 113, (41), 10979-10987, 2009.
113. Liu, H., Zhao, H., Quan, X., Zhang, Y., Chen, S., Formation of chlorinated intermediate from bisphenol A in surface saline water under simulated solar light irradiation, *ENVIRONMENTAL SCIENCE AND TECHNOLOGY* 43 (20), 7712-7717, 2009.
114. Vaida V., Spectroscopy of Photoreactive Systems: Implications for Atmospheric Chemistry, *JOURNAL OF PHYSICAL CHEMISTRY A*, 113, (1), 5-18, 2009.
115. Cowen, S., Al-Abadleh, H.A., DRIFTS studies on the photodegradation of tannic acid as a model for HULIS in atmospheric aerosols, *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, 11 (36), 7838-7847, 2009.
116. Bakac, A., Schouten, M., Johnson, A., Song, W., Pestovsky, O., Show, Szajna-Fuller, E., Oxidation of a water-soluble phosphine and some spectroscopic probes with nitric oxide and nitrous acid in aqueous solutions, *INORGANIC CHEMISTRY*, 48 (14), 6979-6985, 2009.
117. Mang SA, Henricksen DK, Bateman AP, et al., Contribution of carbonyl photochemistry to aging of atmospheric secondary organic aerosol, *JOURNAL OF PHYSICAL CHEMISTRY A*, 112, 8337-8344, 2008.
118. Bagot PAJ, Waring C, Costen ML, et al., Dynamics of inelastic scattering of OH radicals from reactive and inert liquid surfaces, *JOURNAL OF PHYSICAL CHEMISTRY C*, 112, 10868-10877, 2008.
119. Kocbach A, Namork E, Schwarze PE, Pro-inflammatory potential of wood smoke and traffic-derived particles in a monocytic cell line, *TOXICOLOGY*, 247, 123-132, 2008.
120. Nieto-Gligorovski L, Net S, Gligorovski S, et al., Interactions of ozone with organic surface films in the presence of simulated sunlight: impact on wettability of aerosols, *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, 10, 2964-2971, 2008.
121. Cheng MM, Bakac A, Photochemical oxidation of halide ions by a nitrochromium(III) complex. Kinetics, mechanism, and intermediates, *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*, 130, 5600-5605, 2008.
122. Stella L, Seraglia R, Sturaro A, et al., On the photochemical oxidation of benzene and its relevance at environmental level, *RAPID COMMUNICATIONS IN MASS SPECTROMETRY* 22 (2), 257-260 2008.
123. Anastasio C, Robles T, Light absorption by soluble chemical species in Arctic and Antarctic snow, *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES* 112 (D24), Art. No. D24304, 2007.
124. Herrmann H, On the photolysis of simple anions and neutral molecules as sources of O-/OH, SO_x- and Cl in aqueous solution, *PHYSICAL CHEMISTRY CHEMICAL PHYSICS* 9 (30), 3935-3964, 2007.
125. Handley SR, Clifford D, Donaldson DJ, Photochemical loss of nitric acid on organic films: A possible recycling mechanism for NO_x, *ENVIRONMENTAL SCIENCE & TECHNOLOGY* 41 (11), 3898-3903, 2007.
126. Wu XF, Xiao JL, Aqueous-phase asymmetric transfer hydrogenation of ketones - a greener approach to chiral alcohols, *CHEMICAL COMMUNICATIONS* (24), 2449-2466, 2007.
127. Chu L, Anastasio C, Temperature and wavelength dependence of nitrite photolysis in frozen and aqueous solutions, *ENVIRONMENTAL SCIENCE & TECHNOLOGY* 41 (10), 3626-3632, 2007.
128. Chen J, Valsaraj KT, Uptake and UV-Photooxidation of gas-phase polyaromatic hydrocarbons on the surface of atmospheric water films. 2. Effects of dissolved surfactants on naphthalene photooxidation, *JOURNAL OF PHYSICAL CHEMISTRY A* 111 (20), 4289-4296, 2007.
129. Reiss R, Anderson EL, Cross CE, et al., Evidence of health impacts of sulfate- and nitrate-containing particles in ambient air, *INHALATION TOXICOLOGY* 19 (5), 419-449, 2007.

Sources and sinks of hydroxyl radical upon irradiation of natural water samples, Vione, D., Falletti, G., Maurino, V., Minero, C., Pelizzetti, E., Malandrino, M., Ajassa, R., Olariu, R.I., Arsene, C., ENVIRONMENTAL SCIENCE AND TECHNOLOGY, 40, 3775-3781, 2006.

130. Tetracycline degradation in aqueous phase by ultraviolet radiation Gómez-Pacheco, C.V., Sánchez-Polo, M., Rivera-Utrilla, J., López-Peñalver, J.J. *Chemical Engineering Journal* 187 , pp. 89-95, 2012.
131. Effects of dissolved water constituents on the photodegradation of fenitrothion and diazinon Ukpebor, J.E., Halsall, C.J. *Water, Air, and Soil Pollution* 223 (2) , pp. 655-666, 2012.
132. Environmental behavior of synthetic pyrethroids Katagi, T. *Topics in Current Chemistry* 314 , pp. 167-202, 2012.
133. Photodegradation of psychiatric pharmaceuticals in aquatic environments - Kinetics and photodegradation products Calisto, V., Domingues, M.R.M., Esteves, V.I. *Water Research* 45 (18) , pp. 6097-6106, 2011.

134. Automobile exhaust gas as a source of aqueous phase OH radical in the atmosphere and its effects on physiological status of pine trees Sakugawa, H., Matsuda, T., Nakatani, N. *Chemosphere* 85 (5) , pp. 812-819, 2011.
135. Effect of abiotic and biotic factors on the photo-induced production of dissolved gaseous mercury Oh, S., Kim, M.-K., Lee, Y.-M., Zoh, K.-D. *Water, Air, and Soil Pollution* 220 (1-4) , pp. 353-363, 2011.
136. Temperature dependence of the reaction between the hydroxyl radical and organic matter McKay, G., Dong, M.M., Kleinman, J.L., Mezyk, S.P., Rosario-Ortiz, F.L. *Environmental Science and Technology* 45 (16) , pp. 6932-6937, 2011.
137. Assessing the contribution of free hydroxyl radical in organic matter-sensitized photohydroxylation reactions Page, S.E., Arnold, W.A., McNeill, K. *Environmental Science and Technology* 45 (7) , pp. 2818-2825, 2011.
138. A photophysical approach to investigate the photooxidation mechanism of pesticides: Hydroxyl radical versus electron transfer Marin, M.L., Lhiaubet-Vallet, V., Santos-Juanes, L., Soler, J., Gomis, J., Arques, A., Amat, A.M., Miranda, M.A. *Applied Catalysis B: Environmental* 103 (1-2) , pp. 48-53, 2011.
139. Photodegradation of 17 β -estradiol in aquatic solution under solar irradiation: Kinetics and influencing water parameters Chowdhury, R.R., Charpentier, P.A., Ray, M.B. *Journal of Photochemistry and Photobiology A: Chemistry* 219 (1) , pp. 67-75, 2011.
140. Phthalhydrazide chemiluminescence method for determination of hydroxyl radical production: Modifications and adaptations for use in natural systems Miller, C.J., Rose, A.L., Waite, T.D. *Analytical Chemistry* 83 (1) , pp. 261-268, 2011.
141. Photosensitized degradation of amoxicillin in natural organic matter isolate solutions Xu, H., Cooper, W.J., Jung, J., Song, W. *Water Research* 45 (2) , pp. 632-638, 2011.
142. Direct photodegradation of carbamazepine followed by micellar electrokinetic chromatography and mass spectrometry Calisto, V., Domingues, M.R.M., Erny, G.L., Esteves, V.I. *Water Research* 45 (3) , pp. 1095-1104, 2011.
143. Lopez-Penalver JJ, Sanchez-Polo M, Gomez-Pacheco CV, et al., Photodegradation of tetracyclines in aqueous solution by using UV and UV/H₂O₂ oxidation processes, *JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY*, 85(10), 1325-1333, 2010.
144. Page SE, Arnold WA, McNeill K, Terephthalate as a probe for photochemically generated hydroxyl radical, *JOURNAL OF ENVIRONMENTAL MONITORING*, 12(9), 1658-1665, 2010.
145. Fu HB, Cwiertny DM, Carmichael GR, et al., Photoreductive dissolution of Fe-containing mineral dust particles in acidic media, *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, 115, D11304, 2010.
146. Kahan TF, Zhao R, Donaldson DJ., Hydroxyl radical reactivity at the air-ice interface, *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 10(2), 843-854, 2010.
147. Vermilyea, A.W., Voelker, B.M., Photo-fenton reaction at near neutral pH, *ENVIRONMENTAL SCIENCE AND TECHNOLOGY*, 43 (18), 6927-6933, 2009.
148. Dell'Arciprete, M.L., Santos-Juanes, L., Sanz, A.A., Vicente, R., Amat, A.M., Furlong, J.P., Mártire, D.O., Gonzalez, M.C., Reactivity of hydroxyl radicals with neonicotinoid insecticides: Mechanism and changes in toxicity, *PHOTOCHEMICAL AND PHOTOBIOLOGICAL SCIENCES*, 8 (7), 1016-1023, 2009.
149. Wang L, Sun HW, Wu YH, et al., Photodegradation of nonylphenol polyethoxylates in aqueous solution, *ENVIRONMENTAL CHEMISTRY*, 6 (2), 185-193, 2009.
150. Morgada, M.E., Levy, I.K., Salomone, V., Farias, S.S., López, G., Litter, M.I., Arsenic (V) removal with nanoparticulate zerovalent iron: Effect of UV light and humic acids, *CATALYSIS TODAY*, 143 (3-4), 261-268, 2009.
151. Nélieu, S., Perreau, F., Bonnemoy, F., Ollitrault, M., Azam, D., Lagadic, L., Bohatier, J., Einhorn, J., Sunlight nitrate-induced photodegradation of chlorotoluron: Evidence of the process in aquatic mesocosms, *ENVIRONMENTAL SCIENCE AND TECHNOLOGY*, 43 (9), 3148-3154, 2009.
152. Ge, L., Chen, J., Qiao, X., Lin, J., Cai, X., Light-source-dependent effects of main water constituents on photodegradation of phenicol antibiotics: Mechanism and kinetics, *ENVIRONMENTAL SCIENCE AND TECHNOLOGY*, 43 (9), 3101-3107, 2009.
153. Citată în 2008
154. Wang AM, Hu C, Qu JH, et al., Phototransformation of nitrobenzene in the Songhua River: Kinetics and photoproduct analysis, *JOURNAL OF ENVIRONMENTAL SCIENCES-CHINA*, 20, 787-795, 2008.
155. Ou XX, Chen S, Quan X, et al., Photoinductive activity of humic acid fractions with the presence of Fe(III): The role of aromaticity and oxygen groups involved in fractions, *CHEMOSPHERE*, 72, 925-931, 2008.
156. Ou XX, Quan X, Chen S, et al., Photocatalytic reaction by Fe(III)-citrate complex and its effect on the photodegradation of atrazine in aqueous solution, *JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY*, 197, 382-388, 2008.
157. Prairie YT, Carbocentric limnology: looking back, looking forward, *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES*, 65, 543-548, 2008.
158. Espinoza LAT, Neamtu M, Frimmel FH, The effect of nitrate, Fe(III) and bicarbonate on the degradation of bisphenol A by simulated solar UV-irradiation, *WATER RESEARCH* 41 (19): 4479-4487 NOV 2007.
159. Matta R, Hanna K, Chiron S, Fenton-like oxidation of 2,4,6-trinitrotoluene using different iron minerals, *SCIENCE OF THE TOTAL ENVIRONMENT* 385 (1-3), 242-251, 2007.
160. Schoonen MAA, Cohn CA, Roemer E, et al., Mineral-induced formation of reactive oxygen species, *REVIEWS IN MINERALOGY & GEOCHEMISTRY* 64, 179-221, 2006.

Rate Coefficients for the Gas-Phase Reaction with OH radicals with Selected Dihydroxybenzenes and Benzoquinones, Olariu, R.I., Barnes, I., Becker K.H., B. Klotz, INTERNATIONAL JOURNAL OF CHEMICAL KINETICS, 32-696-702, 2000.

161. Ofner, J., Krüger, H.-U., Grothe, H., Schmitt-Kopplin, P., Whitmore, K., Zetzsch, C. Physico-chemical characterization of SOA derived from catechol and guaiacol - A model substance for the aromatic fraction of atmospheric HULIS *Atmospheric Chemistry and Physics* 11 (1) , pp. 1-15, 2011.
162. Coeur-Tourneur C, Cassez A, Wenger JC., Rate Coefficients for the Gas-Phase Reaction of Hydroxyl Radicals with 2-Methoxyphenol (Guaiacol) and Related Compounds, *JOURNAL OF PHYSICAL CHEMISTRY A*, 114(43), 11645-11650, 2010.

163. Sheehy PM, Volkamer R, Molina LT, et al., Oxidative capacity of the Mexico City atmosphere - Part 2: A ROx radical cycling perspective, *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 10(14), 6993-7008, 2010.
164. Coeur-Tourneur C, Foulon V, Lareal M., Determination of aerosol yields from 3-methylcatechol and 4-methylcatechol ozonolysis in a simulation chamber, *ATMOSPHERIC ENVIRONMENT*, 44(6), 852-857, 2010.
165. Sosedova, Y., Rouvière, A., Gäggeler, H.W., Ammann, M., Uptake of NO₂ to deliquesced dihydroxybenzoate aerosol particles, *JOURNAL OF PHYSICAL CHEMISTRY A*, 113 (41), 10979-10987, 2009.
166. Cai, X., Ziemba, L.D., Griffin, R.J., Secondary aerosol formation from the oxidation of toluene by chlorine atoms, *ATMOSPHERIC ENVIRONMENT*, 42 (32), 7348-7359, 2008.
167. Mert, E.H., Yalçın, Y., Kiliç, M., San, N., Çınar, Z., Surface modification of TiO₂ with ascorbic acid for heterogeneous photocatalysis: Theory and experiment, *JOURNAL OF ADVANCED OXIDATION TECHNOLOGIES*, 11 (2), 199-207, 2008.
168. Sheehy, P.M., Volkamer, R., Molina, L.T., Molina, M.J., Oxidative capacity of the Mexico City atmosphere - Part 2: A ROx radical cycling perspective, *ATMOSPHERIC CHEMISTRY AND PHYSICS DISCUSSIONS*, 8 (2), 5359-5412, 2008.
169. Henry, F., Coeur-Tourneur, C., Ledoux, F., Tomas, A., Menu, D., Secondary organic aerosol formation from the gas phase reaction of hydroxyl radicals with m-, o- and p-cresol, *ATMOSPHERIC ENVIRONMENT*, 42 (13), 3035-3045, 2008.
170. Kiliç, M., Koçtürk, G., San, N., Çınar, Z., A model for prediction of product distributions for the reactions of phenol derivatives with hydroxyl radicals, *CHEMOSPHERE*, 69 (9), 1396-1408, 2007.
171. Kiliç, M., San, N., Çınar, Z., Modeling of the photocatalytic degradation reactions of aromatic pollutants: A solvent effect model, *JOURNAL OF ADVANCED OXIDATION TECHNOLOGIES*, 10 (1), 60-66, 2007.
172. Coeur-Tourneur, C., Henry, F., Janquin, M.-A., Brutier, L., Gas-phase reaction of hydroxyl radicals with m-, o- and p-cresol, *INTERNATIONAL JOURNAL OF CHEMICAL KINETICS*, 38 (9), 553-562, 2006.
173. George C, Strekowski RS, Kleffmann J, et al., Photoenhanced uptake of gaseous NO₂ on solid-organic compounds: a photochemical source of HONO? *FARADAY DISCUSSIONS*, 130, 195-210 2005.
174. Trentmann J, Yokelson RJ, Hobbs PV, et al., An analysis of the chemical processes in the smoke plume from a savanna fire, *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, 110 (D12), Art. No. D12301, 2005.
175. Cabanas B, Villanueva F, Martin P, et al., Study of reaction processes of furan and some furan derivatives initiated by Cl atoms, *ATMOSPHERIC ENVIRONMENT*, 39 (10), 1935-1944, 2005.
176. Bloss C, Wagner V, Jenkin ME, et al., Development of a detailed chemical mechanism (MCMv3.1) for the atmospheric oxidation of aromatic hydrocarbons, *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 5, 641-664, 2005.

Chemical composition of rainwater in the north-eastern Romania, Iasi region (2003-2006), Arsene, C., Olariu, R.I., Mihalopoulos, N., *ATMOSPHERIC ENVIRONMENT*, 41, 9452-946, 2007.

177. Analytical characterization of precipitations Dobrinas, S., Soceanu, A., Stanciu, G., Popescu, V., Epure, D.T., Bicoiu, C. Scientific Study and Research: Chemistry and Chemical Engineering, Biotechnology, Food Industry 12 (1), pp. 041-048, 2011.
178. Rainwater and the resulting runoff chemistry in Shiraz city, southwest Iran Moore, F., Attar, A. *International Journal of Environmental Studies* 68 (5), pp. 703-717, 2011.
179. Chemical composition of rainwater at a coastal town on the southwest of Europe: What changes in 20 years? Santos, P.S.M., Otero, M., Santos, E.B.H., Duarte, A.C. *Science of the Total Environment* 409 (18), pp. 3548-3553, 2011.
180. Characteristics of chemical compositions of precipitation in Beijing Yang, D.-Y., Li, X.-J., Chen, Y.-Y., Zou, B.-D., Lin, A.-G., *Huanjing Kexue/Environmental Science* 32 (7), pp. 1867-1873, 2011.
181. Assessment of the sequential principal component analysis chemometric tool to identify the soluble atmospheric pollutants in rainwater Montoya-Mayor, R., Fernández-Espinosa, A.J., Ternero-Rodríguez, M. *Analytical and Bioanalytical Chemistry* 399 (6), pp. 2031-2041, 2011.
182. Chemical characteristics and source apportionment of precipitation in Guiyang Xiao, H.-W., Xiao, H.-Y., Wang, Y.-L., *Zhongguo Huanjing Kexue/China Environmental Science* 30 (12), pp. 1590-1596, 2010.
183. Seasonal variation in long-range transported dust to a subtropical islet offshore northern Taiwan: Chemical composition and Sr isotopic evidence in rainwater Cheng, M.-C., You, C.-F., Lin, F.-J., Chung, C.-H., Huang, K.-F. *Atmospheric Environment* 44 (28), pp. 3386-3393, 2010.
184. Atmospheric and surface water pollution interpretation in the gdańsk beltway impact range by the use of multivariate analysis Dubiella-Jackowska, A., Astel, A., Polkowska, Z., Staszek, W., Kudlak, B., Namieśnik, J. *Clean - Soil, Air, Water* 38 (9), pp. 865-876, 2010.
185. Sources of major ions and heavy metals in rainwater associated with typhoon events in southwestern Taiwan Cheng, M.-C., You, C.-F. *Journal of Geochemical Exploration* 105 (3), pp. 106-116, 2010.
186. In-cloud and below-cloud scavenging of aerosol ionic species over a tropical rural atmosphere in India Chatterjee, A., Jayaraman, A., Rao, T.N., Raha, S. *Journal of Atmospheric Chemistry* 66 (1-2), pp. 27-40, 2010.
187. Scavenging by precipitation of major chemical constituents at two romanian sampling sites Iorga, G., Paun, V. *Revista de Chimie* 61 (5), pp. 515-520, 2010.
188. Chemical composition of wet precipitation at the background EMEP station in Viznar (Granada, Spain) (2002-2006) Calvo, A.I., Olmo, F.J., Lyamani, H., Alados-Arboledas, L., Castro, A., Fernández-Raga, M., Fraile, R. *Atmospheric Research* 96 (2-3), pp. 408-420, 2010.
189. A new direction in effective accounting for the atmospheric CO₂ budget: Considering the combined action of carbonate dissolution, the global water cycle and photosynthetic uptake of DIC by aquatic organisms Liu, Z., Dreybrodt, W., Wang, H. *Earth-Science Reviews* 99 (3-4), pp. 162-172, 2010.
190. Spatio-temporal variation of pH and ionic concentrations in precipitation: Interaction between two contrasting stationary sources affecting air quality Choi, B.-Y., Yun, S.-T., Yeom, G.-I., Kim, K.-H., Kim, K.-H., Koh, Y.-K., *Geosciences Journal* 12 (3), pp. 205-213, 2008

Chemical Mechanism Development: Laboratory Studies and Model Applications, H. Geiger, I. Barnes, K.H. Becker, B. Bohn, T. Brauers, B. Dornner, H.P. Dorn, M. Elend, C.M. Freitas Dinis, D. Grossmann, H. Hass, H. Hein, Al. Hoffmann, L. Hoppe, F. Hülsemann, D. Kley, B. Klotz, H.G. Libuda, T. Maurer, D. Mihelcic, G.K. Moortgat, R. Olariu, P. Neeb, D. Poppe, L. Ruppert, C.G. Sauer, O. Shestakov, H. Somnitz, W. Stockwell, L.P. Thürner, A. Wahner, P. Wiesen, F. Zabel, R. Zellner, C. Setzsch, JOURNAL OF ATMOSPHERIC CHEMISTRY, 42, 323-357, 2002.

191. Karl, M., Dye, C., Schmidbauer, N., Wisthaler, A., Mikoviny, T., D'Anna, B., Müller, M., Brauers, T. Study of OH-initiated degradation of 2-aminoethanol Atmospheric Chemistry and Physics 12 (4), pp. 1881-1901, 2012.
192. Andersen VF, Wallington TJ, Nielsen OJ., Atmospheric Chemistry of i-Butanol, JOURNAL OF PHYSICAL CHEMISTRY A, 114(47), 12462-12469, 2010.
193. Parker, J.K., Espada-Jallad, C., Kinetics of the gas-phase reactions of OH and NO₃ radicals and O₃ with allyl alcohol and allyl isocyanate, JOURNAL OF PHYSICAL CHEMISTRY A, 113 (36), 9814-9824, 2009.
194. Atkinson, R., Rate constants for the atmospheric reactions of alkoxy radicals: An updated estimation method, ATMOSPHERIC ENVIRONMENT, 41 (38), 8468-8485, 2007.
195. Aschmann, S.M., Long, W.D., Atkinson, R., Temperature-dependent rate constants for the gas-phase reactions of OH radicals with 1,3,5-trimethylbenzene, triethyl phosphate, and a series of alkylphosphonates, JOURNAL OF PHYSICAL CHEMISTRY A, 110 (23), 7393-7400, 2006.
196. Cassanelli, P., Cox, R.A., Orlando, J.J., Tyndall, G.S., An FT-IR study of the isomerization of 1-butoxy radicals under atmospheric conditions, JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A: CHEMISTRY, 177 (2-3), 109-115, 2006.
197. Cassanelli, P., Johnson, D., Cox, R., A temperature-dependent relative-rate study of the OH initiated oxidation of n-butane: The kinetics of the reactions of the 1- and 2-butoxy radicals, PHYSICAL CHEMISTRY CHEMICAL PHYSICS, 7 (21), 3702-3710, 2005.
198. Kirchner F., The chemical mechanism generation programme CHEMATA - Part 1: The programme and first applications. ATMOSPHERIC ENVIRONMENT, 39 (6), 1143-1159, 2005.
199. Straube, R., Flockerzi, D., Müller, S.C., Hauser, M.J.B., Reduction of chemical reaction networks using quasi-integrals, JOURNAL OF PHYSICAL CHEMISTRY A, 109 (3), 441-450, 2005.

Investigations on the gas-phase photolysis and OH radical kinetics of methyl-2-nitrophenols, Bejan I., Barnes I., Olariu R., Zhou S., Wiesen P., Benter T. PHYSICAL CHEMISTRY CHEMICAL PHYSICS, (42) 5686-5692, 2007.

200. Chen, J., Wenger, J.C., Venables, D.S. Near-ultraviolet absorption cross sections of nitrophenols and their potential influence on tropospheric oxidation capacity Journal of Physical Chemistry A 115 (44), pp. 12235-12242, 2011.
201. Ozel MZ, Ward MW, Hamilton JF, et al., Analysis of Organic Nitrogen Compounds in Urban Aerosol Samples Using GCxGC-TOF/MS, AEROSOL SCIENCE AND TECHNOLOGY 44 (2), 109-116, 2010.
202. Monks, P.S., Granier, C., Fuzzi, S., et al., Atmospheric composition change - global and regional air quality, ATMOSPHERIC ENVIRONMENT 43 (33), 5268-5350, 2009.
203. , M., Xie, P., Su, H., Gu, J., Peng, F., Li, S., Zeng, L., Liu, J., Liu, W., Zhang, Y., An observational study of the HONO-NO₂ coupling at an urban site in Guangzhou City, South China, ATMOSPHERIC ENVIRONMENT 43 (36), 5731-5742, 2009.
204. Böhnhardt, A., Kühne, R., Ebert, R.-U., Schüürmann, G., Indirect photolysis of organic compounds: Prediction of OH reaction rate constants through molecular orbital, JOURNAL OF PHYSICAL CHEMISTRY A, 112 (45), 11391-11399, 2008.
205. Henry, F., Coeur-Tourneur, C., Ledoux, F., Tomas, A., Menu, D., Secondary organic aerosol formation from the gas phase reaction of hydroxyl radicals with m-, o- and p-cresol, ATMOSPHERIC ENVIRONMENT 42 (13), 3035-3045, 2008.

Rate Coefficient for the Gase-Phase Reaction of NO₃ Radicals with Selected, International Journal of Chemical Kinetics, 36, 577-583, 2004. Dihydroxybenzene. Autori: R.I. Olariu; I. Bejan, I. Barnes, B. Klotz, K.H. Becker, K. Wirtz.

206. Bedini, A., Maurino, V., Minero, C., Vione, D., Theoretical and experimental evidence of the photonitration pathway of phenol and 4-chlorophenol: A mechanistic study of environmental significance Photochemical and Photobiological Sciences 11 (2), pp. 418-424, 2012.
207. Coeur-Tourneur C, Cassez A, Wenger JC., Rate Coefficients for the Gas-Phase Reaction of Hydroxyl Radicals with 2-Methoxyphenol (Guaiacol) and Related Compounds, JOURNAL OF PHYSICAL CHEMISTRY A, 114(43), 11645-11650, 2010.
208. Coeur-Tourneur C, Foulon V, Lareal M., Determination of aerosol yields from 3-methylcatechol and 4-methylcatechol ozonolysis in a simulation chamber, ATMOSPHERIC ENVIRONMENT, 44(6), 852-857, 2010.
209. Thüner, L.P., Bardini, P., Rea, G.J., Wenger, J.C., Kinetics of the gas-phase reactions of OH and NO₃ radicals with dimethylphenols Journal of Physical Chemistry A 108 (50), pp. 11019-11025, 2004.

4-Methylpyrimidinium Ylides II: Selective Reactions of Pyrimidinium Ylides with Activated Alkynes, Synthesis, 14, 2047-2050, 2000, Mangalagiu, G. C.; Mangalagiu, I.I.; Olariu, R.I. and Petrovanu, M.G.,

210. Efficient one-pot, three-component synthesis of a library of pyrrolo[1,2-c]pyrimidine derivatives Georgescu, E., Georgescu, F., Popa, M.M., Draghici, C., Tarko, L., Dumitrascu, F. ACS Combinatorial Science 14 (2), pp. 101-107, 2012.
211. A convenient route for synthesis of new stable 1,4-dione compounds from three component reactions of 4,4,4-trifluoro-1-thiophen-2-ylbutan-1,3-dione, dialkyl acetylenecesters and azines Pourshamsian, K.H., Montazeri, N., Ali-Asgari, S., Zeydi, M.M., Biazar, E. Oriental Journal of Chemistry 27 (3), pp. 1017-1021, 2011.
212. Novel multicomponent reactions involving isoquinoline or phenanthridine and activated acetylenic ester in the presence of heterocyclic NH or 1,3-dicarbonyl compounds Nassiri, M., Maghsoodlou, M.T., Heydari, R., Habibi Khorassani, S.M. 2008 Molecular Diversity 12 (2), pp. 111-117, 2011.
213. A novel one-pot, three-component access to hexahydropyrrolo[2,1-a] isoquinolines by an alkylation-dehydrohalogenation-1,3-dipolar cycloaddition sequence Nyerges, M., Somfai, B., Tóth, J., Toke, L., Dancsó, A., Blaskó, G. Synthesis (12), pp. 2039-2045, 2005.

Kinetics of the reaction of O₃ with selected benzenediols, Tomas A., Olariu R.I., Barnes I., Becker K.H., INTERNATIONAL JOURNAL OF CHEMICAL KINETICS, (6) 223-230, 2003.

214. Ofner, J., Krüger, H.-U., Grothe, H., Schmitt-Kopplin, P., Whitmore, K., Zetzsch, C. Physico-chemical characterization of SOA derived from catechol and guaiacol - A model substance for the aromatic fraction of atmospheric HULIS Atmospheric Chemistry and Physics 11 (1) , pp. 1-15, 2011.
215. Woodill LA, Hinrichs RZSource, Heterogeneous reactions of surface-adsorbed catechol with nitrogen dioxide: substrate effects for tropospheric aerosol surrogates, PHYSICAL CHEMISTRY CHEMICAL PHYSICS, 12(36), 10766-10774 2010.
216. Coeur-Tourneur C, Foulon V, Lareal M., Determination of aerosol yields from 3-methylcatechol and 4-methylcatechol ozonolysis in a simulation chamber, ATMOSPHERIC ENVIRONMENT, 44(6), 852-857, 2010.
217. Johnson, D., Jenkin, M.E., Wirtz, K., Martin-Reviejo, M., Simulating the formation of secondary organic aerosol from the photooxidation of aromatic hydrocarbons, ENVIRONMENTAL CHEMISTRY, 2 (1), 35-48, 2005.

Studies regarding groundwater quality at rural bites. 2. Photochemical generation of OH and NO₂ radicals upon UV-A irradiation of nitrate-rich groundwater, Revista de Chimie 60 (6), 551-554, 2009. Autori: Vione, D., Rinaldi, E., Minero, C., Maurino, V., Olariu, R.-I., Arsene, C.

218. Modrogan C, Diaconu E, Orbulat OD, et al., Forecasting Study for Nitrate Ion Removal Using Reactive Barriers, REVISTA DE CHIMIE 61(6), 580-584, 2010.
219. Constantin MM, Corbu C, Ionita G, EPR Study on the Role of Riboflavin Used in Photo-Oxidative Collagen Cross-Linking, REVISTA DE CHIMIE 61 (5), 495-497, 2010.
220. Iorga G, Paun VSource Scavenging by Precipitation of Major Chemical Constituents at Two Romanian Sampling Sites, REVISTA DE CHIMIE, 61(5), 515-520, 2010.

Inhibition vs. enhancement of the nitrate-induced phototransformation of organic substrates by the OH scavengers bicarbonate and carbonate, Water Research 43, 4718 – 4728, 2009. Davide Vione, Swapan Khanra, Simona Cucu Man, Pratap Reddy Maddigapu, Radharani Das, Cecilia Arsene, Romeo-Iulian Olariu, Valter Maurino, Claudio Minero,

221. Ji, Y.-F., Zeng, C., Meng, C., Yang, X., Gao, S.-X. Photodegradation of atenolol in aqueous nitrate solution, Huanjing Kexue/Environmental Science 33 (2) , pp. 481-487, 2012.
222. Mao, L., Meng, C., Zeng, C., Ji, Y., Yang, X., Gao, S The effect of nitrate, bicarbonate and natural organic matter on the degradation of sunscreen agent p-aminobenzoic acid by simulated solar irradiation. Science of the Total Environment 409 (24) , pp. 5376-5381, 2011.
223. Klamerth, N., Malato, S., Maldonado, M.I., Agüera, A., Fernández-Alba, A. Modified photo-Fenton for degradation of emerging contaminants in municipal wastewater effluents Catalysis Today 161 (1) , pp. 241-246, 2011.

Photostability and photolability of dissolved organic matter upon irradiation of natural water samples under simulated sunlight, Aquatic Sciences, 71 (1), 34-45, 2009. Autorii: Vione Davide, Lauri Vittorio, Minero Claudio, Maurino Valter, Malandrino Mery Carlotti Maria Eugenia, Olariu Romeo-Iulian, Arsene Cecilia.

224. Zepp, R.G., Erickson Iii, D.J., Paul, N.D., Sulzberger, B. Effects of solar UV radiation and climate change on biogeochemical cycling: Interactions and feedbacks Photochemical and Photobiological Sciences 10 (2) , pp. 261-279, 2011.
225. Camp JV, George DB, Wells MJM, et al., Monitoring advanced oxidation of Suwannee River fulvic acid, ENVIRONMENTAL CHEMISTRY, 7 (3), 225-231, 2010.
226. Andradý A, Aucamp PJ, Bais AF, et al., Environmental effects of ozone depletion and its interactions with climate change: progress report, 2009, PHOTOCHEMICAL & PHOTOBIOLOGICAL SCIENCES 9 (3), 275-294, 2010.

Sample preparation for trace analysis by chromatographic methods, Journal of Liquid Chromatography & Related Technologies, 33, 9, 1174-1207, 2010. Romeo-Iulian Olariu, Davide Vione, Nelu Grinberg, Cecilia Arsene,

227. Groskreutz, S.R., Swenson, M.M., Secor, L.B., Stoll, D.R. Selective comprehensive multi-dimensional separation for resolution enhancement in high performance liquid chromatography. Part I: Principles and instrumentation Journal of Chromatography A 1228 , pp. 31-40, 2012.
228. Martín, J., Buchberger, W., Alonso, E., Himmelsbach, M., Aparicio, I. Comparison of different extraction methods for the determination of statin drugs in wastewater and river water by HPLC/Q-TOF-MS Talanta 85 (1) , pp. 607-615, 2011.

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, Davide Vione, Valter Maurino, Claudio Minero, Marius Duncianu, Romeo-Iulian Olariu, Cecilia Arsene, Mohamed Sarrakha, Gilles Mailhot.

229. Rubio, M.A., Lissi, E., Herrera, N., Pérez, V., Fuentes, N Phenol and nitrophenols in the air and dew waters of Santiago de Chile. Chemosphere 86 (10) , pp. 1035-1039, 2012.
230. Nissensohn P, Dabdub D, Das R, et al., Evidence of the water-cage effect on the photolysis of NO₃⁻ and FeOH₂⁺ Implications of this effect and of H₂O₂ surface accumulation on photochemistry at the air-water interface of atmospheric droplets, ATMOSPHERIC ENVIRONMENT, 44 (38), 4859-4866, 2010.

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, Danut Cozma, Catalin Tănase, Cristian Tunsu, Romeo-Iulian Olariu, Alin Ionaș, Aurel Pui.

231. Lupu, C., Rugina, C., Neagu, M.-C., Neamtiu, I.A., Pop, C., Gurzau, E.S. Environmental and social intervention strategies in lead exposure in children Environmental Engineering and Management Journal 10 (1) , pp. 31-36, 2011.

232. Senila, M., Levei, E., Miclean, M., Senila, L., Stefanescu, L., Mărginean, S., Ozunu, A., Roman, C. Influence of pollution level on heavy metals mobility in soil from NW Romania Environmental Engineering and Management Journal 10 (1) , pp. 59-64, 2011.

Theoretical study of the molecular proprieties of benzyle azide, 2-, 3-, 4-methylbenzyl azide, J.P.Santos, M.L. Costa, R.I.Olariu, F.Parente, EUROPEAN PHYSICAL JOURNAL D, 39 (3), 379-384, 2006.

233. Živanov, S., Ibanescu, B.C., Paech, M., Poffet, M., Baettig, P., Sergenton, A.-C., Grimme, S., Allan, M., Dissociative electron attachment and electron energy-loss spectra of phenyl azide, JOURNAL OF PHYSICS B: ATOMIC, MOLECULAR AND OPTICAL PHYSICS, 40 (1), art. no. 009, 101-109, 2007.

234. Mateus, M.P.S., Cabral, B.J.C., Electron binding energies of organic azides: Green's function and density functional theory versus Hartree-Fock calculations, CHEMICAL PHYSICS LETTERS, 448 (4-6), 280-286, 2007.

Bioremediation Perspective of Bacillus Megaterium Towards Heavy Metals in Environments Enriched with Phosphogypsum, Revista de Chimie, 62 (2), 245-249, 2011. Ioana Adriana Stefanescu, Lucian Gavrilă, Raluca Delia Mocanu, Romeo Iulian Olariu, Cecilia Arsene,

235. Lazar, G., Ureche, D., Ifrim, I.L., Stamate, M., Ureche, C., Nedeff, V., Nistor, I.D., Lazar, I.M., Effects of the environmental stress on two fish populations revealed by statistical and spectral analysis Environmental Engineering and Management Journal 11 (1) , pp. 109-124, 2012.

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. Gherasim, C.V.I., Bourceanu, G., Olariu, R.-I., Arsene, C.

236. Guo, L., Zhang, J., Zhang, D., Liu, Y., Deng, Y., Chen, J. Preparation of poly(vinylidene fluoride-co-tetrafluoroethylene)-based polymer inclusion membrane using bifunctional ionic liquid extractant for Cr(VI) transport Industrial and Engineering Chemistry Research 51 (6) , pp. 2714-2722, 2012.

Inhibition vs. enhancement of the nitrate-induced phototransformation of organic substrates by the OH scavengers bicarbonate and carbonate, Water Research 43, 4718 – 4728, 2009. Autori: Davide Vione, Swapan Khanra, Simona Cucu Man, Pratap Reddy Maddigapu, Radharani Das, Cecilia Arsene, Romeo-Iulian Olariu, Valter Maurino, Claudio Minero.

237. Nissenon P, Dabdub D, Das R, et al., Evidence of the water-cage effect on the photolysis of NO₃⁻ and FeOH₂⁺ Implications of this effect and of H₂O₂ surface accumulation on photochemistry at the air-water interface of atmospheric droplets, ATMOSPHERIC ENVIRONMENT, 44 (38), 4859-4866, 2010.

Studies regarding groundwater quality at rural sites: 1. Estimation of the anthropic factor impact by complementary chemical analyses, Vione, D., Ravizzoli, B., Rinaldi, E., Pettinato, F., Arsene, C., Olariu, R.-I., REVISTA DE CHIMIE 60 (3), 237-240, 2009.

238. Adam, L., Puscasu, C., Constantin, N., Neacsu, S., Butu, M., Dinu, F.Gh. New procedures and methods in chemical treatment and centrifugal separation field in wastes components of oil industry, REVISTA DE CHIMIE , 60, (10), 1103-1106, 2009.

Dimethyl sulphide photo-oxidation at various NO₂ concentrations. 2. Investigation on particle formation, Arsene, C., Barnes, I., Olariu, R.I., Becker, K.H., REVUE ROUMANIE DE CHIMIE, 50, 485-490, 2005.

239. Holmes NS, A review of particle formation events and growth in the atmosphere in the various environments and discussion of mechanistic implications, ATMOSPHERIC ENVIRONMENT 41 (10): 2183-2201, 2007.