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L I S T A LUCRĂRILOR ȘTIINȚIFICE

A. Teza de doctorat

Investigations on the Gas Phase Atmospheric Chemistry of Nitrophenols and Catechols
Bergische Universität Wuppertal, Germany, 2007

B. Cărți și capitole în cărți publicate în ultimii 5 ani (2021-2025)

1.

C. Lucrări indexate ISI/BDI publicate în ultimii 5 ani (2021-2025)

1. *D'Souza Metcalf, J., Winkless, Ruth K., Mapelli, C., McElroy, C. R., Roman, C., Arsene, C., Olariu, R., Bejan, I., G., Dillon, T.J., Atmospheric breakdown kinetics and air quality impact of potential “green” solvents, the oxymethylene ethers OME3 and OME4, Atmospheric Chemistry and Physics, (2025) DOI: 10.5194/acp-25-9169-2025;
2. Mairean, Ciprian-Paul Roman, Claudiu; Arsene, Cecilia; Bejan, Iustinian-Gabriel; Olariu, Romeo-Iulian; Gas-Phase Ozone Reaction Kinetics of a Series of cis-3-Hexenyl Esters under Simulated Atmospheric Conditions, Journal of Physical Chemistry 129, 16, (2025) DOI: 10.1021/acs.jpca.5c01004
3. Mocanu, M., Bibiri, AD., Rusu, V.D. A Moroșanu, IG Bejan, Enhancing civic engagement with science: a comparative approach across European regions. Scientometrics 130, 447–468 (2025). <https://doi.org/10.1007/s11192-024-05198-7>
4. Rusu, A.-M., Roman, C., Bejan, I.G., Arsene, C., Olariu, R.I., Gas-Phase Reaction Kinetic Study of a Series of Methyl-Butenols with Ozone under Atmospherically Relevant Conditions Journal of Physical Chemistry A, 2024, 128(32), pp. 6745–6756
5. *Mairean, C.-P., Roman, C., Arsene, C., Bejan, I.-G., Olariu, R.-I., Gas-Phase Kinetics of a Series of cis-3-Hexenyl Esters with OH Radicals under Simulated Atmospheric Conditions, Journal of Physical Chemistry A, 2024, 128(30), pp. 6274–6285
6. Rusu Vasilache, A.-M., Roman, C., Bejan, I.G., Arsene, C., Olariu, R.I., Gas-Phase Kinetic Investigation of the OH-Initiated Oxidation of a Series of Methyl-Butenols under Simulated Atmospheric Conditions, Journal of Physical Chemistry A, 2024, 128(24), 4838–4849
7. Winiberg, F.A.F., Warman, W.J., Brumby, C.A., Boustead, G., Bejan, I. G., Speak, T. H., Heard, D. E., Stone, D., Seakins, P.W., Comparison of temperature-dependent calibration methods of an instrument to measure OH and HO₂ radicals using laser-induced fluorescence spectroscopy, Atmospheric Measurement Techniques, 2023, 16(19), pp. 4375–4390

8. Mapelli, Caterina; Schleicher, Juliette V.; Hawtin, Alex; Rankin, Conor D.; Whiting, Fiona C.; Byrne, Fergala; Mcelroy, C. Rob; Roman, Claudiu ; Arsene, Cecilia, ; Olariu, Romeo I. ; **Bejan, Iustinian G.**; Dillon, Terry J. Atmospheric breakdown chemistry of the new "green" solvent 2,2,5,5-tetramethyloxolane via gas-phase reactions with OH and Cl radicals, *Atmospheric Chemistry and Physics*, 2022, 22, 22, 14589-14602
9. Arsene, Cecilia; **Bejan, Iustinian G.**; Roman, Claudiu; Olariu, Romeo I.; Minella, Marco; Passananti, Monica; Carena, Luca; Vione, Davide, Evaluation of the Environmental Fate of a Semivolatile Transformation Product of Ibuprofen Based on a Simple Two-Media Fate Model, *Environmental Science and Technology*, 2022, 56, 22, 15650-15660.
10. Amariuca-Mantu, D., Mangalagiu, V., Bejan, I., Aricu, A., Mangalagiu, I.I., Hybrid Azine Derivatives: A Useful Approach for Antimicrobial Therapy, *Pharmaceutics* Open source preview, 2022, 14(10), 2026
11. Grira, A., Amarandei, C., Roman, C., Bejaoui, O., Aloui, N., El Dib, G., Arsene, C., Bejan, I. G., Olariu, R. I., Canosa, A., Tomas, A. Gas-Phase Ozone Reaction Kinetics of C5-C8 Unsaturated Alcohols of Biogenic Interest, *Journal of Physical Chemistry A*, 2022, 126(27), pp. 4413–4423
12. *Tovar, C.M., Barnes, I., Bejan, I.G., Wiesen, P., Kinetic study of the atmospheric oxidation of a series of epoxy compounds by OH radicals, *Atmospheric Chemistry and Physics*, 2022, 22(10), pp. 6989–7004
13. Roman, C., Arsene, C., Bejan, I.G., Olariu, R.I., Investigations into the gas-phase photolysis and OH radical kinetics of nitrocatechols: Implications of intramolecular interactions on their atmospheric behaviour, *Atmospheric Chemistry and Physics*, 2022, 22(4), pp. 2203–2219
14. 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*, 2022, 265, 120379
15. Illmann, N., Gibilisco, R.G., Bejan, I.G., Patroescu-Klotz, I., Wiesen, P., Atmospheric oxidation of α,β -unsaturated ketones: Kinetics and mechanism of the OH radical reaction, *Atmospheric Chemistry and Physics*, 2021, 21(17), pp. 13667–13686
16. *Tovar, C.; Haack, A.; Barnes, I.; Bejan, I.G.; Wiesen, P.; Experimental and theoretical study of the reactivity of a series of epoxides with chlorine atoms at 298 K, *Physical Chemistry Chemical Physics*, 9, 23, (2021) 5176-5186, doi.org/10.1039/D0CP06033J.

D. Lucrări publicate în ultimii 5 ani (2021-2025) în reviste și volume de conferințe cu referenți (neindexate)

- Reviste

1.

- Selecție cu maximum 20 lucrări în volume de conferințe

1. Bejan Iustinian Gabriel, Secondary Organic Aerosol formation from the Aromatic Hydrocarbon Precursors, WeBIOPATR 2025 the 10th International WEBIPATR workshop&conference Particulate matter: Research and Management, 26th-28-th November 2025, Belgrade, Serbia
2. Iilca-Elena GRIGORESCU, Bogdan PINTILIOAIE, Claudiu ROMAN, Cecilia ARSENE, Romeo I. OLARIU, Iustinian G. BEJAN: Preliminary Investigations into the Development of Novel Electrochemical Air Quality Sensors, International Conference "Students for Students" XXI Edition, Cluj-Napoca, Romania, 9th-13th of April 2025

3. Eduard-Andrei ASANDEI, Iustinian Gabriel BEJAN, Spectroscopic Characterization of Biomass Burning Composition: UV-VIS Investigations of Nitroaromatic Compounds IasiCHEM 2025 Faculty of Chemistry Conference, Iasi, Romania, 30th Oct-31st Oct 2025 Iasi, Romania
4. Andrei CRISAN, Claudiu ROMAN, Cecilia ARSENE, Romeo-Iulian OLARIU, Iustinian-Gabriel BEJAN, Gas-phase kinetics of the OH radical initiated oxidation of 2-ethylnitrobenzene, Sesiunea de Comunicări Științifice a Studenților, Masteranzilor și Doctoranzilor CHIMIA – FRONTIERĂ DESCHISĂ SPRE CUNOAȘTERE Ediția a XVI-a 19 Iunie 2025
5. D'Souza Metcalf, J., Winkless, R., Roman, C., Raymond, S., Arsene, C., Olariu, R., Sherwood, J., Bejan, I., and Dillon, T.: The Air Quality Impacts of the Bio-Based Solvent Cyrene, EGU General Assembly 2025, Vienna, Austria, 27 Apr–2 May 2025, EGU25-4097, <https://doi.org/10.5194/egusphere-egu25-4097>, 2025
6. Raymond, S. U., D'Souza Metcalf, J., Roman, C., Arsene, C., Olariu, R., Sneddon, H., Bejan, I., and Dillon, T.: Air Quality Impact of a “Green” Solvent – Ethyl Lactate , EGU General Assembly 2025, Vienna, Austria, 27 Apr–2 May 2025, EGU25-6459, <https://doi.org/10.5194/egusphere-egu25-6459>, 2025.
7. Mocanu Rares, Movila, Laurentiu, Roman Claudiu, Arsene Cecilia, Olariu Romeo, Bejan Iustinian, OH initiated degradation of hydroxyl aromatic compounds in atmosphere, 20th International conference Students for students, 17-21 April 2024, Cluj-Napoca, Romania
8. Movila, Laurentiu, Mocanu Rares, Illmann Niklas, Klotz-Patroescu, Iulia, Wiesen Peter, Bejan Iustinian, Kinetic study of the gas-phase reactions of OH radicals with furfuryl alcohols, 20th International conference Students for students, 17-21 April 2024, Cluj-Napoca, Romania
9. J. D. D'Souza Metcalf, J.Sherwood, C. Mapelli, R. Winkless, C. Roman, C. Arsene, R.-I. Olariu, C. R. McElroy, I. G. Bejan, T. J. Dillon, Atmospheric Degradation of New “Green” Solvents, 27th International Symposium on Gas Kinetics and Related Phenomena – 14-18 July 2024, GK2024 Leeds,
10. C. Roman, C. Arsene, R.-I. Olariu, I. G. Bejan, , Atmospheric chemistry of furans initiated by OH radicals, 27th International Symposium on Gas Kinetics and Related Phenomena – 14-18 July 2024, GK2024 Leeds,
11. Movila, Laurentiu, Mocanu Rares, Illmann Niklas, Klotz-Patroescu, Iulia, Wiesen Peter, Bejan Iustinian, Kinetic study of the gas-phase reactions of OH radicals and O₃ with furfuryl alcohols, 27th International Symposium on Gas Kinetics and Related Phenomena – 14-18 July 2024, GK2024 Leeds,
12. Claudiu Roman, Cecilia Arsene, Iustinian Gabriel Bejan, Romeo Iulian Olariu: Multi-referential relative kinetic methods vs pseudo-first method for assesing the gas-phase ozonolysis of unsaturated volatile in environmental sciences, National Conference of Chemistry, XXXVII edition, Targoviste, Romania
13. C. Roman, Negru G., Nita C., Arsene C., Bejan I, Olariu, R.I., Study of the atmospheric degradation of selected organic solvents, , IasiCHEM 2024 Faculty of Chemistry Conference, Iasi, Romania, 31st Oct-01st Nov 2024 Iasi, Romania
14. Movila, Laurentiu, Mocanu Rares, Illmann Niklas, Klotz-Patroescu, Iulia, Wiesen Peter, Bejan Iustinian, Gas-phase kinetic investigations for the OH radical initiated oxidation of the furfuryl

- alcohol series, Sesiunea de Comunicări Științifice a Studenților, Masteranzilor și Doctoranzilor CHIMIA – FRONTIERĂ DESCHISĂ SPRE CUNOAȘTERE Ediția a XV-a 27 Iunie 2024
15. Iustinian Bejan, Atmospheric Chemistry of Furans, ACTRIS atmospheric simulation chamber community workshop, 18-19th March 2024, Wuppertal, Germany
 16. Iustinian G, Bejan and John C. Wenger, Secondary Organic Aerosol Formation from Chemical Degradation of Aromatic Compounds in Urban Atmosphere, The 9th International WeBIOPATR WORKSHOP AND CONFERENCE, PARTICULATE MATTER: RESEARCH AND MANAGEMENT - WeBIOPATR2023, Belgrade, Serbia, 28th November - 01st December 2023
 17. Iustinian Bejan, Laurentiu Movila, Niklas Illmann, Iulia Patroescu-Klotz and Peter Wiesen: Gas-phase kinetic and degradation mechanism of the OH radical initiated oxidation of 2-methylstyrene, International Conference of Physical Chemistry, ROMPHYSICHEM 17, Bucuresti, Romania, 25th-27th of September 2023
 18. Laurentiu Movila, Claudiu Roman, Cecilia Arsene, Romeo Iulian Olariu and Iustinian Gabriel Bejan: Gas-phase kinetic studies on the OH radical initiated oxidation of 2- and 4-nitrotoluene, International Conference „Students for Students” XIX Edition, Cluj-Napoca, Romania, 26th-30th of April 2023
 19. Claudiu Roman, Cornelia Amarandei, Alina Giorgiana Negru, Cecilia Arsene, Iustinian Gabriel Bejan, Alexandre Tomas and Romeo Iulian Olariu: The atmospheric fate of a gaseous transformation product of limonene, IasiCHEM 5-MIT 2023 Faculty of Chemistry Conference, Iasi, Romania, 26th-27th of October 2023
 20. RAREȘ-GEORGIAN MOCANU, CLAUDIU ROMAN, CECILIA ARSENE, ROMEO IULIAN OLARIU, IUSTINIAN GABRIEL BEJAN, Gas-phase kinetic study of 3-hydroxybenzaldehyde with OH radicals under simulated atmospheric conditions, Sesiunea de Comunicări Științifice a Studenților, Masteranzilor și Doctoranzilor CHIMIA – FRONTIERĂ DESCHISĂ SPRE CUNOAȘTERE Ediția a XIV-a 23 Iunie 2023

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