

## CURRICULUM VITAE

**First name:** LUCIAN-OCTAV

**Surname:** COPOLOVICI

**Born:** August 13, 1976, Turda, Romania

**Marital status:** Married (with Dr. Dana Copolovici – one child)

**Citizenship:** Romanian

**Address:** Savarsin, 174/8, Arad, Romania

**Tel:** 0040745259816

**FAX:** 003727313738

**E-mail:** [lucian.copolovici@emu.ee](mailto:lucian.copolovici@emu.ee)



### **Education:**

**B.Sc.** (June 1998) in Physical Chemistry, Faculty of Chemistry and Chemical Engineering, “Babes-Bolyai” University, Cluj-Napoca, Romania, (9.33 out of 10).

Title of the diploma thesis: “Li<sup>+</sup> Intercalation in Graphite Anodes” (10 out of 10).

**M.Sc.** Applied Electrochemistry, Faculty of Chemistry and Chemical Engineering, “Babes-Bolyai” University, Cluj-Napoca, Romania (10 out of 10).

Title of the Master thesis: “Kinetic Methods. Multicomponent Determination” (10 out of 10)

**Ph.D.** in Chemistry “Babes-Bolyai” University, Cluj-Napoca, Romania,

### **Defended on 12.12.2003**

Ph.D. thesis: “Kinetic Methods for Determination of Organic Compounds in Waters”.

### **Experience:**

**2012-present** Senior Researcher II, Institute of Technical and Natural Sciences Research Development of Aurel Vlaicu University, Arad, Romania,

**2011-present** Senior Researcher, Department of Plant Physiology, Estonian University of Life Science, Tartu, Estonia

**2008-2011** Researcher, Department of Plant Physiology, Estonian University of Life Science, Tartu, Estonia

**2007- 2008** Exceptional researcher, Estonian University of Life Science, Tartu, Estonia

**2006- 2007** Post-doctoral researcher at Department of Inorganic Chemistry, Faculty of Chemistry and Chemical Engineering, “Babes-Bolyai” University, Cluj-Napoca, Romania.

**2005-2006** Post-doctoral researcher at Ghent University, Department of Analytical Chemistry, Institute of Nuclear Science, Ghent, Belgium.

**2004-2005** Researcher in the Marie Curie Research and Training Network “ISONET”, Department of Plant Physiology, Institute of Molecular and Cell Biology, Tartu, Estonia.

**1999-2003** Ph.D. student at Department of Physical Chemistry, Faculty of Chemistry and Chemical Engineering, “Babes-Bolyai” University, Cluj-Napoca, Romania.

### **Hands-on experience**

Spectrometry (UV/VIS, IR, diode array spectrophotometer), potentiometry, sensors, gas chromatography (FID, MS), ionic chromatography, liquid chromatography, PTR-MS, NMR, Schlenk techniques, gas -exchange techniques.

### **Research focus**

- ❖ Plant stress ecophysiology and VOC emission
- ❖ Analytical methods development for organic compounds and pharmaceutical products
- ❖ Enzymatic and redox reactions (mechanism and kinetic studies)

### **Research Stays:**

April 2002 - May 2002, Veszprem University, Department of General and Inorganic Chemistry, Hungary, Prof. Dr. Attila Horvath

September 2004, Centro di Ecologia Alpina, Monte Bondone, Italy

November 2004, Unitat Ecofisiologia CSIC-CEAB-CREAF, Center for Ecological Research and Forestry Applications (CREAF), Universitat Autònoma de Barcelona, Bellaterra (Barcelona), Spain, Prof. Dr. Josep Penuelas

May-June 2006, Department of Plant Physiology, Institute of Molecular and Cell Biology, Tartu, Estonia, Prof. Dr. Ulo Niinemets

Octomber-November 2006, Departments of Inorganic and Analytical Chemistry, University of Cagliari, Italy, Prof. Dr. Vito Lippolis

### **Projects:**

Grant SPO for Est European researchers from Belgium Government

Grant European Science Foundation *Determination of monoterpane physico-chemical characteristics*, Reference number 815

Grant European Science Foundation *Sesquiterpene emission from plants induced by stress conditions*, Reference number 1838

Estonian Science Foundation *Physico-chemical traits of and signalling by volatile compounds*  
Grant JD 101

Grant PNII-RU-TE-2011-3-0022 *Emission of volatile compounds from Betulacea and Fagaceae elicited during biotic and abiotic stresses*

**Projects member:**

1. *Kinetic methods for organic compounds and heavy metal, kinetic studies for substances with biological activities and oxidation process.* Grant CNCSIS, 2000-2002, Master of the project: Prof. Dr. Ioan Baldea
2. *Polymethinicdyes. Kinetic and spectral studies,* Grant CNCSIS 2002-2004. Master of the project: Prof. Assoc. Dr. Ioan Panea
3. *Kinetic studies used in hydrocarbons oxidation and kinetic methods,* Grant CNCSIS 2001. Master of the project: Lect. Dr. Claudia Muresanu
4. *Chemical systems for analytical application,* Grant CNCSIS 2001-2003. Master of the project: Lect. Dr. Alexandra Rustoiu-Csavdari
5. *Kinetic-mathematics modelling of complex reactions,* Grant CNCSIS, 2002-2004, Master of the project: Prof. Dr. Ioan Bâldea
6. *Characterisation and sources of carbonaceous atmospheric aerosols,* SPO contract no. EV/02/11A, Master of the project: Prof. Dr. Willy Maenhaut
7. *Organomercury, organoselenium and organotellurium hypervalent compounds - synthesis, structural characterisation in solution and solid state, reactivity,* Project CEEX 19, mod 2, - postdoctoral researcher, 2006-2008, Master of the project: Prof. Dr. Cristian Silvestru
8. *Functional relations between plant structure and physiological activity,* Science Foundation Grant, 2005 – 2007, Master of the project: Dr. Katja Huve
9. *Constitutive and induced emission of volatile isoprenoids in forest trees,* Estonian Science Foundation Grant 7645, 2008 – 2011, Master of the project: Prof. Dr. Ulo Niinemets
10. *Plant stress ecophysiology,* Estonian Science Foundation Grant, 2007 – 2012, Master of the project: Prof. Dr. Ulo Niinemets
11. *Induction of plant VOC emission by biotic and abiotic stresses and consequences for community ecology: a multidisciplinary approach (A-BIO-VOC),* EUROCORES / EUROVOL, 2011-2014, Master of the project: Prof. Dr. Ulo Niinemets

## **PROFESSIONAL MEMBERSHIP**

Romanian Chemical Society (until 2000)

### **Participation at International Conferences (personally attended):**

- ❖ The 10<sup>th</sup> Conference on Physical Chemistry, 25-29 September, Iasi, Romania, 2000
- ❖ 7<sup>th</sup> International Symposium on Analytical Chemistry, Bucuresti, 26-29 septembrie 2001
- ❖ 3rd International Conference of the Chemical Societies of the south-eastern European Countries on "*Chemistry in the New Millennium - an Endless Frontier*", Bucureşti, Romania 22.09-25.09 2002
- ❖ 11<sup>th</sup> Physical Chemistry Conference (ROMPHYSCHM 11), 2.09-5.09, Timișoara, Romania, 2003
- ❖ 13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering, 16.09-20.09, Bucuresti, Romania, 2003
- ❖ COST Conference, 20.05, Cluj-Napoca, Romania, 2004
- ❖ ISONET-VOCBAS Summer school, 20-24.09, Pieve-Tesino, Italy, 2004
- ❖ European Aerosol Conference, 29.08 – 2.09, Ghent, Belgium, 2005
- ❖ VOCBAS workshop, 13.06-15.06, Julich, Germany, 2006
- ❖ Tenth International on the Chemistry of Selenium and Tellurium, 21.06-29.06 Lodz, Poland, 2007
- ❖ XVII EuChemMS Conference on Organometallic Chemistry, 1.09-6.09 Sofia, Bulgaria, 2007
- ❖ 1<sup>th</sup> Helsinki – Tartu workshop, 10.12-12.12, Hùtyala, Finland, 2007
- ❖ ESF VOCBAS Science Conference, 14.01 – 17.01, Taagepera, Estonia, 2009
- ❖ Plant Abiotic Stress-from signaling to development, 2<sup>nd</sup> meeting of INPAS, 14.05-17.05, Tartu, Estonia, 2009
- ❖ Environmental Legislation, Safety Engineering and Disaster Management, 25.10 – 27.10, Cluj-Napoca, 2012.
- ❖ Centenary of Education in Chemical Engineering, 28-30 noiembrie, Iasi, 2012

### **Participation at National Conferences (personally attended):**

- ❖ Conferinta Internationala de Chimie si Inginerie Chimica, 30.09-2.10, Bucuresti, 1999
- ❖ 30 de ani învățământ de inginerie chimică, Cluj-Napoca, 6-8 septembrie 2001
- ❖ A XII-a Conferinta Internationala de Chimie si Inginerie Chimica, 13.09-15.09, Bucuresti, 2001
- ❖ Al XXVII-lea Simpozion National de Chimie, 23 -26 octombrie, Calimanesti-Caciulata, 2002
- ❖ A III-a Conferință a Facultății de Chimie Industrială, 13.11-15.11, Iași, 2002

- ❖ Conferința Universității de Nord, 08.05-09.05, Baia Mare, 2003
- ❖ 10<sup>th</sup> Edition of Academic Days, 24.05-25.05, Timisoara, Romania, 2007
- ❖ *International Symposium Research and Education in Innovation Era, 4th Edition*, 08.11-09.11, Arad, 2012

**Other Experience:**

- I was supervisor of five bachelor and two master theses in chemical physics, one bachelor thesis in plant physiology.
- Course leader: “Methods and analytical techniques used for measuring Biogenic Volatile Organic Compounds (BVOC) emission from plants”- ATMOSPHERE-BIOSPHERE STUDIES (ABS) master studies
- Course certificate: The new global research system – challenges facing young supervisors of today, Sagadi, Estonia, 16-19 September 2008
- Referee for Romanian National University Research Council and Bulgaria Science Foundation; reviewer for “Annals of Forest Science”, “Environmental Pollution”, “Tree Physiology”, “Atmospheric Environment”, “Biogeosciences”, “PNAS”

**List of Publications:**

- a) Articles in ISI international journals
1. Lucian Copolovici, Ioan Bâldea, Kinetic Determination of Aromatic Amines at Millimolar Level, *Anal. & Bioanal. Chem.*, **2002**, 374, 13-16 (I.F. = 3.778).
  2. Simona Bungău, Ioan Bâldea, **Lucian Copolovici**, Determinarea acidului ascorbic din fructe folosind o metodă de tip Landolt (Ascorbic acid determination from fruits using Landolt type methods), (*in Romanian*), *Rev. Chim.*, **2002**, 54(3), 213-216 (I.F. = 0.599).
  3. Claudia Muresanu, **Lucian Copolovici**, Kinetic Method for Acetylsalicylic Acid Determination Based on its Inhibitory Effect Upon Catalytic Decomposition of H<sub>2</sub>O<sub>2</sub>, *Anal. & Bioanal. Chem.*, **2004**, 318, 1868-1872 (I.F. = 3.778).
  4. Simona Bungău, **Lucian Copolovici**, Ioan Bâldea, Ildiko Szabo, Determinarea metioninei printr-o metodă de oxidare cu permanganat din produse farmaceutice, (Methionine Determination Using an Oxidation Method from Drugs), (*in Romanian*), *Rev. Chim.*, **2004**, 55(11), 886-888 (I.F. = 0.599).

5. Simona Bungău, **Lucian Copolovici**, Ioan Bâldea, Vasilica Merca, Determinarea piridoxinei din produse farmaceutice utilizând două metode cinetice, (Pyridoxine Determination Using Two Kinetic Methods from Drugs), (*in Romanian*), *Rev. Chim.*, **2004**, 55(12), 945-948 (I.F. = 0.599).
6. **Lucian Copolovici**, Simona Bungău, Felicia Drăgan, Determination of Acetylsalicylic Acid from Drugs Using Kinetic Methods, *Rev. Chim.*, **2005**, 56(4), 374-377 (I.F. = 0.552).
7. Claudia Muresanu, **Lucian Copolovici**, and Florina Pogacean, Kinetic Method for *para*-nitrophenole Determination Based on an Enzyme Catalysed Reaction, *Central European Journal Chemistry*, **2005**, 3(4), 592-604 (I.F. = 0.991).
8. **Lucian Copolovici**, Iolanda Filella, Joan Llusià, Ülo Niinemets, Josep Peñuelas, The capacity for thermal protection of photosynthetic electron transport varies for different monoterpenes in *Quercus ilex*, *Plant Physiology.*, **2005**, 139, 485-496 (I.F. = 6.535).
9. **Lucian Copolovici**, Ülo Niinemets, Temperature dependencies of Henry's law constants and octanol/water partition coefficients for key plant volatile monoterpenoids, *Chemosphere*, **2005**, 61, 1390-1400 (I.F. = 3.206).
10. **Lucian Copolovici**, Ülo Niinemets, Effects of low-molecular organic compounds, pH and salt content on partitioning equilibrium of monoterpene at water -air and water- lipid phases interfaces, *Chemosphere*, **2007**, 69, 621-629 (I.F. = 3.206).
11. **Lucian Copolovici**, Cristian Silvestru, Vito Lippolis, Richard A. Varga, Iodidomesityltellurium(II) iodido-trimesitylditellurium(II)(Te-Te), *Acta Crystallogr.*, **2007**, C63, o528-o529, (I.F. = 0.518).
12. **Lucian Copolovici**, Richard A. Varga, Vito Lippolis, Cristian Silvestru, Bis(tetraphenyl-imido-diphosphine acid) tri-iodide, *Acta Crystallogr.*, **2007**, E63, o4206-o4207, (I.F. = 0.347).
13. **Lucian Copolovici**, Vilma Bojan, Cristian Silvestru, Richard A. Varga, 1-Bromo-2,6-bis(*N*-methylpiperazinylmethyl)benzene, *Acta Crystallogr.*, **2007**, E63, o4323, (I.F. = 0.347).
14. **Lucian Copolovici**, Vilma Bojan, Cristian Silvestru, Richard A. Varga, 1-Bromo-2,6-bis(*N*-morpholinylmethyl)benzene, *Acta Crystallogr.*, **2007**, E63, o4570, (I.F. = 0.347).
15. **Lucian Copolovici**, Ioan Baldea, Kinetics of the Phenol Oxidation by Permanganate in Acidic Media, *Rev. Roum. Chem.*, **2007**, 52, 1045 – 1050 (I.F. = 0.418).
16. Steffen Noe, **Lucian Copolovici**, Ülo Niinemets, Evi Vaino, Storage of limonene in leaves is positively correlated to the leaves lipid content, *Plant Biology*, **2008**, 10, 129 - 137 (I.F. = 2.395).

17. Bahtijor Rasulov, **Lucian Copolovici**, Agu Laisk, Ulo Niinemets, Postillumination isoprene emission: in vivo measurements of dimethylallyldiphosphate pool size and isoprene synthase kinetics in aspen leaves, *Plant Physiology.*, **2009**, 149, 1609-1618 (I.F. = 6.535).
18. Ivan Kourtchev, **Lucian Copolovici**, Magda Claeys, Willy Maenhaut, Characterization of atmospheric aerosols at a forested site in Central Europe, *Environmental Science & Technology*, **2009**, 43, 4665-4671 ( I.F. = 5.228).
19. **Lucian Copolovici**, Astrid Kannaste, Ulo Niinemets, Gas chromatography-mass spectrometry method for determination of monoterpene and sesquiterpene emissions from stressed plants, *Studia Univ. Babes-Bolyai, Chem.*, **2009**, 54, 329-333 (I.F. = 0.129).
20. **Lucian Copolovici**, Ulo Niinemets, Flooding induced emissions of volatile signalling compounds in three tree species with differing waterlogging tolerance, *Plant Cell & Environment*, **2010**, 33, 1582-1594 ( I.F. = 5.215).
21. Merje Toome, Pille Randjärv, **Lucian Copolovici**, Ülo Niinemets, Katrin Heinsoo, Anne Luik, Steffen M. Noe, Leaf rust induced volatile organic compounds signalling in willow during the infection, *Planta*, **2010**, 232(1), 235-243 ( I.F. = 3.000).
22. **Lucian Copolovici**, Ioan Baldea, Kinetics of the phenol oxidation by permanganate in acidic media. The intermediate oxidized species 4,4'-biphenoquinone evolution, *Studia Univ. Babes-Bolyai, Chem.*, **2010**, 55(2), 155-167 (I.F. = 0.129).
23. **Lucian Copolovici**, Ioan Baldea, Alexandra Csavdari, Determination of aromatic amines and phenols by kinetic methods based on Landolt effect, *Studia Univ. Babes-Bolyai, Chem.*, **2010**, 55(1), 103-111 (I.F. = 0.129).
24. Ulo Niinemets, **Lucian Copolovici**, Katja Huve, High within-canopy variation in isoprene emission potentials in temperate trees: implications for predicting canopy-scale isoprene fluxes, *Journal of Geophysical Research – Biogeosciences*, **2010**, 115, G04029 (I.F. = 3.021).
25. **Lucian Copolovici**, Astrid Kannaste, Triinu Remmel, Vivian Vislap, Ulo Niinemets, Volatile emissions from *Alnus Glutionosa* induced by herbivory are quantitatively related to the extent of damage, *Journal of Chemical Ecology*, **2011**, 37, 18-28 (I.F. = 2.657).
26. Steffen M. Noe, Veljo Kimmel, Katja Huve, **Lucian Copolovici**, Miguel Portillo-Estrada, Ulle Puttsepp, Kalev Jagiste, Ulo Niinemets, Lukas Hortnagl, Georg Wohlfahrt, Ecosystem-scale biosphere–atmosphere interactions of a hemiboreal mixed forest stand at Jarvselja, Estonia, *Forest Ecology and Management*, **2011**, 262, 71-81. (I.F. = 2.487).

27. Ülo Niinemets, Uwe Kuhn, Peter C. Harley, Michael Staudt, Almut Arneth, Alessandro Cescatti, Paolo Ciccioli, **Lucian Copolovici**, Chris Geron, Alex Guenther, Jürgen Kesselmeier, Manuel T. Lerdau, Russell K. Monson, Josep Peñuelas, Estimation of isoprenoid emission factors from enclosure studies: measurements, data processing, quality and standardized measurement protocols, *Biogeosciences*, **2011**, 8, 2209-2246 (I.F. = 3.859).
28. Z. Sun, **Lucian Copolovici**, Ulo Niinemets, Can the capacity for isoprene emission acclimate to environmental modifications during autumn senescence in temperate deciduous tree species *Populus tremula?*, *Journal of Plant Research*, **2012**, 125, 263-274 (I.F. = 1.749).
29. **Lucian Copolovici**, Astrid Kannaste, Leila Pazouki, Ulo Niinemets, Emissions of green leaf volatiles and terpenoids from *Solanum lycopersicum* are quantitatively related to the severity of cold and heat shock treatments, *Journal of Plant Physiology*, **2012**, 169, 664-672 (I.F. = 2.791).
30. Steffen Noe, Katja Huve, Ulo Niinemets, **Lucian Copolovici** Seasonal variation in vertical volatile compounds air concentrations within a remote hemiboreal mixed forest, *Atmospheric Chemistry and Physics*, **2012**, 12, 3909–3926 (I.F. = 5.520).
31. Zhihong Sun, Ülo Niinemets, Katja Hüve, Steffen M. Noe, Bahtijor Rasulov, **Lucian Copolovici**, Vivian Vislap Enhanced isoprene emission capacity and altered light responsiveness in aspen grown under elevated atmospheric CO<sub>2</sub> concentration, *Global Change Biology*, **2012**, 18, 3423–3440 (I.F. = 6.862).
32. Eve Veromann, Merje Toome, Astrid Kännaste, Riina Kaasik, **Lucian Copolovici**, Jaak Flink, Gabriella Kovács, Lea Narits, Anne Luik, Ülo Niinemets, Effects of nitrogen fertilization on insect pests, their parasitoids, plant diseases and volatile organic compounds in *Brassica napus*, *Crop Protection*, **2013**, 43, 79-88 (I.F. = 1.402).
33. Ocsana Opriş, Florina Copaciu, Maria Loredana Soran, Dumitru Ristoiu, Ülo Niinemets, **Lucian Copolovici**, Influence of nine antibiotics on key secondary metabolites and physiological characteristics in *Triticum aestivum*: leaf volatiles as a promising new tool to assess toxicity, *Ecotoxicology and Environmental Safety*, **2013**, 87, 70–79 (I.F. = 2.294).
34. Florina Copaciu, Ocsana Opriş, Virginia Coman, Dumitru Ristoiu, Ülo Niinemets, **Lucian Copolovici**, Diffuse water pollution by anthraquinone and azo dyes in environment importantly alters foliage volatiles, carotenoids and physiology in wheat (*Triticum aestivum*), *Water Air Soil Pollution*, **2013**, 224, 1478 (I.F. = 1.625).
35. Astrid Kännaste, **Lucian Copolovici**, Leila Pazouki, Marina Suhhorutšenko, Ülo Niinemets, Highly variable chemical signatures over short spatial distances among Scots pine (*Pinus sylvestris*) populations, *Tree Physiology*, (I.F. = 2.876), *in press*.

36. Magdalena Tomás, Jaume Flexas, **Lucian Copolovici**, Jeroni Galmés, Lea Hallik, Hipólito Medrano, Miquel Ribas-Carbó, Tiina Tosens, Vivian Vislap, Ülo Niinemets, Importance of leaf anatomy in determining mesophyll diffusion conductance to CO<sub>2</sub> across species: quantitative limitations and scaling up by models, *Journal of Experimental Botany*, (I.F. = 5.364), *in press*.

Note: I.F. = Impact factor according with ISI Thompson Citation Report 2011

**b) Articles in other national journals**

1. Alexandra Rustoiu-Csavdari, Ioan Baldea, **Lucian Copolovici**, Dana Mihai, The Hydrogen Peroxide- Iodide Reaction in Kinetic Chemical Analysis. An attempt for multicomponent calibration, *Studia Univ. Babes-Bolyai, Chem.*, **2000**, 45, 119-138.
2. Simona Bungău, Ioan Bâldea, **Lucian Copolovici**, Determination of some aminoacids from pharmaceutical products by using a kinetic method based on a clock Landolt-type system of redox reactions, *Studia Univ. Babes-Bolyai, Chem.*, **2002**, 47, 75-84.
3. Simona Bungău, **Lucian Copolovici**, Gavril Niac and Ioan Baldea, Kinetic Determination of B<sub>1</sub>, B<sub>2</sub> and B<sub>6</sub> vitamins, *Studia Univ. Babes-Bolyai, Chem.*, **2002**, 47, 141-148.
4. **Lucian Copolovici**, Claudia Muresanu, and Florina Fagadar, Kinetic Method for Hydroxylamine Determination based on an Enzyme Catalysed Reaction, *Bull. Inst. Polit. Iași*, **2003**, 5, 184-189.
5. **Lucian Copolovici**, Ioan Baldea, Logarithmic Extrapolation Method for Kinetic Determination of Amines Mixtures, *Studia Univ. "Babes-Bolyai", Chemia*, **2003**, 48(2), 85-90.
6. **Lucian Copolovici**, Ioan Baldea, Logarithmic Extrapolation Method for Kinetic Determination, *Annals of West Univ. Timisoara, Ser. Chemistry*, **2003**, 12(3), 1605-1612.
7. Simona Bungau, **Lucian Copolovici**, Ioan Baldea, Vitamin C and Aspirin Kinetic Determination from Pharmaceutical Effervescent Forms without Separation, *Farmacia*, **2004**, 52(1), 83-89.
8. Simona Bungău, **Lucian Copolovici**, Ioan Baldea, Ildiko Szabo, Kinetic Methods for the Determination of Cysteine and Methionine without Initial Separation, *Farmacia*, **2004**, 55(4), 60-66.
9. Laurean Vlase, Ioan Baldea, Simion Leucuta, Liviu Rus and **Lucian Copolovici**, Kinetic study on omeprazole degradation at different pH values by using HPLC, *Studia Univ. "Babes-Bolyai", Chemia*, **2005**, 50(1-2), 169-173.

**c) Articles in Proceedings of international conferences**

1. A. Rustoiu-Csavdari, **L. Copolovici**, Z. Nagy, Possible Use of Artificial Neural Network in Tricomponent Calibration, Proc. *14<sup>th</sup> International Congress of Chemical and Process Engineering*, 27-31 August, Praha, Czech Republic, **2000** (on CD).
2. I. Kourtchev, **L. Copolovici**, W. Maenhaut and M. Claeys, Carboxylic and dicarboxylic acids in rural aerosols from K-puszta, Hungary. *Proceedings of the Seventh International Aerosol Conference (IAC 2006)*, St. Paul, Minnesota, USA, September 10-15, **2006**, Editors: P. Biswas, D.-R. Chen and S. Hering, p. 1105(published on CD-rom).

**d) Books**

1. Simona Bungau, Vasilica Merca, **Lucian Copolovici**, *Instrumental Analysis and Separation Methods* (in Romanian), Ed. Univ. Oradea, 228 p., **2004**, ISBN 973-613-489-X.
2. Simona Bungau, **Lucian Copolovici**, *Analytical Chemistry-Calitative Chemical Analyse*(in Romanian), Ed. Univ. Oradea, 230 p., **2005**, ISBN 973-613-804-6.
3. Felicia Drăgan, **Lucian Copolovici**, *Pharmaceutical Products Synthesis* (in Romanian), Ed. Focus, 184 p., **2005**, ISBN 973-87104-5-6.
4. Simona Bungau, **Lucian Copolovici**, *Theoretical and Practical Applications in Cantitative Analytical Chemistry* (in Romanian), Ed. Didactica si Pedagogica, 213 p., **2006**, ISBN 973-30-1622-5.
5. Simona Bungău, Delia Mirela Tiț, **Lucian Copolovici**, Eleonora Marian, *Theoretical and Practical Applications in Cantitative Analytical Chemistry* (in Romanian), *Second Edition*, Ed. Didactică și Pedagogică, 380 p., **2011**, ISBN 978-973-30-2910-6.

**f) Abstracts of Scientific conferences**

**(1)Conference Proceedings ISI Citation**

1. Z. Sun, Ulo Niinemets, **Lucian Copolovici**, **Foliar isoprene emission during autumn senescence in aspen (*Populus tremula*)**, 19th Annual VM Goldschmidt Conference Davos, Switzerland, Jun. 21, 2009, published in: *Geochimica et Cosmochimica Acta*, 73(13), A1295-A1295

**(2) International Conferences**

1. **Lucian Copolovici**, Ioan Baldea, **Determination of Phenol by Kinetic Methods**, The 10<sup>th</sup> Conference on Physical Chemistry, 25-29 September, Iasi, 2000, S10-PO5 (participant).

2. **Lucian Copolovici**, Ioan Baldea, **Kinetic Determination of Aromatic Amines at Millimolar Level**, *7th International Symposium on Analytical Chemistry*, Bucuresti, 26-29 septembrie 2001, P9 (*participant*)
3. **Lucian Copolovici**, Ioan Baldea, Alexandra Balc, **Determination of Aromatic Amines by Kinetic Methods**, *7th International Symposium on Analytical Chemistry*, Bucuresti, 26-29 septembrie 2001, P8 (*participant*)
4. Simona Bungău, Ioan Bâldea, **Lucian Copolovici**, **Kinetic Determination of Vitamines by Using Landolt-Type Reactions**, *3rd International Conference of the Chemical Societies of the South-Eastern European Countries on "Chemistry in the New Millennium - an Endless Frontier"*, Bucureşti, 22.09-25.09 2002, P144 (*participant*)
5. Claudia Mureşanu, **Lucian Copolovici**, Florina Făgădar, **Kinetics, mechanism and analytical applications of catalase catalyzed decomposition of H<sub>2</sub>O<sub>2</sub> in the presence of hydroxylamine**, *3rd International Conference of the Chemical Societies of the South-Eastern European Countries on "Chemistry in the New Millennium - an Endless Frontier"*, Bucureşti, 22.09-25.09 2002, P145 (*participant*)
6. **Lucian Copolovici**, Ioan Bâldea, **Kinetic determination of aromatic amines in mixture using a logarithmic extrapolation method**, *3rd International Conference of the Chemical Societies of the South-Eastern European Countries on "Chemistry in the New Millennium - an Endless Frontier"*, Bucureşti, 22.09-25.09 2002, P146 (*participant*)
7. Simona Bungău, **Lucian Copolovici** and Ioan Bâldea, **Kinetic Determination Methods for Ascorbic Acid by Using N-(1-naphthyl) Etilendiamine Hydrochloride**, *11<sup>th</sup> Physical Chemistry Conference (ROMPHYSCHM 11)*, 2.09-5.09, Timișoara, 2003, S10-P119 (*participant*)
8. Simona Bungău, **Lucian Copolovici** and Ioan Bâldea, **Kinetic Determination of para-aminobenzoic acid (H vitamin) By using Landolt-Type Reactions**, *11<sup>th</sup> Physical Chemistry Conference (ROMPHYSCHM 11)*, 2.09-5.09, Timișoara, 2003, S10-P120 (*participant*)
9. **Lucian Copolovici**, Claudia Muresanu and Florina Fagadar, **A New Kinetic Method For the Determination of Hydroxilamine Using an Oxygen Sensor**, *11<sup>th</sup> Physical Chemistry Conference (ROMPHYSCHM 11)*, 2.09-5.09, Timișoara, 2003, S10-P131 (*participant*)
10. **Lucian Copolovici**, Ioan Baldea, **Spectrophotometrical Kinetic Determination of β-naphtol at Millimolar Level**, *11<sup>th</sup> Physical Chemistry Conference (ROMPHYSCHM 11)*, 2.09-5.09, Timișoara, 2003, S10-P132 (*participant*)
11. Anca Molnar, Ioan Baldea, **Lucian Copolovici** and Simona Bungau, **Kinetics and Analytical Application of Oxidation of Thiamine by Permanganate in Acidic Media**, *13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering*, 16.09-20.09, Bucuresti, 2003, S3-P19 (*participant*)

12. Simona Bungău, **Lucian Copolovici** and Ioan Bâldea, **Determination of Ascorbic Acid and Acetylsalicylic Acid in Mixture**, *13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering*, 16.09-20.09, Bucuresti, 2003, S4-O2 (*participant*)
13. Claudia Muresanu, **Lucian Copolovici**, **Kinetic Method for Acetylsalicylic Acid Determination Based On its Inhibitory Effect Upon Catalytic Decomposition of H<sub>2</sub>O<sub>2</sub>**, *13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering*, 16.09-20.09, Bucuresti, 2003, S4-P08, (*participant*)
14. **Lucian Copolovici** Ioan Bâldea and Atilla Horvath, **Phenol Oxidation by Potassium Permanganate in Acidic Media. Kinetics and Analytical Application**, *13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering*, 16.09-20.09, Bucuresti, 2003, S4-P19 (*participant*)
15. Florina Fagadar, Ioan Baldea and **Lucian Copolovici**, **Kinetic Method For Phenol Determination Based on its Inhibitory Effect Upon Catalytic Decompositions of H<sub>2</sub>O<sub>2</sub>**, *13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering*, 16.09-20.09, Bucuresti, 2003, S4-P20 (*participant*)
16. **Lucian Copolovici**, **Physical-Chemical Characterization of VOC Emission**, *ISONET-VOCBAS Summer school*, 20-24.09, Pieve-Tesino (Italy), 2004 (*participant*)
17. **Lucian Copolovici**, Felicia Dragan, **Analytical Application of Atenolol Oxidation by Bichromate in Acidic Media**, *Advanced Spectroscopies on Biomedical and Nanostructured Systems*, 19-22 September, Cluj-Napoca, 2004
18. **Lucian Copolovici**, **Effects of low-molecular organic compounds and salt content on partitioning equilibrium of monoterpane at water – air and water- lipid phases interfaces**, *VOCBAS workshop*, Julich, Germany, 13-15 June 2006.
19. **Lucian Copolovici**, Vito Lippolis, Cristian Silvestru, **Synthesis and Characterization of New Compounds Containing the -Se-Se- Bridge**, *Tenth International on the Chemistry of Selenium and Tellurium*, Lodz, Poland, 21-29 June 2007 (*participant*)
20. **Lucian Copolovici**, Cristian Silvestru, Varga Richard, **Synthesis, characterization and crystal structures of new hypervalent organotellurium compounds**, *XVII EuChemMS Conference on Organometallic Chemistry*, 1.09-6.09 Sofia, Bulgaria, 2007, (*participant*)
21. Merje. Toome, Steffen Noe, **Lucian Copolovici**, **Emission of willow challenged with leaf rust fungus**, *ESF VOCBAS Science Conference*, 14.01 – 17.01, Taagepera, Estonia, 2009 (*participant*)
22. **Lucian Copolovici**, Irina Bichele, Ulo Niinemets, **LOx products emission from plants induced by stress conditions. A comparison between different species**, *ESF VOCBAS Science Conference*, 14.01 – 17.01, Taagepera, Estonia, 2009 (*participant*)

23. Irina Bichele, **Lucian Copolovici**, Ulo Niinemets, **The burst of volatile products of the lipoxygenase pathway is related to membrane damage and programmed cell death in leaves exposed to extreme high temperatures**, *ESF VOCBAS Science Conference*, 14.01 – 17.01, Taagepera, Estonia, 2009 (*participant*)
24. Andrea Ghirardo, **Lucian Copolovici**, Seffen Noe, Joerg-Peter Schnitzler, Ulo Niinemets, **BVOCs emission under chilling and hot stresses in poplar trees**, *ESF VOCBAS Science Conference*, 14.01 – 17.01, Taagepera, Estonia, 2009 (*participant*)
25. Zhihong Sun, **Lucian Copolovici**, Ulo Niinemets, **Foliar methanol and isoprene emissions during autumn senescence in aspen (*Populus tremula*)**, *ESF VOCBAS Science Conference*, 14.01 – 17.01, Taagepera, Estonia, 2009 (*participant*)
26. **Lucian Copolovici**, Ulo Niinemets, **Flooding induced emissions of volatile signaling compounds in species with differing waterlogging tolerance**, *Plant Abiotic Stress-from signaling to development, 2<sup>nd</sup> meeting of INPAS*, 14.05-17.05, Tartu, Estonia, 2009, p. 51 (*participant*)
27. Irina Bichele, **Lucian Copolovici**, Ulo Niinemets, **Heat shock induce membrane damage, volatiles emission of methanol and lipoxygenase pathway, and programmed cell death in intact leaves**, *Plant Abiotic Stress-from signaling to development, 2<sup>nd</sup> meeting of INPAS*, 14.05-17.05, Tartu, Estonia, 2009, p. 47 (*participant*)
28. Boy Possen, Mikko Anttonen, **Lucian Copolovici**, Juha Heiskanen, Katri Kostainen, Sari Kontunen-Soppela, Ülo Niinemets, Elina Oksanen, Matti Rousi, Elina Vapaavuori, **Genetic variation in biomass accumulation within a Silver birch (*Betula pendula* Roth) population**, *8th APGC Symposium: 'Plant Functioning in a Changing Global and Polluted Environment*, Groningen, Netherlands, June 8, 2011
29. Virginia Coman, Florina Copaciu, Ocsana Opris, **Lucian Copolovici**, **Chromatographic analysis of some textile dyes from wastewater samples and their effect over the nonvolatile secondary metabolites of wheat and rye**, „*29<sup>th</sup> International Symposium on Chromatography*”, 9-12 Septembrie 2012, Torun, Poland
30. **Lucian Copolovici**, Ülo Niinemets, Astrid Kännaste, Andreea Pag, Adina Bodescu, Daniel Tomescu, **The identification and atmospheric role of volatile compounds emitted by plants in stress conditions**, *9<sup>th</sup> Conference of Environmental Legislation, Safety Engineering and Disaster Management*, Cluj-Napoca, Romania, 25-27.10.2012 (*participant*)
31. **Lucian Copolovici**, Astrid Kännaste, Ülo Niinemets, **Determination of terpene emissions and contents from stress plants using gas chromatography**, *Centenary of Education in Chemical Engineering*, Iasi, 28-30 November 2012 (*participant*)

### **(3) National Conferences**

32. Alexandra Rustoiu Csavdari, Ioan Baldea, **Lucian Copolovici**, Dana Mihai, **Multicomponent trace analysis of some heavy metal ions by kinetic methods**, A XI-a *Conferinta Internationala de Chimie si Inginerie Chimica*, 30.09-2.10, Bucuresti, 1999, S4-O1 (participant).
33. **Lucian Copolovici**, Ioan Baldea, **Metoda cinetica pentru determinarea cresolilor in concentratii mici** (A Kinetic Method for the Determination of Cresol in Trance), (*in Romanian*), Al XXVI-lea *Simpozion National de Chimie*, 4 - 6 octombrie, Calimanesti-Caciulata, 2000, PS5-464.
34. **Lucian Copolovici**, Ioan Baldea, **Kinetic Determination of Aromatic Amines at Millimolar Level** 30 de ani *învățământ de inginerie chimică*, Cluj-Napoca, 6-8 septembrie 2001, S5-O2 (participant)
35. **Lucian Copolovici**, Claudia Mureșanu, Florina Făgădar, **Kinetics, mechanism and analytical applications of catalase catalyzed decomposition of H<sub>2</sub>O<sub>2</sub> in the presence of phenolic inhibitors**, A XII-a *Conferinta Internationala de Chimie si Inginerie Chimica*, 13.09-15.09, Bucuresti, 2001, S4-P25 (participant).
36. S. Bungău, Ioan Bâldea, **Lucian Copolovici**, Florian Bănică, **Kinetic Determination of Upsarin components using Landolt-Type Reactions**, The 27<sup>th</sup> Annual Congress of American-Roumanian Academy of Arts and Science, Oradea, 12.04-15.04, 2002, P46
37. **Lucian Copolovici**, Ioan Bâldea și Alexandra Rustoiu-Csavdari, **Determinarea para-toluidinei și fenolului în amestec prin o metodă cinetică** (para-toluidine and phenol Determination Using a Kinetic Method), (*in Romanian*), Al XXVII-lea *Simpozion National de Chimie*, 23 -26 octombrie, Calimanesti-Caciulata, 2002, S5-270 (participant)
38. Simona Bungău, Ioan Bâldea and **Lucian Copolovici**, **Determinarea vitaminelor B<sub>1</sub> și B<sub>6</sub> prin oxidare cu permanganat** (Vitamins B<sub>1</sub> and B<sub>6</sub> Determination Using Permangante), (*in Romanian*), Al XXVII-lea *Simpozion National de Chimie*, 23 -26 octombrie, Calimanesti-Caciulata, 2002, S5-298 (participant)
39. Simona Bungău, Ioan Bâldea, Gavril Niac and **Lucian Copolovici**, **O metodă cinetică de determinare a acidului ascorbic din fructe** (A Kinetic Methods for Ascorbic Acid Determination in Fruits), (*in Romanian*), Al XXVII-lea *Simpozion National de Chimie*, 23 -26 octombrie, Calimanesti-Caciulata, 2002, S5-316 (participant)
40. **Lucian Copolovici**, Atilla Horvath and Ioan Bâldea, **Kinetics and Analytical Application of Phenol Oxidation by Potassium Permanganate in Acidic Media**, A III-a *Conferință a Facultății de Chimie Industrială*, 13.11-15.11, Iași, 2002, S5-O6 (participant)
41. Claudia Muresanu, **Lucian Copolovici** and Florina Fagadar, **Cinetica și aplicațiile analitice ale reacției de descompunere a apei oxigenate catalizate enzimatic** (Kinetics and

Analytical Application of The Hydroperoxide Decomposition in Enzymatic Catalysis) (*in Romanian*), A III-a Conferință a Facultății de Chimie Industrială, 13.11-15.11, Iași, 2002, S5-O7 (participant)

42. **Lucian Copolovici**, Alexandra Rustoiu-Csavdari, Ioan Baldea, **O metodă cinetică de determinarea a fenolului și para-toluidinei** (A Kinetic Method for Phenol and *para*-toluidine Determination) (*in Romanian*), Conferința Univ. de Nord, 08.05-09.05, Baia Mare, 2003, P1, (participant)
43. **Lucian Copolovici**, Felicia Dragan, Simona Bungau, **Determinarea acidului acetilsalicilic prin oxidare cu permanganat** (Determination of Acetylsalicylic Acid from Drugs Using Kinetic Methods), (*in Romanian*), Al XXVIII-lea Simpozion National de Chimie, 4 -6 octombrie, Calimanesti-Caciulata, 2004, S4-273
44. **Lucian Copolovici**, Simona Bungau, Felicia Dragan, **Thiamine determination from medicines using gas chromatography**, A 4-a Conferinta Procese Izotopice si moleculare, 22-24.september, Cluj-Napoca, 2005, P. 5.
45. Felicia Dragan, **Lucian Copolovici**, Ioan Bratu, **Determinarea constantei de stabilitate a metoprololului si atenololului in β-ciclodextrina**, Al XXIX-lea Simpozion National de Chimie, 4 -6 octombrie, Calimanesti-Caciulata, 2006, p. 391
46. **Lucian Copolovici**, Willy Maenhaut, **Determinarea acizilor dicarboxilici din probe de aer prin cromatografie de schimb ionic**, Al XXIX-lea Simpozion National de Chimie, 4 -6 octombrie, Calimanesti-Caciulata, 2006, p. 409
47. **Lucian Copolovici**, Willy Maenhaut, **Semivolatile Behaviour of Dicarboxylic acids at Rural (K-puszta, Hungary) and Urban (Gent, Belgium) Sites**, 10<sup>th</sup> Edition of Academic Days, Timisoara, Romania, May 24-25, 2007, o1 (participant)
48. **Lucian Copolovici**, Vito Lippolis, Cristian Silvestru, Mesityltellurium(II) Iodide, Tellurium(II) Diiodide and Selenium(II) Diiodide Complexes with  $[Ph_2P(E)]_2NH$  (E = S, Se), 10<sup>th</sup> Edition of Academic Days, Timisoara, Romania, May 24-25, 2007, P4 (participant)
49. Andrea Pag, Daniel Tomescu, Adina Bodescu, Astrid Kännaste, Trinu Remmel, Ülo Niinemets si **Lucian Copolovici**, **Emission of volatiles organic compounds from stressed plants**, International Symposium Research and Education in Innovation Era, 4th Edition, Arad, 08.11-09.11 2012, (participant).
50. Adina Bodescu, Andreea Pag, Daniel Tomescu, **Lucian Copolovici**, **Analytical method for determination of Biogenic Volatile Organic Compounds**, International Symposium Research and Education in Innovation Era, 4th Edition, Arad, 08.11-09.11 2012 (participant).