

**PERSONAL  
INFORMATION**

📍 4-12 Regina Elisabeta Av., S 3, 030018, Bucharest, Romania  
☎ +4 021.305.14.64 ; 📞 +4 021.315.92.49  
✉ octavian.pavel@chimie.unibuc.ro  
octavian.pavel@unibuc.ro  
🌐 <https://unibuc.ro/user/octavian.pavel/>  
<https://unibuc.ro/user/octavian.pavel/?lang=en>

**PROFESSIONAL  
EXPERIENCE**

19.02.2024 - prezent **Associate Professor Dr. Habil.** at University of Bucharest, Faculty of Chemistry, Department of Inorganic Chemistry, Organic Chemistry, Biochemistry and Catalysis

19.02.2007 - 18.02.2024 **Lecturer Dr.** at University of Bucharest, Faculty of Chemistry, Department of Organic Chemistry, Biochemistry and Catalysis

01.10.2004 - 18.02.2007 **Assistant Dr.** at University of Bucharest, Faculty of Chemistry, Department of Chemical Technology and Catalysis

18.02.2002 - 30.09.2004 **PhD student, Laboratory assistant** at University of Bucharest, Faculty of Chemistry, Department of Chemical Technology and Catalysis

**STUDIES & ACADEMIC  
TITLES**

2023 **Certificate of Habilitation at the University of Bucharest**  
Title: **Tailored layered materials as exciting multifunctional heterogeneous catalysts**

2002 - 2006 **PhD in Chemistry** at University of Bucharest  
Title: **Acid - base solid catalysts. Conversion of functional compounds on mixed oxide catalysts.**

2001 - 2003 **Master Degree's at Faculty of Chemistry, University of Bucharest**  
Specialization: Catalysis and catalytic processes  
Title: **Mg - Al hydrotalcite catalysts for cyanoethylation reaction.**

1997 - 2001 **Bachelor in Chemistry**, Faculty of Chemistry, University of Bucharest  
Specialization: Chemistry – Physics  
Title: **Using of macrocyclic ligands in analytical chemistry.**

1991 - 1995 **High School Degree's**, Normal School „D.P. Perpessicius”, Brăila  
Specialization: Chemistry – Biology

**SPECIALISATION &  
FELLOWSHIPS**

08 - 18.05.2023 Specialization "Intranet and SharePoint - creation of intranet pages. Intranet for Departments, Faculties and Projects" (no. 544/06.07.2023)

06.03.2016 - 03.06.2016 Visiting Research Fellow in the School of Chemistry and Chemical Engineering, Queen's University Belfast, United Kingdom of Great Britain and Northern Ireland

3.09.2012 - 7.09.2012 COINAPO Summer School "Advance in Nanocomposite Materials: Preparation and Characterization", Romanian Academy, Bucharest, România

March 2012 - May 2012	Program "Strengthening Higher Education oriented skills", funded by European Social Fund through the Sectorial Operational Program Human Resources Development 2007 – 2013; POSDRU/86/1.2/S/60281
November 2011 - May 2012	Postgraduate – Student centered education - design strategies, implementation and institutional evaluation Module M2.2. Student centered strategies - the Project, Training type, blended learning "for academics (BLU), POSDRU/57/1.3./S/26646, no. UB 111/26.05.2012
05.09.2011 - 01.10.2011	Visiting Research Associate in the School of Chemistry and Chemical Engineering, Queen's University Belfast, United Kingdom of Great Britain and Northern Ireland
03.09.2006 - 27.10.2006	Postdoctoral research stage, Réactivite de Surface, Université Pierre et Marie Curie, Paris, France
12.09.2005 - 31.10.2005	Stage of specialization, Réactivite de Surface, Université Pierre et Marie Curie, Paris, France
25.09.2002 - 29.09.2002	2 <sup>nd</sup> EFCATS school on catalysis - Tihany, Hungary

## LANGUAGES

Mother tongue Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

## MEMBER OF PROFESSIONAL ASSOCIATIONS

- Romanian Catalysis Society
- Romanian Chemistry Society

## MEMBER OF THE FACULTY COMMITTEES

- Member of the Council of the Faculty of Chemistry since 2015
- Member of the Quality Commission of the Faculty of Chemistry since 2005
- Member of the 2021 Master's student admission committee
- Member of the evaluation committee of the symposium "Chimia Prieten sau Dușman" 2010, 2011, 2012, 2013, 2014, 2015; 2022, 2023, 2024, 2025
- Member of the evaluation committee of the works from the "Student Scientific Communications Session", 05/27-28/2022; 26-27/05/2023; 24-25.05.2024
- Member of the Image committee of the Faculty of Chemistry, Subcommittee "Tour of High Schools" from 2022

**SPECIFIC KNOWLEDGE**

- Synthesis of solid catalysts by different preparation methods: co-precipitation, sol-gel, impregnation, ion exchange, mechano-chemical, etc.
- Synthesis of organo-metallic complexes.; Synthesis of ionic liquids.
- Characterization of solid catalysts using the following techniques: FT-IR, DRIFTS, Raman, UV-VIS, DTA-TG, XRD, BET, DLS, TPD-CO<sub>2</sub> / NH<sub>3</sub>, electrical conductivity, TEM, SEM, elemental analysis, TOC, etc.
- Catalyst testing: in liquid or gaseous phase, in conditions of normal pressure or high pressure, in the presence of ultrasound, UV or microwave radiation, at ambient or high temperatures, etc.
- Reactions in the presence of ionic liquids (ILs) or organometallic complexes immobilized in ionic liquids (SILP, SCILL).
- Analysis of reaction products: gas chromatography (GC), gas chromatography coupled with mass spectrometry (GC-MS), high performance liquid chromatography (HPLC).

**COMPUTER SKILLS & COMPETENCES**

- Windows operating systems WINDOWS (98, 2000, Me, XP, VISTA, 7,8,10,11)
- Microsoft Office, Browser web (Internet Explorer, Google Chrome, Microsoft Edge, Opera, Mozilla Firefox, Netscape Navigator)
- E-mail (Microsoft Outlook, Pegasus Mail)
- Chemistry software (Isis Draw, Chemoffice, Chemwin, Biovia, etc.)
- Experimental data processing software (Origin, Peakfit, ACD / Spectrus Processor, Openlab),
- Video communication services (Zoom, Google Meet, Microsoft Teams, Moodle), etc.

**HANDED UNIVERSITY COURSES**

## Bachelor level

- Catalysis - Applications in Environmental Chemistry, Year III, Specialization: Environmental Chemistry
- Principles of Heterogeneous Catalysis, Year III, Specialization: Environmental Chemistry
- Catalysts and Unconventional Catalytic Processes, Year IV, Specialization: Chemistry
- Preparation of catalysts, Year III, Specialization: Chemistry
- Catalytic processes in environmental protection; Year III; Department of Chemistry

## Master level

- Methods and processes for remediation of industrial gases, Year I, Specialization: Environmental Quality Control
- Nanomaterials, Year II, Specialization Chemistry of Advanced Materials
- 

**MEMBER OF THE DOCTORAL SCHOOL**

- Doctoral School in Chemistry from 2023

## FIRST DIDACTIC DEGREE THESES

---

As an evaluator

- **The importance of the laboratory experiment in the study of the physical and chemical properties of oxygen and carbon**, Secondary School "Samson Bodnărescu", Gălănești, Suceava, 2016
- **The role of recapitulation in the study of addition reactions**, Theoretical High School with cls. I-XII "Horia Hulubei", Măgurele, Ilfov, 2013

As supervisor

- **Laboratory experiment in the study of hydrocarbon oxidation reactions**; National College "Costache Negri", Tg. Ocna, Bacău, 2013

## DIPLOMA THESIS COORDINATION

---

Bachelor level

- 8 students

Master level

- 7 students

## DOCTORAL STUDENTS' GUIDANCE

---

- Dragos BALTAG, matriculated 2024
- Salan Eman TAHA, matriculated 2025

## MEMBER IN THE DOCTORAL STUDENTS' GUIDANCE COMMITTEES

---

- Maria Cristina GHEȚU; registration 2021 in English; coordinator – Profesor Dr. Emeritus Vasile I. Pârvulescu
- Mihai BOREDEIAȘU; registration 2019 in English; coordinator – Profesor Dr. Habil. Simona Margareta COMAN
- Marius STOIAN; registration 2019 in English; coordinator – Professor Dr. Habil. Ioan-Caesar MARCU
- Alexandra-Elisabeta STAMATE; registration 2018 in English; PhD thesis defense in 2022; coordinator – Professor Dr. Habil. Ioan-Caesar MARCU
- Florin ANDREI; registration 2018 in English; coordinator – Professor Dr. Habil. Ioan-Caesar MARCU
- Hussein Mahdi AL-AANI; registration 2016 in English; PhD thesis defense in 2019; coordinator – Professor Dr. Habil. Ioan-Cezar MARCU

## SCIENTIFIC REFERENT ACTIVITY

---

- Nanomaterials; Crystals; Catalysts; Materials; Minerals; Molecules; Sensors; Energies; Inorganic and Nano-Metal Chemistry; Reaction Kinetics, Mechanisms and Catalysis <https://www.webofscience.com/wos/author/record/B-5845-2011>
- Applied Catalysis A; Arabian Journal of Chemistry; Catalysis Communications; Applied Clay Science; Comptes rendus chimie; Journal of Saudi Chemical Society; Molecular Catalysis; Materials Research Bulletin; Microporous and Mesoporous Materials; Catalysis Communications; Catalysis Today; Catalysis Science & Technology; Journal of Taibah University for Science; Revue Roumaine de Chimie; Advanced Materials Research; Green Processing and Synthesis; Journal of Industrial and Engineering Chemistry, Frontiers in Chemical Engineering, etc.

## PROFESSIONAL RECOGNITION

---

- Member of the Editorial Board of Universal Journal of Catalysis Science ([Link](#))
- Associate Editor at Frontiers in Chemical Engineering – Sustainable Process Engineering ([Link](#))
- Topic Editor for Frontiers in Chemical Engineering / Catalytic Engineering – Layered Double Hydroxides and their Use as Catalysts in Fine Chemicals ([Link](#))
- Guest editor for the special issue “Layered Double Hydroxide-Based Catalytic Materials for Sustainable Processes”, Catalysts, MDPI ([Link](#))
- Guest editor for the special issue “Layered Double Hydroxide-Based Catalysts for Advanced Chemical Technologies”, Catalysts, MDPI ([Link](#))
- Review Editor, Inorganic Chemistry, Frontiers in Chemistry ([Link](#))
- Collection Editor “Layered Double Hydroxides and Related Materials for Advanced Heterogeneous Catalytic Processes”, Catalysts ([Link](#))

## MEDALS & AWARDS

---

### Medals

- **Biocompatible composite hydrogel, containing layered double hydroxides, for the controlled release of bioactive substances from buckthorn phytoextracts and obtaining procedure**  
Andrei Sârbu, Rodica Zăvoianu, Octavian Dumitru Pavel, Anamaria Zaharia, Ana Lorena Neagu, Alina Jurca, Carmen Țebrencu, Oana Teodora Apreutesei, Marinela Victoria Dumitru, Teodor Sandu, Tanța Verona Iordache  
Gold Medal at America Innovation Invention Exhibition, AIIE 2024, August 26-28, USA
- **Composite hydrotalcite-based compounds and tuff with clinoptilolite, manufacturing processes and their use for water treatment**  
Rodica Zăvoianu, Liliana Sârbu, Eleonora Lumunița Mara, Ruxandra Birjega, A. Bolma, Anca Cruceanu, Octavian D. Pavel, Fănica Bacalum, C. Niculescu, C. Butko, E. Nechita  
Bronze Medal at the Salon of Inventions and Innovations INVENTIKA 15 - 18 October 2014, Bucharest, Romania

- Awards
- **A new approach in the synthesis of LDH-type materials used in the condensation reaction**  
Silvana Denisa Mihăilă, Bogdan Cojocaru, Gheorghita Mitran, Mihai Cosmin Corobea, Octavian Dumitru Pavel\*, Rodica Zăvoianu  
The 2<sup>nd</sup> International Electronic Conference on Catalysis Sciences - A Celebration of Catalysts 10<sup>th</sup> Anniversary, Poster, **Best Poster Award**  
<https://eccs2021.sciforum.net/> / <https://doi.org/10.3390/ECCS2021-11146>
  - **Catalysis: Best Researcher Award**  
Octavian D. PAVEL; Future Catalyst Technologies Award, 2023, by World Top Scientists, Excellence Service Award from the University of Malaya, Malaysia, <https://worldtopscientists.com/octavian-d-pavel-catalysis-best-researcher-award-1621/>

## OTHER SKILLS AND COMPETENCES

---

- Certificate of internal auditing (SR EN ISO 19011:2003) for Quality Management System (SR EN ISO 9001:2001), no. 1067 A.I.C./18.02.2008 (SIMTEX-OC Certification Organization)
- Internal auditor - Transition to SR EN ISO 9001: 2008, Modifications, their importance and effects on the Quality Management System, Nr. 621 / 20.06.2009 (SIMTEX-OC certification).
- Responsible for collaboration between the University of Bucharest and Jagiellonian University in Krakow, Faculty of Chemistry, Department of Chemical Technology starting from 2020
- Responsible for collaboration between the University of Bucharest and Pierre and Marie Curie University, Surface Reactivity Laboratory, UMR-CNRS 7609 between 2008 – 2013

## ORGANISATIONAL SKILLS & COMPETENCES

---

- Secretary at RomCat2025; RomCat2022; RomCat2019; RomCat2016; RomCat2013; RomCat2010; RomCat2007; RomCat2004
- Secretary at “International School on Innovations in Homogeneous and Supported and Homogeneous Catalysis”, Bucharest 25-28 April 2023, Romania
- Secretary at Summer School CATALYSIS for PROMISING FUTURE 20-21 June 2022, Băile Govora, România
- Secretary at Workshop SoSolMat, Contemporary solutions for advanced materials with high impact on society, 11th-15th Octombrie 2021, București, România

## PROJECT DIRECTOR IN NATIONAL GRANTS

---

1. [PN-III-P1-1.2-PCCDI2017-0387](#) Nr. 80PCCDI/2018, "**Emerging technologies for the industrial exploitation of 2D structures (graphene and non-graphene)**"; Acronym of the complex project: EMERG2Ind", Responsible Partner 1 University of Bucharest and Project Director Component 2: "**New and emerging technologies for improving the thermal properties of new automotive materials (required in processing, exploitation or fire)**"; 2018 – 2021
2. [PN-II-RU-TE-2011-3-0026](#) "**New solid base LDH catalysts modified with lanthanides active in the unpolluting epoxidation reaction of alkenes**"; 2012 – 2014
3. [IDEI 534/15.01.2009-2011](#) "**Changes induced by memory effect in the physical-structural characteristic of hydrotalcites. Elaboration of criteria for the design of catalysts used in fine organic synthesis.**" 2009 – 2011

4. CNCSIS TD 371 "Catalysts hydrotalcites (HT) and mixed oxides derived from HT with structure and controlled dispersion"; 2004 – 2006

**MEMBER OF TEAM  
WORKING IN NATIONAL  
GRANTS**

---

- Member of the working team on 27 national projects and 1 international project

**OTHER RELEVANT DATA**

---

According to SCOPUS

- index *h* 22; documents 94; citations 1665

According to Web of Science

- index *h* 22; documents 89; citations 1536; citations (no self-citations) 1317

**SUPPLEMENTARY  
INFORMATION**

---

PATENTS	5
BOOKS	1
BOOKS CHAPTER	4
DIDACTIC ARTICLES	2
ARTICLES PUBLISHED IN ISI FOREIGN JOURNALS	84
ARTICLES PUBLISHED IN THE NATIONAL JOURNALS ISI	7
ARTICLES PUBLISHED IN THE NATIONAL JOURNALS NON-ISI	3
PAPERS PUBLISHED IN FULL IN THE PROCEEDINGS	8
ARTICLES PUBLISHED IN ENCYCLOPEDIAS	1
KEY NOTES	1
ORAL COMMUNICATIONS	46
first / correspondence author	14
co-author	32
INVITED LECTURE	1
POSTER COMMUNICATIONS	103
first / correspondence author	28
co-author	75
CIVIS - ORAL COMMUNICATIONS	3