

Curriculum Vitae

CONTACT INFORMATION

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EDUCATION

- 1981-1985: High school *Gheorghe Lazar*, Bucharest.
- 1985-1989: Faculty of Technological Chemistry – Polytechnic Institute of Bucharest, Romania – section Chemistry, licence.
- 1989-1990: Faculty of Chemistry, University of Bucharest, Romania, master degree
- 1991-1992 Université de Sciences et Technologies de Lille I, France, *Diplôme d'Etudes Approfondies*
- 1992-1995: Université de Sciences et Technologies de Lille I, France, Ph. D. in Chemistry – mention *très honorable*.

ACADEMIC CAREER HISTORY

- High school *Industrie Usoara* Bucharest, chemistry teacher: sept. 1990 – jan. 1991.
- University of Bucharest, Faculty of Chemistry, Department of Analytical Chemistry
 - o 1991– 1993: Junior Teaching Assistant;
 - o 1993 – 1998: Assistant Lecturer;
 - o 1998 – 2002: Assistant Professor;
 - o 2002 – 2006: Associate Professor;
 - o 2006 – present days: Professor.
- University *Titu Maiorescu* Bucharest, Faculty of Pharmacy, collaboration as Professor: 2015-present day

Since 2007: Habilitation to conduct Ph.D. thesis.

HONORS/AWARDS/FELLOWSHIPS/GRANTS:

- 1991 - winner of a French Government fellowships for MA and Ph.D. studies during 1991-1995.
- *Honorary diploma* – awarded by Romanian Chemical Society on the occasion of its 90th anniversary, (December, 2009).
- *Marquis Who's Who* (<http://bios.marquiswhoswho.com>)

INTERNATIONAL COLLABORATIONS

Visiting positions

- 01.02 – 01.03. 2001- *Maître de Conference* – *Université du Littoral*, Dunkerque, France,
- 01.06 – 30.06. 2006. *Professeur invité* – *Université du Littoral*, Dunkerque, France.

Joint research projects

- 1991-1995: *Systèmes hydroquinoniques à propriétés antioxydants et inhibiteurs potentiels de la voie des lipoxygénases*, Université de Sciences et Technologies de Lille I Programme Pays d'Europe Centrale et Orinetale -91/9100694 – 1991
- 1997-1999: Materials and processes in life control quality optimisation; joint research project type *Socrates* (universities from France, Belgium and Germany involved).
- 2001–2006: L'extraction et dosage des substances à étiqueter dans les matrices cosmétiques joint research project with YSL Beauté and Université du Littoral, Dunkerque France
- 2005-2007 The prediction of protein degradation characteristics of ruminant feedstuffs by the means of near infrared reflectance (NIRS) or on the basis of fibre bound protein joint research project between Republic of Slovenia – and Romania.
- 2012-2014 Co-ordinator of a Romania-Turkey joint research project entitled *An assessment of the anthropogenic factors upon the quality and the health benefits of tea and herbal teas*. Turkish partner: Prof. Hüveyda Başağa, *Sabanci University, Istanbul*.

TEACHING EXPERIENCE

Courses

Analytical Chemistry (Qualitative and Quantitative Analysis) – for first year students of the *Chemistry* and *Environmental Chemistry* sections – since 2005; and for students of first and second year of *Faculty of Pharmacy* since 2014.

Course Content: This course addresses aspects of modern chemical analysis with an emphasis on chemical equilibrium both homogenous and heterogeneous. Volumetric and gravimetric methods are described. Problems solving in analytical chemistry related to equilibria.

Main reference: Christian, D. G. *Analytical Chemistry* 6th ed., Wiley India Pvt. Limited, 2007.

Instrumental Analysis – for second year students of the sections *Environmental Chemistry* (2011/2012) and for those of *Chemistry in French language* (1997 - 2004); and for students of second year of *Faculty of Pharmacy* since 2014.

Course Content: Instrumental analysis focusing on both fundamentals and applications of electrochemical methods. Topics of current interest, such as fuel cells, chemically modified electrodes, corrosion, ion-selective electrodes, are also studied. A special chapter is dedicated to voltammetric methods and mechanisms of chemical reactions.

Main reference: Bernard Trémillon, B. *Reactions in solution: an applied analytical approach*, John Wiley & Sons, 1997.

Methods for structure elucidation of organic analytical reagents (NMR, MS, FT-IR, Raman, UV-VIS) – for first year students of the Master section: *Quality Control and Quality Assurance in Analytical Chemistry*(1995 - 2004);

Course Content: **NMR:** Theory, experiment, sample preparation, chemical shifts, coupling and multiplicity rules, spectra interpretation for ^1H , ^{13}C NMR and 2-Dimensional NMR. **MS:** Ionization methods and mass spectrum interpretation with an accent on the main path of fragmentation for classes of compounds. **FT-IR and Raman:** Basic theory, sample preparation, spectra interpretations. **UV-VIS:** Physical basis and electronic absorptions. Applications on study of various types of equilibria: determination of acidity constant, determination of stoichiometry and stability constants.

Main references:

1. Günther, H. *NMR Spectroscopy: Basic Principles, Concepts, and Applications in Chemistry*, 2nd ed, Wiley-VCH, 1995.
2. Skoog, D.A., Holler, F. J. Crouch, S.R. *Principles of Instrumental Analysis* 6th ed, Thompson/Brooks Cole,, 2007.

Analytical methods in environmental quality control: for 1st year students of the Master section: *Chemical Pollution of the Environment* (2008-2011);

Course Content: Developing analytical methods used for environmental purposes: such as: UV-VIS derivative methods, AAS, ICP-MS and Chromatographic: HPLC, GC-MS and HPIC. Validation of analytical method with practical examples. Principles of Quality Control in analytical chemistry.

Main references:

1. Nollet, L. *Chromatographic Analysis of the Environment* 3rd ed, Taylor & Francis, 2005.
2. Dean, J. R. *Methods for Environmental Trace Analysis* John Wiley & Sons, 2003.

History of Chemistry - for second year students of the Master section: *Integrated approach of Sciences: chemistry, biology and physics* (2010/2011);

Course Content: The history of chemistry including some philosophical, cultural, social and economic analysis of its historical developments.

Main references: Levere, T.H. *Transforming Matter. A History of Chemistry from Alchemy to the Buckyball*, The Johns Hopkins University Press, 2001.

Statistical methods – an introductory course - for the first year students of Faculty of Geography (2011/2012). Data and its variability, probability, sampling and estimation, framing scientific hypotheses; estimating a single treatment mean via a confidence interval and testing for a particular mean via a z-test or t-test; estimating or testing the difference between two treatment means. Real datasets using Excel and Origin are analyzed and discussed.

Main references: Levine, D., Stephan, D. F. *Even You Can Learn Statistics* 2nd ed., Pearson Education, Inc., 2010.

Laboratories

- All laboratories associated to Analytical Chemistry both qualitative and quantitative analysis for first and second year students of the *Chemistry and Environmental Chemistry* sections (1991-2004);
- All laboratories associated with instrumental analysis: electrochemistry, spectrometry and chromatography (1991-2004);

- Methods of Separations: for fourth year students of the *Chemistry* section (1991-1998; 2008-2010).

Methods for art authentication: for 1st year students of the Master section of Faculty of History (since 2016-)

Course Content: NMR: Brief introduction in chemistry and analytical chemistry. Concepts of authenticity, forgery scientific investigation of art. Methods used in art authentication, including ¹⁴C-dating, chromatography, UV-VIS, UV-fluorescence, IR spectrometry, NMR, XRF, AAS and ICP-MS.

Main references:

1. Cycleback, D. *Authenticating Art and Artifacts: An Introduction to Methods and Issues*, Hamerweit Books 2017.
2. Skoog, D.A., Holler, F. J. Crouch, S.R. *Principles of Instrumental Analysis* 6th ed, Thompson/Brooks Cole,, 2007.

Supervising activity

- 2 Ph. D. thesis;
- 53 B.Sc thesis and 31 M.Sc thesis;
- Research stages supervisor (3 months):
students from the University of Perpignan – France (2010-2012, each year 1 student);
ERASMUS student from University of Sassari, Italy (2019) and
Süleyman Demirel University, Turkey (2021)
Eugen Ionescu mobility student from Higher Institute of Biotechnology of Sidi Thabet, Tunisia.

RESEARCH EXPERIENCE

Analytical chemistry:

- analytical separation sciences: chromatographic methods (HPLC, LC-MS, GC-MS, HPIC); ion-exchange chromatography;
- spectrometric methods (UV-VIS, FT-IR, NMR, MS);
- disintegration and dissolution tests;
- electroanalytical methods: voltammetric, potentiometric; KF titration;
- environmental chemistry: organic pollutants monitoring, water analysis;
- pharmaceutical analysis;
- plant and soil chemistry.

Organic chemistry: synthesis and structure elucidation of prenylated compounds.

Current research:

- development of liquid chromatography methods using mixed-mode stationary phases;
- determination of volatile compounds of some living plants by GC-MS and their antioxidant activity;
- set up new chromatographic methods for environmental monitoring (priority organic pollutants and ionic species) using ionic liquids as mobile phase or samples modifiers;
- development of new methods for water decontamination using modified ion-exchange resin or non-conventional materials.

PUBLICATIONS

Scientific publications with peer-review, scientific books, books for chemistry taught in high-schools, patents. Please see *List of Publications*.

OTHER PROFESSIONAL EXPERIENCE

Industrial: knowledge of QC, CGMP, Process validation & Regulatory Affairs:

QC manager, Pharmaceutical company SINDAN (Romania) (1998 – 2000) - specializing in the production and distribution of pharmaceuticals used in the complex treatment of cancer; at that time we manage to obtain the first GMP certificate awarded for a Romanian private Pharmaceutical company.

Main duties: Management of the routine activities of the Quality Control Chemistry and Microbiology Laboratories including the testing of operating supplies, components, raw materials and finished products. Development and/or review and approval of standard operating procedures in accordance to national and international regulations. Ensuring technical expertise for analytical methods used in quality control investigations. Managing QC laboratory operating costs, driving efficiency improvements and cost saving initiatives.

Manager of Development and Validation methods Division of SINDAN's R&D department (2000 – 2003).

Main duties: Development and validation of analytical methods used for quality control of new pharmaceutical forms. Among them a particular interest was given to chromatographic methods (HPLC, GC-MS) and spectrometric (UV-VIS, FT-IR) methods. Providing training for topics such as methods, process and system validation, GMP, and Quality Assurance in pharmaceutical facilities.

since 1998 Regulatory affairs consultant of Hypericum s.r.l. a Romanian pharmaceutical company specialised in marketing of medicinal products, cosmetics and dietary supplements. I coordinate the approval and registration of pharmaceuticals according to the new EU legislation.

PROFESSIONAL TRAINING

- 2018-2019 *Veterinary Support Assistant* course, Level 3, Higher Distinction. Oplex Careers (The content of this course conforms to universally accepted Continuous Professional Development (CPD) guidelines);
- 2011-2013 *Open and distance Education Quality Assurance* (POS DRU/86/1.2/S/60720) project financed by the European Union through the Sectoral Operational Programme Human Resources Development.
- 2011-2013 *Strengthening Competency-Based Higher Education* (POS DRU/86/1.2/S/60081)- project financed by the European Union through the Sectoral Operational Programme Human Resources Development.
- *Academic management* - training course (35 h) at the Bucharest University of the Economic Studies, October, 2003;
- *Project management* - training course (35 h) at the University of Bucharest, June 2000;

- *Eli Lilly*, Strasbourg, France, 27.11/01.12. 1999 –*Quality Control Management*;
- *Hoffmann La Roche*, Basel, Switzerland, 14.12/18.12.1999. *Validation of Analytical Methods*;

PROFESSIONAL SERVICE:

Academic Management

- 2004 – 2019 Member of Academic Council of the Faculty of Chemistry, University of Bucharest;
- 2008-2012 – Cancellor, Faculty of Chemistry, University of Bucharest;
- 2011 – 2015 Member of the Senate of the University of Bucharest.

Academic programs manager

- 2005-2007 Manager of *Rural Education Program* for Faculty of Chemistry (the entire Romanian program was awarded with **best practice** by the European Commission *European Profile for the Language Teacher Education – A Frame of Reference*" 2007).
- 2008-2014 – Co-ordinator of Licence program Chemistry for the students of Faculty of Chemistry, University of Bucharest
- 2009 – 2014 Organizer and co-ordinator of Master degree program ***Integrated approach to natural sciences***: biology, chemistry, physics organized by the Faculty of Chemistry in collaboration with the Faculty of Biology and Faculty of Physics all from University of Bucharest.

Academic courses outside the university

- 2001-2005 *Teaching chemistry in high-schools* – course for teachers involved in teaching chemistry in high-schools organized by the Home Teacher – Bucharest;
- *Validation of chromatographic methods used in quality control of veterinary drugs* - Institute for Control of Biological Products and Veterinary Medicines- Bucharest, October-December, 2013.

Member of Editorial board

- *Environmental Monitoring and Assessment* (Springer);
- *Medicinal Chemistry : An Indian Journal* (Trade Science Inc.);
- *Chemistry : An Indian Journal* (Trade Science Inc.);
- *BioChemistry : An Indian Journal* (Trade Science Inc.).
- *The Open Chemical and Biomedical Methods Journal*.
- Executive Editor: *Analele Universitatii din Bucuresti*

Referee (selection)

- *Journal of Pharmaceutical and Biomedical Analysis*;
- *Analytical Letters*;
- *Food Chemistry*
- *Medical Science Monitor*;
- *Journal of Chromatographic Science*;
- *Journal of Separation Sciences*;
- *Chemical Engineering Communications*;
- *Environmental Monitoring and Assessment*.
- *Revista de Chimie (Bucuresti)*;
- *Revue Roumanie de Chimie*
- *Analele Univ. Buc (Seria Chimie)*.

Activities for scientific community

- President *Raluca Ripan* National Chemistry Competition (for Gymnasium 7th grade children), Bucharest 2018.
- Tutor involving in training high school students participating in various levels of Chemistry Competitions (involving both theoretical and practical activities) since 2016;
- Vice-president of the national conquest “*Chemistry – Friend or Enemy?!?*” dedicated to the high-school students, 2008-2011.
- Promoter of *Faculty of Chemistry image* activities dedicated to the high-school students who want to learn chemistry, since 2008-2012, since then occasionally
- Co-organizer of the *Fair of Education* dedicated to the high-school students, since 2008-2012.
- Organizer of *Faculty of Chemistry day*, dedicated to the high-school students, since 2009-present.
- Trainer of analytical chemistry (both theoretical and practical components) for high-school students of Romanian team participating at *International Chemistry Olympiad*, 1990-2005.

Activities for social community

- Volunteer manager of the *Children's University - Applied Research* activities dedicated to the children from 7 to 14 years old since 2010.
- Volunteer for the *University garden day*, 2009-2012.

PROFESSIONAL AFFILIATIONS

- Romanian Chemical Society; General Secretary 2011-2015.
- Society of Analytical Chemistry *Romania*;
- EURACHEM Romania;

LANGUAGES

English	Effective operational proficiency or advanced (C1 according to Common European Framework of Reference for Languages)
French	Mastery or proficiency (C2 according to Common European Framework of Reference for Languages)
Romanian	native

SKILLS

- Group effectiveness; Good organisational skills; Project management; Critical thinking; Good Listening; Intuition, Flexible, Honest.
- Personal Computer:
 - Windows, Microsoft Office, CorelDraw, QuarkXPress, Photoshop;
 - software for statistical analysis and equipments for analytical methods
- Book editing.

LIST OF PUBLICATIONS

A. PH. D. THESIS

Synthèse et propriétés complexantes de nouveaux inhibiteurs potentiels de lipoxygénases
(ISBD: 000044092 [S.l. : s.n., 1995])

B. SCIENTIFIC PAPERS

1. Marinas, I. C., Oprea, E., Gaboreanu, D. M., Pircalabioru, G. G. Buleandra, M., Nagoda, E., Badea, I. A., Chifiriuc, M. C. *Chemical and Biological Studies of Achillea setacea Herba Essential Oil—First Report on Some Antimicrobial and Antipathogenic Features* Antibiotics, 12, 371, 2023.
2. Tirsoaga, A., Cojocaru, V., Badea, M., Badea, I. A., Rostas, A. M., Stoica, R., Bacalum, M., Chifiriuc, M. C., Olar R. *Copper (II) Species with Improved Anti-Melanoma and Antibacterial Activity by Inclusion in β -Cyclodextrin* International Journal of Molecular Sciences, 24, 3, 2688, 2023.
3. Buleandră, M., Pătraşcu, A.A., Popa, D.E., David, I.G., Badea, I.A., Ciucu, A.A. *Facile Electrochemical Sensor for Sensitive and Selective Determination of Guaifenesin, Phenylephrine and Paracetamol on Electrochemically Pretreated Pencil Graphite Electrode*, Micromachines, 13, 1213, 2022
4. Ilie, C.I., E Oprea, E., El Geana, E.I., A Spoiala, A., Buleandra, M., Gradisteanu Pircalabioru, G., Irinel Adriana Badea, I. A., Ficai, D., Andronescu, E., Ficai, A., Ditu, L. M. *Bee Pollen Extracts: Chemical Composition, Antioxidant Properties, and Effect on the Growth of Selected Probiotic and Pathogenic Bacteria*, Antioxidants, 11 (5), 959, 2022.
5. Turcu, R.P., Panaite, T.D., Untea, A.E., Vlaicu, P.A., Badea, I.A., Mironeasa, S. *Effects of grape seed oil supplementation to broilers diets on growth performance, meat fatty acids, health lipid indices and lipid oxidation parameters* Agriculture, 11 (5), 404, 2021.
6. Marinaş, I.C., Oprea, E., Buleandră, M., Bleotu, C., Badea, I. A., Anastasiu, P., Lazăr, V., Gărduş, I. D., Chifiriuc, M. C. *Chemical, Antimicrobial, Antioxidant and Anti-proliferative Features of the Essential Oil Extracted from the Invasive Plant Solidago canadensis L.* Revista de Chimie 71 (7), 255-264, 2020.
7. Buleandră, M., Moldovan, Z., Badea, I. A., David, I.G., Popa, D. E., Oprea, E., Tekiner Caglar, Basaga, S. H. *Comparative Assessment of the Volatile Profile, Antioxidant Capacity and Cytotoxic Potential of Different Preparation of Millefolli Herba Samples* Rev. Chim., 71 (3), 69-78, 2020.
8. Marin, N. M., Pascu, L. F., Demba, A., Nita-Lazar, M., Badea, I. A., Aboul-Enein, H. *Removal of the Acid Orange 10 by ion exchange and microbiological methods*, Int. J. Environ. Sci. Te., 16 (10), 6357-6366, 2019.
9. Marin, N. M., Tiron, O., Pascu, L. F., Costache, M., Nita-Lazar, M., Badea, I. A. *Synergistic methodology based on ion exchange and biodegradation mechanisms applied for metal complex dye removal from waste waters*, Rev. Chim. 69(1), 38-44, 2018.
10. David, I. G, Popa, D. E., Buleandra, M, Dan, E., Stan, G. S, Badea, I. A., Iorgulescu, E. E; Aboul Enein, H. *Voltammetric Determination of Carprofen*, Current Analytical Chemistry, 14, 1, 13-18, 2018.

11. Tudorache, A.; Ioniță, D. E.; Marin, N. M.; Marin, C.; Badea, I. A., In-house validation of a UV spectrometric method for measurement of nitrate concentration in natural groundwater samples. *Accredit. Qual. Assur.* 22, 29-35, 2017.
12. Oprică, D. I.; Cioroianu, T. M.; Lungu, M.; Sirbu, C.; Motelică, D.-M.; Badea, I. A.; Aboul-Enein, H. Y., Assessment of a bone glue-based foliar fertilizer on tomato quality production. *J. Plant. Nutr.* 40, 685-694, 2017.
13. Moldovan, Z.; Popa, D. E.; David, I. G.; Buleandra, M.; Badea, I. A., A Derivative Spectrometric Method for Hydroquinone Determination in the Presence of Kojic Acid, Glycolic Acid, and Ascorbic Acid. *Journal of Spectroscopy* (Article ID 6929520) 2017.
14. Marin, N. M.; Pascu, L. F.; Stanculescu, I.; Iordache, O.; Jianu, D.; Petrescu, L.; Badea, I. A., Maize Stalk as Natural Ion Exchanger for Hazardous Pollutants. *Rev. Chim.* 68, 1726-1731, 2017.
15. Buleandra, M.; Rabinca, A. A.; Badea, I. A.; Balan, A.; Stamatin, I.; Mihailciuc, C.; Ciucu, A. A., Voltammetric determination of dihydroxybenzene isomers using a disposable pencil graphite electrode modified with cobalt-phthalocyanine. *Microchim. Acta* 184, 1481-1488, 2017.
16. Stan, G. S.; Moldovanu, F.; Badea, I. A., Determination of Phenicols Using a Fast and Reliable HPLC Method Developed on Hypercarb Stationary Phase. *Rev. Chim.* 68, 545-548, 2017.
17. Stan, G.-S.; Badea, I. A.; Aboul-Enein, H. Y., HPLC Method for Quantification of Five Compounds in a Parenteral Form Used in Treatment of Companion Animals. *J Chromatogr. Sci.* 54, 1567-1572, 2016.
18. Ion, A.; Vladescu, L.; Badea, I. A.; Comanescu, L., Monitoring and evaluation of the water quality of Budeasa Reservoir–Arges River, Romania. *Environ. Monit. Assess.* 188, 535, 2016.
19. Buleandra, M., Oprea, E., Popa, D. E., David, I.G., Moldovan, Z., Mihai, I., Badea, I.A. Comparative Chemical Analysis of *Mentha piperita* and *M. spicata* and a Fast Assessment of Commercial Peppermint Teas *Nat. Prod. Commun.* Vol. 11 (4), 551-555, 2016.
20. David, I.G., Buleandă, M., Popa, D. E., Bîzgan, A.M.C., Zenovia Moldovan, Z., Badea, I.A., Iorgulescu, E. E., Tekiner, T. A., Huveyda Basaga, H. Voltammetric determination of polyphenolic content as rosmarinic acid equivalent in tea samples using pencil graphite electrodes, *J Food Sci Technol* 53 (6), 2589-2596, 2016.
21. Stan, G. S., Mitoi, B. E., Mihaila, A., Badea, I. A., Aboul-Enein, H.Y. Determination of Carprofen in the Presence of some Hydrosoluble Vitamins of Group B by HPLC Method, *Current Analytical Chemistry* 11, 4, 273-278, 2015.
22. David, I. G., Florea, M. A., Cracea, O. G., Popa, D. E., Buleandra, M., Iorgulescu, E. E., David, V., Badea, I.A. Voltammetric determination of B1 and B6 vitamins using a pencil graphite electrode, *Chemical Pap.*, 69, 7, 901–910, 2015.
23. Marinas, I.C., Oprea, E., Chifiriuc, M.C., Badea, I.A., Buleandra, M., Lazar, V. Chemical Composition and Antipathogenic Activity of *Artemisia annua* Essential Oil from Romania, *Chemistry & Biodiversity*, 12, 1554-1564, 2015.
24. David, I. G., Bizgan, A. M.C., Popa, D. E., Buleandra, M., Moldovan, Z., Badea, I.A., Tekiner, T. A., Basaga, Ciucu, A.A. Rapid determination of total polyphenolic content in tea samples based on caffeic acid voltammetric behaviour on a disposable graphite electrode *Food Chem.*, 173, 1059-1065, 2015.
25. David, I. G., Florea, M. A., Cracea, O. G., Popa, D. E., Buleandra, M., Iorgulescu, E. E., David, V., Badea, I.A. Voltammetric determination of B1 and B6 vitamins using a pencil graphite electrode, *Chemical Pap.*, 69, 7, 901–910, 2015.

26. Buleandră, M., Crișan, C. C., Călinescu, I., Zălaru, C., Moldovan, Z., David, I. G., Badea, I. A. Rapid analysis of the volatile components in *Gaillardia aristata* Pursh. and *Gaillardia x grandiflora* Hort. by static headspace gas chromatography - mass spectrometry *Chem. Nat. Compd.* 51, 4, 787-789, 2015.
27. Crisan, C.C., Buleandra, M., Calinescu, I., Zalaru, C., David, I. G., Badea, I. A. Chemical composition of the aerial part and fruits of *Coreopsis tinctoria* Nutt., *Chem. Nat. Compd.* 51, 3, 571-572, 2015.
28. Bucur, C., Badea, M., Chifiriuc, M. C., Bleotu, C., Iorgulescu, E. E., Badea, I. A., Grecu, N., Lazăr, V., Patriciu, O.I., Marinescu, D., Olar, R. Studies on thermal, spectral, magnetic and biological properties of new Ni(II), Cu(II) and Zn(II) complexes with a bismacrocyclic ligand bearing an aromatic linker, *J. Therm. Anal. Calorim.* 115, 2179-2189, 2014.
29. Ioan Călinescu, I., Gavrilă, A. I., Ivopol, G. C., Ivopol, M., Mircioagă, N, Buleandră, M, Badea, I. A., Pătrașcu, M., The Efficient extraction of essential oil from mentha spicata, U.P.B. Sci. Bull., Series B, Vol. 76, 4, 2014.
30. Oprică, D. I., Cioroianu, T. M., Lungu, M., Badea, I. A. An eco friendly foliar fertilizer with bone glue suitable for crops of maize and sunflower *Rev. Chim.* 65, 1-7, 2014.
31. Badea, I. A., Vitan, I., Vladescu, L., Aboul-Enein, H. Y. Simultaneous determination of some analgesic drugs using mixed mode stationary phase, *Chromatographia* 76 (21-22): 1459-1465, 2013.
32. David, I. G., Badea, I. A., Radu, G.L. Disposable carbon electrodes as an alternative for the direct voltammetric determination of alkylphenols from water samples *Turkish Journal of Chemistry*, 37, 91-100, 2013.
33. Badea, I.A., Axinte, L., Vladescu, L. Monitoring of aminophenols isomers in surface water samples using a new HPLC method *Environ. Monit. Assess.*, 185, 3, 2367-75, 2013.
34. Calinescu, O., Badea, I. A., Vladescu, L., Meltzer, V., Pincu, E. HPLC separation of acetaminophen and its impurities using a mixed-mode reversed phase/cation exchange stationary phase *J. Chromatogr. Sci.* 50 (4), 335-342, 2012.
35. Moldovan, Z., Badea, I.A., Bunaciu, A., Aboul-Enein, H. Y. An indirect spectrophotometric method for the determination of captopril using Cr(VI) and diphenylcarbazide *Quim. Nova*, 35, 1668-1672, 2012..
36. Cruceru, I., Florescu, A., Badea, I. A., Vladescu, L. Determination of three alkylphenols isomers in various water samples using a new HPLC method based on a duet stationary phase *Environ. Monit. Assess.*, 184, 10, 6061-70, 2012.
37. Cruceru, I., Iancu, V., Petre, J., Badea, I.A., Vladescu, L. HPLC-FLD determination of 4-nonylphenol and 4-tert-octylphenol in surface water samples *Environ. Monit. Assess.* 184, 5, 2783-95, 2012.
38. Tudorache, A., Marin, C., Badea, I.A., Vlădescu, L. Arsenic concentration monitoring in natural mineral waters of Romania *Environ. Monit. Assess.* 173(1-4), 79-89, 2011.
39. Duca, R. C., Vlădescu, L., Badea, I. A., David, I.G, David, V. Redox behaviour of zearalenone in Various Solvents *Anal. Lett.* 43 (8-9) 1217-1229, 2010.
40. Badea, I. A., Vlădescu, L., David, I.G, David, V., Litescu, S. New HPLC Method for Determination of Papaverine in Presence of Its Photooxidation Products *Anal. Lett.* 43 (8-9) 1287-1300, 2010.
41. Tudorache, A., Marin, C., Badea, I.A., Vlădescu, L. Barium concentrations and speciation in mineral waters of central Romania *Environ. Monit. Assess.* 165 (1) 113-123, 2010.
42. Duca, R.C., Bravin, F., Delaforge, M., Vlădescu, L., Badea, I. A., Criste, R. D. Development of a New HPLC Method Used for Determination of Zearalenone and Its

- Metabolites in Broiler Samples. Influence of Zearalenone on the Nutritional Properties of Broiler Meat. *J. Agric. Food Chem.* 57 (22) 10497–10504, 2009.
43. Badea I. A., Vlădescu L., Dumitrescu V., Capotă P., Marin L. Optimization of Molybdenum Quantitative Separation by Precipitation with α -Benzoine-oxyme Starting from Acidic Solutions *Rev. Chim. (Bucuresti)* 59 (12) 1296-1300, 2008.
 44. Cruceru, I., Badea, I., Vlădescu, L. Combined cation exchange-liquid-liquid extraction method for GC-MS determination of 4-nonylphenol content in water *Rev. Chim.* 12, 2007.
 45. Neculai D. M., Surpateanu, G.G., Badea, I., Cazier, F., Surpateanu, G. Studies on the tautomeric benzotriazolium ylide equilibrium *Croatia Chemica Acta.* 79 553-558, 2006.
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