

Curriculum Vitae

CONTACT INFORMATION

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Date of birth: 29 November 1966

Nationality: Romanian, Citizen: Romanian

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

ACADEMIC CAREER HISTORY

- High school *Industria Usoara* Bucharest, chemistry teacher: sept. 1990 – ian. 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.
 - o 2007 – PhD Supervisor

TEACHING EXPERIENCE

Courses

Analytical Chemistry (Qualitative and Quantitative Analysis); Instrumental Analysis Methods for structure elucidation of organic analytical reagents (NMR, MS, FT-IR, Raman, UV-VIS) ; Analytical methods in environmental quality control; History of Chemistry; Statistical methods – an introductory course

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).

Supervising activity

- 6 Ph. D. thesis;
- 48 B.Sc thesis and 27 M.Sc thesis;
- Research stages supervisor (3 months): students from the University of Perpignan – France (since 2010, each year 1 student).

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-76, two scientific books, 10 books for chemistry taught in high-schools, two patents (one being international).

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.*

OTHER PROFESSIONAL EXPERIENCE

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

- QC manager, Pharmaceutical company SINDAN (Romania) (1998 – 2000) -
- Manager of Development and Validation methods Division of SINDAN's R&D department (2000 – 2003).

PROFESSIONAL TRAINING

- 2011-2013 *Open and distance Education Quality Assurance (POSDRU/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 (POSDRU/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

- since 2004 – 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.

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*.

Activities for scientific community

- 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 2009-2011.
- 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*, since 2009.

PROFESSIONAL AFFILIATIONS

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

LANGUAGES

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| 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

- Personal Computer:
 - Windows, Microsoft Office, CorelDraw, QuarkXPress, Photoshop;
 - software for statistical analysis (Origin, Minitab);
 - software for chemistry (ChemBioOffice, ACDLABS, Scigress, etc.), software for analytical equipments: HPLC (Thermo Finnigan, Agilent Technologies, Waters) GC-MS (Thermo Finnigan), HPIC (Dionex, Sykam), UV-VIS (Jasco, Unicam), NMR (Bruker 400 MHz).
- Book editing.

10.02. 2018
Irinel Adriana Badea

