NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY POLITEHNICA BUCURESTI

FACULTY OF CHEMICAL ENGINEERING AND BIOTEHNOLOGIES

"Costin Nenițescu" Departament of Organic Chemistry



Curriculum vitae Europass



Balaure, Paul Cătălin

Personal information

Surname / First name

Address)

1-7 Polizu Gheorghe Street, Bucharest, 011061, Romania

Telefonphone number

Fax

E-mail addresses

pbalaure@gmail.com; paul.balaure@upb.ro

Nationality)

Romanian

40-726-259170

Date of birth

05.05.1961

Sex

male

Work experience

Dates (from-to)

2014 - present

Occupation or position held

Associate Professor

Main activities and responsibilities

Teaching and research activities

Employer's name and locality

National University of Science and Techology Politehnica Bucureşti

Business or sector

Education/Research

Dates (from-to)

2001 - 2014

Occupation or position held

Lecturer

Main activities and responsibilities

Teaching and research activities

Employer's name and locality

National University of Science and Techology Politehnica Bucuresti

Business or sector

Education/Research

Dates (from-to)

1996 - 2001

Occupation or position held

Senior Research Associate

Main activities and responsibilities

Research

Employer's name and locality

Romanian Academy, "Costin D. Nenițescu" Institute of Organic Chemistry, Bucharest

Business or sector
Dates (from-to)

Research 1991-1996

Occupation or position held

Research Associate

Main activities and responsibilities

Research

Employer's name and locality

Romanian Academy, "Costin D. Nenitescu" Institute of Organic Chemistry, Bucharest

Business or sector

Research

Dates (from-to)

1989-1991

Occupation or position held

Research Assistant

Main activities and responsibilities

Research

Employer's name and locality

Romanian Academy, "Costin D. Nenițescu" Institute of Organic Chemistry, Bucharest

Business or sector

Research

Dates (from-to)

1986-1989

Occupation or position held

Trainee Engineer

Main activities and responsibilities

Production and interphase and final analysis and control activities

Employer's name and locality

Sugar Beat Processing Plant, Fundulea, Călărași

Business or sector

Production/food industry

Education and training

Dates

2009-2010

Qualification awarded

Postgraduate certificate in pedagogy

Principal subject studied / skills acquired

Educational Psychology, Pedagogy I (The fundamental Curriculum theory and methodology), Pedagogy II (Theory and methodology of instruction, Theory and methodology of educational assessment), Methods of teaching specialized matters, Computer assisted training, Classroom management, Teaching practice in pre-university education, Psycho-pedagogy of adolescents and young adults, Design and management of educational programs, Teaching and development in the teaching specialty area, Teaching practice in high school, secondary, tertiary, Multimedia Education,

Psychosociology of education

Education or training organisation's name and locality

Ministry of Education, Research, Youth and Sport, POLITEHNICA University of Bucharest, Department of teacher training

Dates

2007

Qualification awarded

Certificate of research stage completion

Principal subject studied / skills acquired

Electrochemistry, Electroanalysis

Education or training organisation's name and locality

UNIVERSITÁ DEGLI STUDI MODENA E REGIO EMILIA, DIPARTIMENTO DI CHIMICA, ITALIA

Dates

1990-1996

Qualification awarded

PhD in Chemistry

Principal subject studied / skills acquired

Advanced Organic Synthesis, Reaction Mechanisms in Organic Chemistry, Advanced instrumental analysis of organic compounds

Education or training organisation's name and locality

Romanian Academy, Section of Chemical Sciences, "C. D. Nenițescu" Institute of Organic Chemistry, Bucharest

Dates

1981-1986

Qualification awarded

MS degree, specialty Organic Chemical Technology

Principal subject studied / skills acquired

Organic Chemistry, Reaction mechanisms in organic chemistry, Instrumental analysis, Chemistry and Technology of Basic Organic and Petrochemical Synthesis, Chemistry and Technology of Natural and Synthetic Drugs, Chemistry and Technology of Pesticide Synthesis, Chemistry and Technology of Natural and Synthetic Drugs

Education or training organisation's name and locality

Polytechnic Institute of Bucharest, Faculty of Chemical Technology

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Dates

1976-1980

Qualification awarded

Principal subject studied / skills acquired

Education or training organisation's name and locality

High School Diploma, specialty Physics-Chemistry

Mathematics, Physics, Chemistry, Chemistry Lab, Biology, Biochemistry, Biophysics, Romanian Language and Literature, English Language

"C. A. Rosetti" High School of Natural Sciences, Bucharest

Professional skills and abilities

Deliver lectures and seminar/laboratory learning activities on

- Organic Chemistry Bachelor of Science Degree Program (BS) in Chemical Engineering at Faculty of Chemical Engineering and Biotechnologies (FCEB), National University of Science and Techology Politehnica Bucuresti (NUSTPB)
- Biochemistry BS, at FCEB, NUSTPB
- Chemistry and Technology of Natural and Synthetic Pesticides BS Programs in Chemical Engineering at FCEB and Faculty of Engineering in Foreign Languages, **NUSTPB**
- Environmental toxicology: toxicants and antidotes BS Programs in Medical Equipment and Systems and Biomaterials and Medical Devices at Faculty of Medical Engineering, NUSTPB
- Food toxicology BS Programs in Food Engineering at FCEB and Faculty of Biotechnical Systems Engineering, NUSTPB
- Pharmaceutical Technology (Master of Science Degree Program (MS) in Pharmaceutical and Cosmetic Products at FCEB, NUSTPB
- Application of Chromatographic Methods for the Structural and Compositional Study of Food Products - MS in Quality Control and Security of Food Products at FCEB, NUSTPB.
- Bachelor's and Master's Thesis Supervision

Research areas

- · Designing and conducting advanced organic synthesis experiments.
- Syntheses of pharmacological active compounds from the class of dibezo[b,f]azepine.
- Syntheses and biomedical applications of nanostructured systems: syntheses of metal oxide nanoparticles with core/shell/adsorption extra shell morphology and interesting applications like biofilm development inhibition, augmentation of the antimicrobial activity of antibiotics, controlled drug delivery. Syntheses of modified-release dosage forms based on nanostructured silica network prepared by the molecular imprinting technology. Functionalization of silica nanoparticles with organic compounds and biomolecules.
- Domino reactions mediated by organic palladium complexes: applications in the synthesis of biological active molecules having the steroid and/or taxane carbon skeleton. Allene syntheses.
- Study of organic reaction mechanisms: oxidation, ring opening, cycloaddition, cationic rearrangement reactions.
- The chemistry of small ring systems: generation and dimerization of benzocyclobutadiene systems by classical methods and under ultrasonic activation.
- Synthesis of thiophene based conducting polymers for electrochemical sensors and biosensors.
- Polymeric membranes in separation processes: applications in ultrafiltration and pervaporation.
- Use of enzymes in determination of pharmaceuticals and toxicants in environmental and food matrices.

Other skills and responsibilities

Reviewer for several ISI journals

- New Journal of Chemistry
- RSC Advances
- Current Analytical Chemistry
- Drug Development and Industrial Pharmacy
- Journal of Biomaterials Science-Polymer Edition
- Pharmaceutics
- University Politehnica of Bucharest Scientific Bulletin Series B: Chemistry and Materials Science

Mother tongue

Romanian

Other Languages Auto Evaluation

European level (*)

English

	Understanding			Speaking					Writing
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient usert	C2	Proficient user	B2	Independent user	B2	Independent user	C2	Proficient user

(*) Common European Framework of Reference for Languages

Communication skills

- very good ability to communicate for successful adaptation in a multi-cultural environment gained through my experience during the research activity carried out at the University of Modena and Reggio Emilia, Italy

Organisational / managerial skills

2021-present Guest Editor of special issues of the ISI journals "Frontiers in Bioengineering and Biotechnology" (Impact factor 6.064)), "Materials" (Impact factor 3.748), "Coatings" (Impact factor 3.236)

2020 - present - Member of the Topical Advisory Panel of the ISI journals "Materials" and Coatings"

2011 - 2013; 2019 – present - Member of the Editorial Board of the ISI journal "Biointerface Research in Applied Chemistry"

2014- present - Member of the Editorial Board of the IDB journal "Austin Journal of Nanomedicine & Nanotechnology"

2012-2013 - Member of the Editorial Board of the IDB journal "Letters in Applied NanoBioScience"

1994-1999 - Member of the Board of Directors of S.C. IPROCHIM S.A. Bucharest

Technical skills and competences

User of the usual analytical techniques in organic chemistry (FT-IR, UV-VIS spectrometry, NMR, MS, chromatographic methods)

Computer skills

User of Microsoft office (Word, Power-point, Excel), Chemdraw, Chemwin, Adobe Acrobat

Driving licence

Category B

Supplemental Information

Published research papers

- 2 books
- 5 book chapters
- 43 in extenso papers (32 ISI articles from which 22 as main or correspondence author and 11 articles in journals indexed by international data bases)
- 7 ISI articles as main or correspondence author in Q1 journals according to the impact factor (red zone articles)
- 40 communications at international and national congresses and conferences

Date: 15.09.2023 Signature

Assoc.Prof.Dr.Eng. Paul Cătălin BALAURE