

Lista de Lucrări

I. Articole științifice publicate în extenso în reviste cotate Web of Science cu factor de impact

1. Marin S.L., G. Mardare (Balusescu), [C. Roman](#), I. Sandu, R.I. Olariu, C. Arsene, V. Vasilache, Authentication and Evaluation of the Technique of Minting the Romanian Coins of the 20th Century. I, Plastic Materials, 68 (9), <https://doi.org/10.37358/RC.17.9.5846>
2. Roman T., R-L. Asavei, N. Karkalos, [C. Roman](#), C. Vîrlan et al, Synthesis and adsorption properties of nanocrystalline ferrites for kinetic modeling development, International Journal of Applied Ceramic Technology, DOI: 10.1111/ijac.13091.
3. [Roman C.](#), Roman T., Arsene C., Bejan I.G., Olariu R.-I., Gas-phase IR cross-sections and single crystal structures data for atmospheric relevant nitrocatechols, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 256, XXXX, <https://doi.org/10.1016/j.saa.2021.120379>.
4. [Roman, C.](#), Arsene, C., Bejan, I. G., and Olariu, R.-I.: Investigations on the gas-phase photolysis and OH radical kinetics of nitrocatechols: Implications of intramolecular interactions on their atmospheric behavior, Atmos. Chem. Phys. Discuss. [preprint], <https://doi.org/10.5194/acp-2021-553>, in review, 2021.

II. Participări la manifestări științifice

Internaționale

1. Bejan I., Marin S.L., [Roman C.](#), Duncianu M., Arsene C., Olariu R.I., *Validation of a Newly Designed Simulation Chamber (ESC-Q-UAIC) Using Gas Phase Investigations on Aromatic Compounds*, 24th International Symposium on Gas Kinetics and Related Phenomena, 17-21 Iulie **2016**, York, Regatul Unit.
2. Olariu R.I., Marin S. L., [Roman C.](#), Bejan I.G., Arsene C., *Gas-phase kinetic study of OH radical reactions with selected alkylaromatic compounds*, Atmospheric Chemical and Biological Processes: Interactions and Impacts (ATMOCHEMBIO), 19-21 Iunie **2017**, Clermont-Ferrand, Franța, <https://atmochembio.sciencesconf.org/>, pp. 37, 2017.
<https://atmochembio.sciencesconf.org/>, pp. 37, 2017
3. [Roman C.](#), Arsene C., Bejan I., Olariu R.I., *Temperature dependence kinetic studies by using the newly thermostated ESC-Q-UAIC chamber*, The 25th International Symposium on Gas Kinetics and Related Phenomena, 22- 26 Iulie **2018**, Lille, Franța.
<https://gk18.sciencesconf.org/>
4. [Roman C.](#), Arsene C., Olariu R.I., Bejan I., *Gas phase kinetic study of the OH radical initiated oxidation of alkylfurans at atmospheric pressure and 298±2 K*, The 25th International Symposium on Gas Kinetics and Related Phenomena, 22- 26 Iulie **2018**, Lille, Franța.
<https://gk18.sciencesconf.org/>
5. [Roman C.](#), Arsene C., Olariu R.I., Bejan I., *Kinetic investigations of the OH-initiated oxidation of a series of alkylfurans at 298 K and atmospheric pressure*, The 6th Atmospheric Chemical Mechanisms Conference, 5-7 December **2018**, University of California, Davis, USA.
<https://acm.agrc.ucdavis.edu/>

6. Olariu R.I., Arsene C., Bejan I., [Roman C.](#), Rusu A. M., Galon (Negru) G., *Secondary Organic Aerosols Formation from the Gas Phase OH Radical Reaction with Catechol under NO_x Conditions*, EUROPEAN AEROSOL CONFERENCE - EAC 2019 25-30 August **2019** Gothenburg, Sweden.
<https://eac2019.se/>
7. [Roman C.](#), Arsene C., Olariu R.I., Bejan I., *Gas phase kinetic study for a series of methylated furans with chlorine atoms in atmospheric conditions*, 11th International Conference on Chemical Kinetics (ICCK 2019) 23 -27 June **2019**, Orleans, France.
<https://icck2019.sciencesconf.org/>

Naționale

1. [Roman C.](#), Bejan I., Olariu R.I., Arsene C., Gas phase infrared absorption cross sections for a series of aromatic compounds in the ESC-Q-UAIC Chamber, "Alexandru Ioan Cuza" University Days, Faculty of Chemistry Conference, Iasi, Romania, pp. 27, 27-28 October **2016**.
2. [Roman C.](#), Bejan I.G., Arsene C., Olariu R.I., *Gas-Phase FT-IR Kinetic Study of the OH Radicals with Phenol*, The 8th Scientific Session of Undergraduate, Master and PhD Students (SCSSMD), 30 Iunie **2017**, Iași, Romania, Abstract în Acta Chemica Iași, 25 (1), pp. 103, 2017.
<https://content.sciendo.com/view/journals/achi/25/1/article-p99.xml>
3. Olariu R.I., [Roman C.](#), Bejan I.G., Arsene C., *ESC-Q-UAIC chamber, a proper analytical tool for the estimation of infrared absorption cross sections for selected volatile organic compounds in the gas phase*, 20th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), 6-9 Septembrie **2017**, Poiana Brașov, România.
<http://riccce20.chimie.upb.ro/doc/conference-program.pdf>
4. [Roman C.](#), Bejan I.G., Arsene C., Olariu R.I., FT-IR gas-phase products study of OH radicals initiated photooxidation of phenol, Faculty of Chemistry Conference (IașiChem 2017), 26-28 Octombrie, **2017**, Iași, România, Abstract în Acta Chemica Iași, 25 (2), pp. 86, 2017.
<https://content.sciendo.com/view/journals/achi/25/2/article-p304.xml>
5. [Roman C.](#), Arsene C., Bejan I., Duncianu M., Tomas A., Riffault V., Olariu R.I., *Rate coefficient of gas-phase O₃ initiated oxidation of C5-C6 unsaturated aldehydes*, The 9th Scientific Session of Undergraduate, Master and PhD Students (SCSSMD), 29-30 iunie **2018**, Iași, Romania.
[http://www.chem.uaic.ro/files/File/2017-2018/scssmd2018/2018-program-scssmd-29-30-iunie\(3\).pdf](http://www.chem.uaic.ro/files/File/2017-2018/scssmd2018/2018-program-scssmd-29-30-iunie(3).pdf)
6. [Roman C.](#), Arsene C., Olariu R.I., Bejan I., *Rate coefficient of the gas-phase OH initiated oxidation of 2,5-dimethylfuran at 298±2 K*, The 9th Scientific Session of Undergraduate, Master and PhD Students (SCSSMD), 29-30 iunie **2018**, Iași, Romania.
<https://content.sciendo.com/view/journals/achi/25/2/article-p304.xml>
7. [Roman C.](#), Arsene C., Bejan I., Olariu R.I., *Rate coefficient of the gas-phase atmospheric OH radical initiated oxidation of 2-methoxyphenol*, The 35th National Chemistry Conference, 02-05 octombrie, **2018**, Căciulata, România.
http://conference.oltchim.ro/texte/program%20CNC_2018.pdf
8. [Roman C.](#), Arsene C., Olariu R.I., Bejan I., *Kinetic study of the gas-phase oh radical initiated oxidation of 2-methylfuran in atmospheric conditions*, The 35th National Chemistry Conference, 02-05 octombrie, **2018**, Căciulata, România.
http://conference.oltchim.ro/texte/program%20CNC_2018.pdf
9. Rusu A.M., [Roman C.](#), Arsene C., Bejan I.G., Olariu R.I., Gas chromatography-mass spectrometry (GC-MS) analysis of gaseous methylglyoxal after derivatization and solid phase extraction, The XXXV-th Romanian Chemistry Conference, Posters Section, Calimanesti-Caciulata, Valcea, Romania, 02-05 October, **2018**.

http://conference.oltchim.ro/texte/program%20CNC_2018.pdf

10. [Roman C.](#), Arsene C., Olariu R.I., Bejan I.G., Rate coefficients for the gas-phase OH radical initiated oxidation of 2,3,5- trimethylfuran and 2,3,4,5-tetramethylfuran in atmospheric conditions, Faculty of Chemistry Conference, IasiChem2018, Posters Section, Iasi, Romania, 25-26 October, **2018**.
<http://www.chem.uaic.ro/files/File/2018-2019/conferinta-facultatii-de-chimie/program-corectat.pdf>
11. Rusu A.M., [Roman C.](#), Arsene C., Bejan I.G., Olariu R.I., Kinetic study of the gas-phase reaction of OH radicals with 3-methyl-2-buten-1-ol at 298 K and atmospheric pressure, Faculty of Chemistry Conference, IasiChem2018, Posters Section, Iasi, Romania, 25-26 October, **2018**
<http://www.chem.uaic.ro/files/File/2018-2019/conferinta-facultatii-de-chimie/program-corectat.pdf>
12. [Roman C.](#), Arsene C., Olariu R.I., Camera de reacție ESC-Q-UAIC, un instrument analitic adecvat pentru studiul chimiei atmosferei, Conferința Națională a Școlilor Doctorale din Consorțiul Universitaria, **2018**, Editia I, Universitatea „Alexandru Ioan Cuza”, Iasi, Romania, 31 octombrie – 3 noiembrie.
<http://www.uaic.ro/wp-content/uploads/2018/07/Volum-rezumat-Conferinta-Doctoranzi.pdf>
13. Rusu A.M., [Roman C.](#), Arsene C., Olariu R.I., Constanta de viteză a reacției în fază gazoasă a 3-metil-2-buten-1-ol cu radicalii OH la 298 K și presiune atmosferică, Conferința Națională a Școlilor Doctorale din Consorțiul Universitaria, **2018**, Editia I, Universitatea „Alexandru Ioan Cuza”, Iasi, Romania, 31 octombrie – 3 noiembrie.
<http://www.uaic.ro/wp-content/uploads/2018/07/Volum-rezumat-Conferinta-Doctoranzi.pdf>
14. [Roman C.](#), Bejan I., Arsene C., Olariu R.I., *PTR-ToF-MS data interpretation for gas phase VOCs measurements using the ESC-Q-UAIC atmospheric simulation chamber facility*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 20th - 21st June **2019**, “Alexandru Ioan Cuza” University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>
15. [Roman C.](#), Bejan I., Arsene C., Olariu R.I., *FTIR and PTR-ToF-MS investigations of gas-phase major ring-retaining products from OH radical initiated reactions with alkylated phenols*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 20th - 21st June **2019**, “Alexandru Ioan Cuza” University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>
16. Rusu (Vasilache) A. M., [Roman C.](#), Roșca E., Arsene C., Bejan I., Olariu R.I., *Kinetic gas-phase reactions study of two methylbutenols with OH radicals and ozone under simulated atmospheric conditions*, Faculty of Chemistry Conference, IasiChem2019, 31th October -1st November, **2019**, Iasi, Romania.
<https://www.chem.uaic.ro/ro/manifestari/zu-2019.html>
17. [Roman C.](#), Roșca E., Arsene C., Olariu R.I., Bejan I., *Gas phase atmospheric chemistry of furan initiated by OH radicals: Kinetic, mechanism and secondary organic aerosol studies*, Faculty of Chemistry Conference, IasiChem2019, 31th October -1st November, **2019**, Iasi, Romania.
<https://www.chem.uaic.ro/ro/manifestari/zu-2019.html>
18. [Roman C.](#), Arsene C., Olariu R.I., *Secondary organic aerosol formation from the OH radical initiated photooxidation of methylated 1,2-dihydroxybenzenes in simulated NO_x controlled atmospheric conditions*, Conferința Națională a Școlilor Doctorale din Consorțiul Universitaria, **2019**, Editia II, 11-14 November, Universitatea de Vest din Timișoara, Romania.
<https://www.geo.uaic.ro/ro/programe-de-studii/scoala-doctorala-geostiinte/anunturi-pentru-doctoranzi/2161-conferinta-scolilor-doctorale-editia-a-ii-a-11-14-noiembrie-2019-universitatea-de-vest-din-timisoara-anunt-d>

19. [Roman C.](#), Roman T., Bejan I., Arsene C., Olariu R.I., *Nitrocatechols: Synthesis, characterization and gas phase kinetic results towards reaction with OH radicals*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 29th - 30th October **2020**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd-2020.html>
20. Roman T., [Roman C.](#), Ghercă D., *Crystal structure of 3-nitro and 4-nitrocatechol: Solid-state analysis of semi-volatile compounds*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 29th - 30th October **2020**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd-2020.html>
21. Măirean C. P., [Roman C.](#), Bejan I., Arsene C., Olariu R. I., *Gas-phase kinetic study of n-butyl acetate with the OH radicals using the ESC-Q-UAIC facilities chamber*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 29th - 30 October **2020**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd-2020.html>
22. Cernalevschi G., [Roman C.](#), Șoroagă L. V., Olariu R. I., Arsene C., *Fourier Transformed InfraRed spectroscopy applied in the analysis of active compounds from selected essential oils*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 29 - 30 October **2020**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd-2020.html>
23. [Roman C.](#), Arsene C., Bejan I.G., Olariu R.-I., *Revisited SAR parameters derived from newly determinations rate coefficients for the gas-phase reactions of OH radicals with a series of nitrocatechols*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 11 - 12 November **2021**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd2021.html>
24. [Roman C.](#), Arsene C., Bejan I.G., Olariu R.-I., *Investigations on the gas-phase photolysis and OH radical kinetics of nitrocatechols*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 11 - 12 November **2021**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd2021.html>
25. Apostol V., [Roman C.](#), Iancu C., Olariu R.-I., Arsene C., *Long-term monitorization of optical properties of tropospheric aerosols in the Iasi urban area, north-eastern Romania*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 11 - 12 November **2021**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd2021.html>
26. Rusu (Vasilache) A.-M., [Roman C.](#), Arsene C., Bejan I.G., Olariu R.-I., *OH radicals and ozone kinetic studies with some methyl-butenols under simulated atmospheric conditions*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 11 - 12 November **2021**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd2021.html>
27. Măirean C.-P., [Roman C.](#), Bejan I.G., Arsene C., Olariu R.-I., *Gas-phase kinetic study of some selected cis-3-hexenyl esters with the OH radicals*, Scientific communication session of undergraduate, master and PhD students (SCSSMD) 11 - 12 November **2021**, "Alexandru Ioan Cuza" University of Iași, Iași, Romania.
<https://www.chem.uaic.ro/ro/manifestari/ssmd2021.html>

III. Premii câștigate

1. 1st prize for the best poster at “Alexandru Ioan Cuza” University days, Chemistry department scientific session, Iași, Chemistry Dep., 27-28 October **2016**, Iași România. ([Roman C.](#), Bejan I., Olariu R.I., Arsene C., *Gas phase infrared absorption cross sections for a series of aromatic compounds in the ESC-Q-UAIC Chamber*)
2. 2nd prize for the best poster at the 8th Scientific Session of Undergraduate, Master and PhD Students (SCSSMD), 30th June-1st July **2017**, Iași, România ([Roman C.](#), I. Bejan, C. Arsene, R.I. Olariu, *Gas-Phase FT-IR Kinetic Study of the OH Radicals with Phenol*).
3. 2nd prize for the best presentation at the 9th Scientific Session of Undergraduate, Master and PhD Students (SCSSMD), Chemistry Dep., 29-30th June **2018**, Iași, România ([Roman C.](#), Arsene C., Bejan I., Duncianu M., Tomas A., Riffault V., Olariu R.I., *Rate coefficient of gas-phase O₃ initiated oxidation of C5-C6 unsaturated aldehydes*)
4. 1st prize for the best presentation at the 10th Scientific Session of Undergraduate, Master and PhD Students (SCSSMD), Chemistry Dep., 20th - 21st June **2019**, “Alexandru Ioan Cuza” University of Iași, Iași, Romania ([Roman C.](#), Bejan I., Arsene C., Olariu R.I., *FTIR and PTR-ToF-MS investigations of gas-phase major ring-retaining products from OH radical initiated reactions with alkylated phenols*).

Data

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