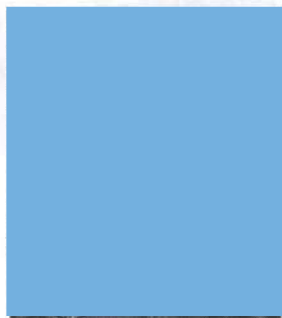


PERSONAL INFORMATION

Dumitru-Octavian PAVEL



📍 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.**

Supervising: Prof. Dr. Emeritus Emilian ANGELESCU

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.**

Supervising: Prof. Dr. Emeritus Emilian ANGELESCU

1997 - 2001

Bachelor in Chemistry, Faculty of Chemistry, University of Bucharest

Specialization: Chemistry – Physics

Title: **Using of macrocyclic ligands in analytical chemistry.**

Supervising: Prof. Dr. Valerică DUMITRESCU

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	COINAPPO 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 nd 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

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

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-CO₂ / NH₃, 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)
- 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/Spectrum 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

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**, at Secondary School "Samson Bodnărescu", Gălănești, Suceava, 2016
- **The role of recapitulation in the study of addition reactions**, at the 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

- 2007 **Basic solid catalysts from hydrotalcites**
- 2008 **Basic solid catalysts used in the cyanoethylation reaction**
- 2009 **The memory effect of basic solid catalysts of the hydrotalcite type**
- 2010 **Basic solid catalysts used in the depollution of phenolic waters**
- 2011 **Mg/Al hydrotalcites modified with Zn and Ga used in the ketonization reaction of acetic acid**
- 2012 **New basic catalysts used in the "green" reaction of alkene oxidation**
- 2013 **Basic catalysts used in environmentally friendly oxidation reactions**
- 2024 **Layered double hydroxides used in the Claisen-Schmidt condensation reaction**

Master level

- 2010 **New catalytic materials used in the epoxidation reaction of olefins under environmentally friendly conditions**
- 2010 **M²⁺-Mg/Al type hydrotalcites used in the ketonization reaction of acetic acid**
- 2012 **The memory effect corresponding to Mg,Al hydrotalcites obtained by different preparation methods**
- 2016 **New structured materials used in the oxidation reaction** (in collaboration with Prof. Dr. Vasile I. Pârvulescu)
- 2021 **Layered Double Hydroxides catalysts used in fine chemical reactions**
- 2022 **Base catalyzed reactions in fine synthesis**
- 2024 **The use of tailored LDH-type materials in fine synthesis**

**MEMBER OF THE
DOCTORAL SCHOOL**

- Doctoral School in Chemistry from 2023

**MEMBER IN THE
DOCTORAL STUDENTS'
GUIDANCE
COMMITTEES**

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

**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
- Member of the evaluation committee of the works from the "Student Scientific Communications Session", 05/27-28/2022; 26-27/05/2023
- Member of the Image committee of the Faculty of Chemistry, Subcommittee "Tour of High Schools" from 2022

**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
- Associate Editor at Frontiers in Chemical Engineering – Sustainable Process Engineering
- Topic Editor for Frontiers in Chemical Engineering / Catalytic Engineering – Layered Double Hydroxides and their Use as Catalysts in Fine Chemicals
- Guest editor for the special issue "Layered Double Hydroxide-Based Catalytic Materials for Sustainable Processes", Catalysts, MDPI
- Guest editor for the special issue "Layered Double Hydroxide-Based Catalysts for Advanced Chemical Technologies", Catalysts, MDPI
- Review Editor, Inorganic Chemistry, Frontiers in Chemistry
- Collection Editor "Layered Double Hydroxides and Related Materials for Advanced Heterogeneous Catalytic Processes", Catalysts

MEDALS & AWARDS

Medals

- **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

- **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 Tebrencu, Oana Teodora Apreutesei, Marinela Victoria Dumitru, Teodor Sandu, Tanța Verona Iordache

Gold Medal at America Innovation Invention Exhibition, AIIE 2024, August 26-28, USA

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 2nd International Electronic Conference on Catalysis Sciences - A Celebration of Catalysts 10th Anniversary, Poster, **Best Poster Award**
<https://eccs2021.sciforum.net/> / <https://doi.org/10.3390/ECCS2021-11146>

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 "International School on Innovations in Homogeneous and Supported and Homogeneous Catalysis", Bucharest 25-28 April 2023, Romania
- Secretary at The 13th International Symposium of the Romanian Catalysis Society, RomCat2019, 22-23 June 2022, Băile Govora, România
- 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
- Secretary at The 12th International Symposium of the Romanian Catalysis Society, RomCat2019, 5-7 June 2019, Bucharest, Romania
- Secretary at "The 11th International Symposium of the Romanian Catalysis Society", RomCat Conference 2016, June 6-8, 2016, Timisoara, Romania
- Secretary at „The International Symposium of the Romanian Catalysis Society - ROMCAT2013”, 29-31 Mai 2013, Cluj-Napoca, Cluj, Romania
- Secretary at „9th Symposium on Heterogenous Catalysis - ROMCAT2010”, June 2010, Bucharest, Romania
- Secretary at „8th Symposium on Heterogenous Catalysis - ROMCAT2007”, June 2007, Bucharest, Romania
- Secretary at Al 7^{lea} Simpozion de Cataliză, București, 7-8 Octombrie, 2004

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

1. PNRR; Project 5: **Integrated solutions for water pollution abatement – towards zero pollution (NO-Poll);** 2023 – 2025
2. PN-III-P2-2.1-PED-2021-1870 **"Ecotehnologie de obținere a unor fitoingredienți încapsulați în hidrogel pe bază de complecși bioactivi imobilizați în matrice de hidroxizi dubli lamelari (DUACTIVMER)"**, 646PED/2022; 2022 – 2024
3. PN-III-P4-ID-PCE2020-2207 **"Decontaminarea fotocatalitică a apelor reziduale din industria farmaceutică utilizând catalizatori magnetici supramoleculari hibridi organic-anorganic";** 2021 – 2023
4. PN-III-P4-ID-PCE2020-0580 **"Precursori pentru biopolimeri și aminoacizi esențiali din derivați ai biomasei";** 2021 – 2023
5. 21SOL/2020 **"Dezvoltarea de soluții inovative pentru decontaminare împotriva virusului SARS-CoV-2"**, SOLUTIONS-2020 competition; 3 months 2020
6. PN-III-P4-ID-PCCF-2016-0088 **"Functionalized hierarchical structures on graphene exhibiting magnetic, adsorption and catalytic properties";** 2018 – 2020
7. PN-III-P1-1.2-PCCDI-2017-0541 **"Energetic efficiency biogas plants improvement by integrated system: biogas-microalgae-biofuels in frame of biorefinery concept (AlgalBiogasConceptEnergy)";** 2018 – 2020
8. PN-III-P4-ID-PCE-2016-0146 **"Graphenes as eco-heterogeneous catalysts for the eco-production of C4-dicarboxylic acids";** 2017 – 2019
9. PN-III-P1-1.1-TE-2016-0562 **"In depth study of the structure – photocatalytic activity relationship of lanthanide metal doped titania photocatalyst";** 2018 – 2020
10. PN-II-PT-PCCA-2011-3.1-1423, **"New chemical systems based on nanocrystalline frameworks and porous architectures for Intermediate Temperature Solid Oxide Fuel Cells (IT-SOFC) operating with biogas";** 2012 – 2016
11. PCCA 137/2012 (HYLAYHY) **"Nanocomposite films hybrid (inorganic organic) layered double hydroxides based (LDH) with hydrophobic surfaces and / or protective coatings role";** 2012 – 2016
12. PN-II-PT-PCCA-2013-4-0177, **"Wastewater treatment by flocculation-oxidation processes mediated by flocculants and catalysts derived from red mud";** 2014 – 2016
13. PN-II-JRP nr. 13/2013 **"Catalytic biogas conversion under polarization, POLCA";** 2013
14. Project PNCDI II, **"New strategies for the synthesis of fine chemicals by catalytic selective oxidation"**, Nr 105/2011; 2012 – 2014
15. PN-II-PT-PCCA-2011-3.2-1683 **"Biomaterials synthesis for polyesters industry with applicability in the production of ballistic protection equipments";** 2012 – 2016
16. PN-II-PT-PCCA-2011-3.1-1462 **"Hybrid inorganic-organic nanocomposites films of layered double hydroxides with hydrophobic/protective coating surfaces";** 2012 – 2014
17. Project COST - **CM0904;** 2010 – 2014
18. ANCS, 65CB/04.07.2008 **"Aminoacids as building blocks in selective synthesis";** 2008 – 2009
19. PN II, 32-159/2008, **"Multifunctional oxide materials for environmental applications, obtained through innovative waste treatment and recovery of red mud resulting from alumina production" (MOLVALNR);** 2008 – 2011
20. PNCDI 2, 71-043/2007 **"Advanced materials derived from hydrotalcites and clinoptilolite type compounds to remove pollutants from wastewater and liquid petroleum fractions by environmentally friendly methods" (ECOPAM);** 2007 – 2010

21. CEEEX no. 2CEEEX-6D11-104-Ad.1/2007 "Nanostructured oxide materials with transport properties of drugs" (OXTRANS); 2006 – 2009
22. CEEEX no. C1-454, PC-D04-PT24-828 "New oxidic nano-structured catalysts for industrial processes that ensure sustainable development"; 2005 – 2007
23. CNCSIS type A, no. 34/2004, code 1117 "Complexes of iron, cobalt and nickel encapsulated in porous matrices – new multifunctional catalytic systems active in the dimerization process of alkenes and hydrogenation of vinyl aromatics"; 2004 – 2006
24. CERES, S1, no. 4-44/4.11.2004 "Mesoporous alumina with predetermined porosity and shape selectivity controlled"; 2004 – 2006
25. CERES, Project 3-106/2003 "Higher valorisation of hydrocarbons by obtaining fine organic synthesis intermediates using metathesis and oxydehydrogenation processes catalyzed by new active catalytic compositions based on mixed oxides"; 2003 – 2004
26. CNCSIS Type A "Synergism effects in catalysis by mixed oxides based on ZrO₂ for the skeleton isomerization of hydrocarbons"; 2002 – 2004

OTHER RELEVANT DATA

According to <u>SCOPUS</u>	➤ index <i>h</i> 22 ➤ documente 88 ➤ citations 1513
According to <u>Web of Science</u>	➤ index <i>h</i> 21 ➤ documents 86 ➤ citations 1418 ➤ citations (no self-citations) 1200
Additional links	ORCID https://orcid.org/0000-0002-6466-651X Google Academic https://scholar.google.ro/citations?user=XG-yApAAAAAJ&hl=ro Web of Science https://www.webofscience.com/wos/woscc/summary/794f35a4-ba78-442c-aab3-dd44f6314f1f-4dd78d3a/relevance/1 Academia Edu https://unibuc.academia.edu/OCTAVIANDUMITRUPAVEL ResearchGate https://www.researchgate.net/profile/Octavian_D_Pavel LinkedIn https://www.linkedin.com/in/octavian-d-pavel-40038b139/ Brainmap https://www.brainmap.ro/dumitru-octavian-pavel

ADDITIONAL INFORMATION

Driving licence	➤ Category: B since 1996
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SUPPLEMENTARY INFORMATION

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19 / 12 / 2024

Associate Professor Dr. Habil.
PAVEL Dumitru-Octavian


PATENTS

1. **Hidrogels with semi-interpenetrated networks containing layered double hydroxides for the controlled release of inulin and obtaining procedure**
A. Sârbu, R. Zăvoianu, A. Zaharia, O.D. Pavel, M.V. Dumitru, T. Sandu, A. Jurca, C.E. Țebrencu, A.E. Stamate, T. V. Iordache, A. L. Chiriac, A.-M. Gavrilă
Patent application, No. Registration OSIM A/00795/05.12.2023.
2. **Biocompatible composite hydrogels, containing double lamellar hydroxides, for the controlled release of bioactive substances from buckthorn phytoextracts and production process**
Andrei Sârbu; Rodica Zăvoianu; Dumitru-Octavian Pavel; Anamaria Zaharia; Ana-Lorena Neagu; Alina Jurca; Carmen Țebrencu; Oana Teodora Apreutesei; Marinela Victoria Dumitru; Teodor Sandu; Tanța-Verona Iordache
Patent application, No. Registration OSIM A/00108/07.03.2023
3. **Composition and production process, based on "BIOBASED" polyamide with improved fire resistance**
Mihai Cosmin Corobea, Zina Vuluga, Rodica Zăvoianu, Octavian Dumitru Pavel, George Mihail Teodorescu, Andreea Afilipoaei, Alexandra Elisabeta Stamate, Anca Cruceanu
Patent Application, No. Registration OSIM A/00077/25.02.2021
4. **Treatment process with oxidant-coagulants generated from red mud of waters with a high organic load**
Rodica Zăvoianu, Liliana Sârbu, Octavian Dumitru Pavel, Anca Cruceanu, Corina Bradu, Elena Alina Olaru, Andrei Sârbu, Teodor Sandu, Fănica Bacalum, Anamaria Zaharia, Eleonora Luminița Mara, Ruxandra Bîrjega, Dan Cosașu, Andreea Gabriela Olaru, Cristina Maria Marioara
Patent Number(s): RO 133166B1; Date of publication 28.02.2022
5. **Composites based on compounds like hydrotalcite and volcanic tuff with clinoptilolite, production processes and their use in water purification**
Rodica Zăvoianu, Liliana Sârbu, Eleonora Luminița Mara, Ruxandra Bîrjega, Aurelia Bolma, Anca Cruceanu, Octavian Dumitru Pavel, Fănica Bacalum, Cristina Niculescu, Coloman Butka, Eleonora Nechita
Patent Number(s): RO127639-A2; RO127639-B1; Date of publication 30.10.2013

BOOKS

1. **Collection of problems proposed and solved of organic chemistry**
Gheorghita Mitran, Aura Gheorghita Nedelcu, Octavian Dumitru Pavel
EDITURA BOGDANA, 123 pagini, 2008, ISBN 973-9127-75-1-x

BOOK CHAPTERS

1. **Chapter 10. Heterogeneous catalysts for biomass-derived alcohols and acid conversion**
Gheorghita Mitran, Octavian Dumitru Pavel, Dong-Kyun Seo
HETEROGENEOUS CATALYSIS Materials and Applications, Edited by Moises Romolos Cesario, Daniel Araujo De Macedo, pp. 297-326; Elsevier, Netherlands-United Kingdom-United State, Copyright © 2022 Elsevier Inc.; ISBN: 978-0-323-85612-6; <https://doi.org/10.1016/B978-0-323-85612-6.00010-3>
2. **Chapter 3. Selective addition reactions of 2-propenenitrile (Cyanoethylation)**
Octavian D. Pavel, Rodica Zăvoianu
Advances in Chemistry Research. Volume 49, pp. 121-168; In Advances in Chemistry Research; James C. Taylor (Editor) 2019 Nova Science Publishers, Inc., Publication Date: January 2019; ISBN: 978-1-53614-759-9 <https://novapublishers.com/shop/advances-in-chemistry-research-volume-49/>

3. **Chapter 1. Impact of Molybdena and Vanadia Mixed Based Oxides on Hydrogen Production by Steam Reforming**

Gheorghita Mitran, Dong-Kyun Seo, Octavian D. Pavel

Frontiers in Ceramic Science, 2018, Vol. 2, 1-32; Moisés R. Cesário, Daniel A. de Macedo, Cédric Gennequin & Edmond Abi-Aad (Eds.) <http://www.eurekaselect.com/167957/chapter/impact-of-molybdena-and-vanadia-mixed-based-oxides-on-hydrogen-production-by-steam-reformin>; DOI: 10.2174/9781681087580118020005; ISBN: 978-1-68108-759-7

4. **Chapter 4. Environmental Protection Applications of Red Mud**

Rodica Zăvoianu, Anca Cruceanu, Octavian D. Pavel, Andrei Sârbu, Teodor Sandu, Luminița Mara Novapublishers, Publisher: Nova Science Publishers Inc, November 2018, pp. 123-250, In Red Mud: Production, Composition and Impact, Editor: Kay Richard, ISBN: 978-1-53614-383-6 <https://novapublishers.com/shop/red-mud-production-composition-and-impact/>

DIDACTIC ARTICLES

1. **Layered double hydroxide materials (Materialele de tip hidroxizi dubli stratificați)**

Octavian D. Pavel*

Chimia - Revista pentru elevi 8(12) (2020) 26-31, ISSN 2601-6168; <http://www.schr.ro/publicatii/revista-chimia/>

2. **Specialized internship at the Chemistry Faculty of the University of Bucharest (Practica de specialitate la Facultatea de Chimie a Universității din București)**

Octavian D. Pavel*, Adriana Urdă

AiChimie 2 (2023) 88-98; ISSN 2972-1997, ISSN-L 2972-1997; <https://chimie.unibuc.ro/index.php/revista-aichimie/2859-aichimie-nr-2-noiembrie-2023>

ARTICLES PUBLISHED IN ISI FOREIGN JOURNALS

1. **Layered Double Hydroxide-Based Composites for Concerted Decontamination of Water**

Qays Al Hasnawi, Sabina Gabriela Ion, Mădălina Tudorache, Octavian Dumitru Pavel*, Bogdan Cojocaru

Catalysts 14 (2024) 668; <https://doi.org/10.3390/catal14100668>

2. **Influence of molybdenum incorporation on the structural, chemical, and catalytic properties of iron cobaltite and cobalt ferrite catalysts**

Gheorghita Mitran, Octavian Dumitru Pavel, Adriana Urdă, Anca G. Mirea, Florentina Neațu, Ștefan Neațu, Mihaela Florea

Applied Catalysis A, General 679 (2024) 119739; <https://doi.org/10.1016/j.apcata.2024.119739>

3. **Impact of organic / inorganic alkalis in tailoring of Mg/Al-hydrotalcite used in Claisen-Schmidt condensation**

Rodica Zăvoianu, Salman Eman Taha, Bogdan E. Cojocaru, Vasile I. Pârvulescu, Octavian D. Pavel

Catalysis Today 435 (2024) 114693; <https://doi.org/10.1016/j.cattod.2024.114693>

4. **Valorization of (Bio)Ethanol over MoO₃/(WO₃-ZrO₂) Sol-Gel Like Catalysts**

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KEY NOTES

- Tailoring lamellar materials: a crucial key for enhancing their catalytic efficiency in the synthesis of fine chemicals**

Octavian D. Pavel, Rodica Zăvoianu, Ruxandra Bîrjega, Vasile I. Pârvulescu

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<https://www.ukcatalysisconference.co.uk/>

ORAL COMMUNICATIONS

First / correspondence author

- Organic alkalis as an alternative to traditionally inorganic ones for eco-friendly mechano-chemical synthesis of LDH-type catalysts**

Octavian D. Pavel, Bogdan Cojocaru, Rodica Zăvoianu, Vasile I. Pârvulescu

18th ICC 2024, International Congress on Catalysis, July 14-19, TUE-T4-03 / Preparation of heterogeneous catalysts, <https://www.icc-lyon2024.fr/en/scientific-program/detailed-program/47>

- Organic alkalis as an alternative for eco-friendly mechano-chemical synthesis of Layered Double Hydroxides-type catalysts**

Octavian D. Pavel, Bogdan C. Jurca, Rodica Zăvoianu, Ruxandra Bîrjega, Bogdan Cojocaru, Vasile I. Pârvulescu

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- Removal of indigo carmine from wastewater by adsorption on vegetal wastes**

Octavian Dumitru Pavel, Rodica Zăvoianu, Diana Buha, Elena Mihaela Ungureanu, Anca Cruceanu, Alina Tîrșoagă, Oana Teodora Apreutesei

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- New approaches in synthesis of 2D LDH-type materials used in the Claisen-Schmidt condensation**

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Rodica Zăvoianu, Alexandra-E. Stamate, Octavian D. Pavel, Anca Cruceanu, Ruxandra Bîrjega, Ioana A. Brezestean, Alexandra Ciorita
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Ana-Lorena Neagu, Anamaria Zaharia, Marinela Victoria Dumitru, Iulia Elena Neblea, Sorin Dolana, Tanta Verona Iordache, Carmen Elena Tebrencu, Rodica Zăvoianu, Octavian Dumitru Pavel, Alina Tîrsoaga, Andrei Sarbu
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3. **Hybrid organic-inorganic magnetic supramolecular composites with adsorption and photocatalytic degradation capabilities of antibiotics under solar light**
Bogdan Cojocaru, Razvan Mihailescu, Nicolae Guzo, Octavian D. Pavel, Sabina Ion, Madalina Tudorache, Simona M. Coman, Vasile I. Parvulescu
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5. **Synthesis, characterization and catalytic activity of Mg₃Al_{0.75}Ce_{0.25}-LDH-GO composites**
Alexandra-E. Stamate, Octavian D. Pavel, Ruxandra Bîrjega, Rodica Zăvoianu, Ioan-C. Marcu
Sesiunea de Comunicări Științifice Studentești ediția a XVI-a (SCSS 2021), București, Romania, 28-29 mai 2021
6. **Highlights on the catalytic properties of MgNi(Cu)Al LDH in the selective epoxidation of cyclohexene**

- Alexandra-E. Stamate, Octavian D. Pavel, Ruxandra Birjega, Rodica Zavoianu, Ioan-C. Marcu
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June 4-5, 2021, Cluj-Napoca, Romania
7. **Spectroscopic and microscopic investigations of the graphene oxide influence on hybrid powder products based on LDH structures**
Ioana Brezestean, Daniel Marconi, Alia Colniță, Alexandra Ciorăță, Mihai C. Corobea, Alexandra-E. Stamate, Octavian D. Pavel, Rodica Zăvoianu, Ioan Turcu
13th International Conference Processes in Isotopes and Molecules, 22-24 September 2021, Cluj-Napoca, Romania e-poster2021 https://pim.itim-cj.ro/2021/pages/posters_list.html
 8. **LDH-GO composites as catalysts for the oxidative removal of indigo carmine dye from wastewater**
Alexandra-Elisabeta Stamate, Rodica Zavoianu, Octavian Dumitru Pavel, Anca Cruceanu, Mihai Cosmin Corobea, Mariana Osiac, Nicoleta Cioatera
23rd International Symposium "Environment and Industry" SIMI 2020, 24th-25th September 2020 Bucharest, Romania <http://www.dsplace.incdecoind.ro/bitstream/123456789/1668/1/01.pdf>
 9. **Catalytic activity of mixed oxides derived from LDH in the synthesis of methylpyrazine: a comparative study**
Andrei Iulian Slabu, Octavian Dumitru Pavel, Florina Teodorescu
13th Students' Congress of SCTM, 19-21 September 2019, Institute of Chemistry, Skopje, N. Macedonia, p. 43, ISBN 978-9989-760-17-4
<https://eprints.ugd.edu.mk/23064/1/13th%20Student%20congress%20of%20SCTM-abstract-2019.pdf>
 10. **Layered double hydroxides functionalized with organic chromophores utilized for stamping of polymer profiles**
Rodica Zăvoianu, Ariana Șerban, Octavian D. Pavel, Elena Bacalum, Angela Vlad, Ruxandra Birjega
5th International Conference on Advances in Functional Materials (AFM 2019), George Washington University, Washington D.C., USA, July 22 – 24, 2019, p. 71-72.
 11. **Conversion of lignocellulosic agricultural wastes into adsorbents for pharmaceutical drugs**
Anca Cruceanu, M.A. Vaideanu, Rodica Zavoianu, Elena Bacalum, Octavian D. Pavel
22nd International Symposium – SIMI 2019 "The environment and the industry", Bucharest, Romania, September 26 – 27, 2019, pag. 30 <http://doi.org/10.21698/simi.2019>
 12. **Catalytic synthesis of alkylpyrazines over mixed oxides obtained from LDHs materials**
Florina Teodorescu, Octavian D. Pavel
20th Romanian International Conference on Chemistry and Chemical Engineering, Poiana Brasov, ROMANIA - September 6 – 9, 2017
 13. **Impact of SCILL catalysts in alcohol oxidation**
Iunia Podolean, Octavian D. Pavel, Haresh G. Manyar, Peter Goodrich, Christopher Hardacre, Vasile I. Parvulescu
13th European Congress on Catalysis, EUROPACAT, FLORENCE, 27 – 31 August 2017, ITALY, SS18.5
<https://efcats.org/xxx.html>
 14. **Impact of the ionic liquids from SCILL-type catalysts on selectivity in the oxidation of alcohols**
Octavian D. Pavel, Iunia Podolean, Haresh G. Manyar, Peter Goodrich, Christopher Hardacre, Vasile I. Pârvolescu
8th World Congress on Oxidation Catalysis (2017), 3rd – 8th September 2017 Krakow, Poland
 15. **Impact of structured catalysts in amine oxidation under mild conditions**
Jose Luis Santos, Jose Antonio Odriozola, Miguel Angel Centeno, Octavian D. Pavel, Bogdan Jurca, Vasile I. Pârvolescu
5th International conference on structured catalysts and reactors, June 22 – 24, 2016, Donostia-San Sebastian, Spain, O-37; http://icoscar5.weebly.com/uploads/3/2/3/2/32328513/icoscar5_program.pdf
 16. **Functional layered double hydroxides and their catalytic activity for 1,4-addition of n-octanol to 2-propenenitrile**
Rodica Zavoianu, Octavian D. Pavel, Anca Cruceanu, Mihaela Florea, Ruxandra Birjega
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Rodica Zavoianu, Anca Cruceanu, Octavian D. Pavel, Luminita Mara, T. Velea, Ruxandra Birjega
RedMud Conference 2015; "Bauxite Residue Valorisation and Best Practices" Leuven, 5-7 October 2015, Belgium; https://conference2015.redmud.org/?page_id=70
19. **Synthesis and characterization of titanium dioxide phases in mesostructured silica matrices with photocatalytic activity**
D.S. Gopala, R.R. Bhattacharjee, R. Haerr, B. Yeginoglu, Octavian D. Pavel, Bogdan Cojocaru, Vasile I. Parvulescu, R. M. Richards
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20. **2,5-furandicarboxylic acid synthesis in water as green alternative to terephthalic acid**
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21. **Influence of the chemical composition of the brucite-type layer of LDH-compounds Zn_xAl , Mg_xAl on their catalytic activity for the epoxidation of olefins using H_2O_2 as greener oxidant**
Rodica Zăvoianu, Octavian D. Pavel, Corina Bradu, Emilian Angelescu, Anca Cruceanu, Ruxandra Birjega
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22. **Novel ruthenium-terpyridyl complex for direct oxidation of amines to nitriles**
Vasile I. Parvulescu, Liliana Cristian, Octavian D. Pavel
7th World Congress on Oxidation Catalysis, Saint Louis, Missouri, June 8 – 12th, 2013
23. **Novel ruthenium-terpyridyl complex for direct oxidation of amines to nitriles**
Liliana Cristian, Simona Nica, Octavian D. Pavel, Constantin Mihailciuc, Alexandru C. Razus, Christopher Hardacre, Walter Leitner, V.I. Parvulescu
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24. **Mg-Al layered double hydroxides (LDHs) and their derived mixed oxides grown by laser techniques**
Ruxandra Birjega, Andreea Matei, Angela Vlad, Mihaela Filipescu, D. Colceag, A. Nedelcea, M.D. Ioniță, C. Luculescu, Maria Dinescu, Rodica Zăvoianu, Octavian D. Pavel
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25. **Tert-butanethiol oxidation using Mg-Co-Al-Mo mixed oxides catalysts obtained from hydrotalcite-like precursors**
Rodica Zăvoianu, Anca Cruceanu, Octavian D. Pavel, A.O. Vâlcu, Elena Bacalum, Ruxandra Birjega, Emilian Angelescu
9th International Symposium of the Romanian Catalysis Society ROMCAT 2010, "Gh. Asachi" Technical University of Iasi, Iasi, Romania, June 23 – 26, 2010, p. 29-30
26. **Influence of the preparation method on the catalytic activity of Mo-Mg-Al mixed oxides derived from hydrotalcite type precursors utilized as catalysts for olefin metathesis**
Rodica Zăvoianu, Ruxandra Birjega, Anca Cruceanu, Octavian D. Pavel, Emilian Angelescu
8th International Symposium of the Romanian Catalysis Society, ROMCAT2007, Bucharest, 21 – 23 June, ROMCAT2007, p. 49-50

27. **Mo-containing hydrotalcites catalysts for hydrocarbons selective oxidation**
 Rodica Zăvoianu, Octavian D. Pavel, Ruxandra Bîrjega, Cristina Preda, Mihaela Ropot
 7th Symposium on Catalysis, Bucharest, 7 – 8 October, 2004, p. 24

INVITED LECTURE

1. **The impact of layered materials with tailored properties in the synthesis of fine chemicals**
Octavian D. Pavel, Bogdan Cojocaru, Bogdan C. Jurca, Florin Andrei, Ruxandra Bîrjega, Rodica Zăvoianu, Vasile I. Pârvulescu
 GreenCam for Tomorrow, Materials from Biomass, Summer School, September 12th-16th, 2022, NTNU in Trondheim, Norway <https://chimie.unibuc.ro/edu/greencam/index.php/summer-school-2022>

POSTER COMMUNICATIONS

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- A non-traditional perspective in the synthesis of Fe-LDH type materials**
Octavian Dumitru Pavel, Rodica Zăvoianu, Alina Tîrșoagă, Anca Cruceanu, Bogdan Cojocaru, Ruxandra Bîrjega, Vasile I. Pârvulescu
 Congerinta Națională de Chimie, Ediția XXXVI, Călimănești – Căciulata, Vâlcea, România, 5th - 7th October 2022, P.S.IV. - 6, p. 174; <https://chimcomplex.com/cnchim-2022/>
- A new path in the synthesis of Zn modified LDH used in Claisen-Schmidt condensation**
Octavian D. Pavel, Silvana D. Mihăilă, Bogdan Cojocaru, Bogdan C. Jurca, Gheorghita Mitran, Rodica Zăvoianu, Mihai C. Corobea, Ruxandra Bîrjega, R. Tincu, Vasile I. Pârvulescu
 The 13th International Symposium of The Romanian Catalysis Society, ROMCAT2022, June 22 – 24, 2022, Băile Govora, Romania, p. 141-142, P35
- 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 2nd International Electronic Conference on Catalysis Sciences - A Celebration of Catalysts 10th Anniversary, Best Poster Award; <https://doi.org/10.3390/ECCS2021-11146>
- Quaternary ammonium salts for hydrotalcite-type catalysts synthesis**
Octavian Dumitru Pavel, Bogdan Cojocaru, Bogdan C Jurca, Rodica Zăvoianu, Ruxandra Bîrjega, Vasile I. Pârvulescu
 The 2nd International Electronic Conference on Catalysis Sciences - A Celebration of Catalysts 10th Anniversary, <https://doi.org/10.3390/ECCS2021-11145>
- Organic alkalis as a viable alternative to conventional inorganic one in the hydrotalcite-type materials synthesis pathways**
 Silvana-Denisa Mihăilă, Octavian-Dumitru Pavel*, Rodica Zăvoianu, Bogdan Cojocaru, Bogdan Jurca, Vasile I. Pârvulescu
 Horizons of Science: Forum of Diploma Theses 2021, 7-8 June; Poland
https://horyzontynauki.uj.edu.pl/en_GB/biezaca-edycja/program
- Synthesis, characterization and catalytic activity of Mg₃Al_{0.75}Ce_{0.25}-LDH-GO composites**
 Alexandra-Elisabeta Stamate, Rodica Zăvoianu, Octavian-Dumitru Pavel*, Mihai-Cosmin Corobea, Mariana Osiac, Nicoleta Cioateră, Florin Miculescu
 5th International Conference on Catalysis and Chemical Engineering, San Francisco, CA, USA, February 22-26, 2021 (CCE-2021), Poster no. CCE-P16, Poster + Video presentation
<https://catalysis.unitedscientificgroup.org/2021/home.php>
- Mechanochemical method: a key way in the insertion of large cations in the LDH-type structure**
Octavian D. Pavel, Bogdan Cojocaru, Ruxandra Bîrjega, Rodica Zăvoianu, Vasile I. Pârvulescu

- 14th European Congress on Catalysis, EuropaCat 2019, Aachen, Germany, 18 – 23 August, 2019, poster B.1.104
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8. **Mechanochemical vs. co-precipitation method in the synthesis of Li-Al-type LDH**
 Octavian D. Pavel, Alexandra E. Stamate, Elena Bacalum, Bogdan E. Cojocaru, Rodica Zăvoianu, Vasile I. Pârvulescu
 The 12th International Symposium of the Romanian Catalysis Society, RomCat2019, 5 – 7 June 2019, Bucharest, Romania, poster 22, p. 115-116 <https://www.chimie.unibuc.ro/romcat/>
 9. **Aliphatic amine oxidation: the impact of inert gases on the solubility of oxygen in ionic liquids**
 Octavian D. Pavel, Bogdan Cojocaru, Simona M. Coman, Peter Goodrich, Christopher Hardacre, Vasile I. Pârvulescu
 The 11th International Symposium of the Romanian Catalysis Society, RomCat Conference 2016, June 6 – 8, 2016, Timisoara, Romania, poster P-31, p. 131-132
 10. **Oxidation of amines to nitriles in presence of new metal-free catalyst**
 Octavian D. Pavel, Bogdan Cojocaru, Alina Tirsoaga, Ana Primo, Marta Puche, Hermenegildo García, Vasile I. Pârvulescu
 The 11th International Symposium of the Romanian Catalysis Society, RomCat Conference 2016, June 6 – 8, 2016, Timisoara, Romania, poster P-32, p. 133-134
 11. **Increasing the yield for cyclohexene epoxidation using Mg_xAl solid base catalysts**
 Octavian D. Pavel, Rodica Zăvoianu, Gheorghita Mitran, Ruxandra Birjega, Florentina Neatu, Emilian Angelescu
 The Seventh Tokyo Conference on Advanced Catalytic Science and Technology (TOCAT7), June 1 - 6, 2014, Kyoto, Japan, Poster GP2111 <https://www.shokubai.org/tocat7/images/poster1.pdf>
 12. **Water vs alkaline solution in the reconstruction of HT-structure**
 Octavian D. Pavel, Rodica Zăvoianu, Gheorghita Mitran, Florentina Neatu, Emilian Angelescu
 XIth European Congress on Catalysis, Lyon, France, 1 September – 6 september 2013, POSTER3-T1-06
 13. **New solid base LDH catalysts modified with La and Y active and selective in the unpolluting epoxidation reaction of alkenes**
 Octavian D. Pavel, Rodica Zăvoianu, Emilian Angelescu, Ruxandra Birjega
 7th World Congress on Oxidation Catalysis, Saint Louis, Missouri, June 8 – 12th, 2013, Abstract Number 1181, Poster Presentation, Location: 59, Session: B2. Greener Oxidants, Alternative Oxidants, pag. 36
 14. **Impact of hydrotalcite preparation methods onto 1,4-addition of saturated linear alcohols to acrylic compounds**
 Octavian D. Pavel, Rodica Zăvoianu, Emilian Angelescu, Florentina Neatu, Ruxandra Birjega, Florentina Teodorescu
 The International Symposium of the Romanian Catalysis Society, ROMCAT2013, Cluj-Napoca, Romania, May 29 – 31, 2013, pp. 128-129, poster P23
 15. **MgAlY layered double hydroxides as catalysts for organic syntheses catalysed by base sites**
 Octavian D. Pavel, Rodica Zăvoianu, Emilian Angelescu, Florentina Neatu
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 16. **The impact of the reconstruction effect on the structural properties of Mg_xAl-LDH materials and their catalytic activity in the oxidation of cyclohexene**
 Octavian D. Pavel, Rodica Zăvoianu
 4th EuCheMs Chemistry Congress, August 26 – 30, 2012, Prague, Czech Republic, poster P – 0649
<https://www.rsc.org/events/detail/7890/4th-euchems-chemistry-congress>
 17. **The influence of the drying environment on the “memory effect” exhibited by Mg/Al hydrotalcite structures**
 Octavian D. Pavel, Rodica Zăvoianu, Ruxandra Birjega, Guylene Costentin, Michel Che, Emilian Angelescu
 EuropaCat X, Glasgow, Scotland, 28 August - 2 Sept 2011, poster PTh123

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18. **Cyclohexene epoxidation with molecular oxygen and isobutyraldehyde on cobalt coordination polymer catalysts**
Emilian Angelescu, Rodica Zăvoianu, Octavian D. Pavel, Mihaela Badea, Ruxandra Bîrjega
EuropaCat X, Glasgow, Scotland, 28 August – 2 Sept 2011, poster PM215
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19. **Mg_{0.75}Al_{0.25} hydrotalcite (HT) synthesis without aging step catalyst for cyanoethylation reaction**
Octavian D. Pavel, Rodica Zăvoianu, Ruxandra Bîrjega, Emilian Angelescu, Mihaela Florea
9th International Symposium of the Romanian Catalysis Society ROMCAT 2010, "Gh. Asachi" Technical University of Iasi, Iasi, Romania, June 23 – 26, 2010, p. 120-121
20. **Modification induced by memory effect in physicalstructural characteristic of NiMgAl hydrotalcites**
Octavian D. Pavel, Emilian Angelescu, Ruxandra Bîrjega, Rodica Zăvoianu, Gheorghita Mitran
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21. **Decontamination of chloroethanes containing waste waters by catalytic oxidation**
Octavian D. Pavel, Gabriela Cârjă, Alexandru Pană, Adriana Urdă, Ioan Săndulescu
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22. **Memory effect of hydrotalcites Mg/Al promoted with La and Y: structural, textural and catalytic properties**
Octavian D. Pavel, Ruxandra Bîrjega, Michel Che, Guylene Costentin, Rodica Zăvoianu, Emilian Angelescu
Nanoporous Materials V (NANO-V), P-106, Vancouver, British Columbia, Canada, May 25 – 28, 2008, p. 198
23. **Hydration of mixed oxides Mg/Al obtained from corresponding hydrotalcites. Structural and catalytic properties**
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8th International Symposium of the Romanian Catalysis Society, ROMCAT2007, Bucharest, 21 – 23 June, p. 78 – 79; poster 10
24. **Mg/Al hydrotalcites obtained by synthesis and hydration of mixed oxides. Structural and catalytic properties**
Octavian D. Pavel, Emilian Angelescu, Ruxandra Bîrjega, Guylene Costentin, Michel Che, Rodica Zăvoianu
EUROPACAT VIII, 26 - 31 August Turku/Abo, Finland 2007, Catalysis for pharma and fine chemistry (homo- and heterogeneous catalysis), poster P5-39 <http://web.abo.fi/fak/tkf/tek/europacat8/index.html>

Co-author

1. **Interpenetrating polymer network hydrogels containing LDH, for the controlled release of inulin**
Marinela Victoria Dumitru, Anamaria Zaharia, Octavian D. Pavel, Ana Lorena Neagu, Iulia-Elena Neblea, Tanța-Verona Iordache, Andreea Miron, Anita Laura Chiriac, Andrei Sârbu, Rodica Zăvoianu
Symposium of International Chemical Engineering and Materials SICHEM 2024; POLITEHNICA Bucharest, Romania, 11 – 12 April, 2024; SC P03 (14:00–16:30 Poster Session (2nd Floor) Session C Biomaterials and composites in chemical and biochemical applications)
2. **Efficient removal of antibiotics from waste water by photocatalytically active supramolecular organic–inorganic magnetic composites**
Sabina G. Ion, Octavian D. Pavel, Nicolae Guzo, Mădălina Tudorache, Simona M. Coman, Vasile I. Parvulescu, Bogdan Cojocaru
15th European Congress on Catalysis, August 27 – September 1, 2023, Prague, Czech Republic; ENVP-P-007, Tuesday, August 29
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3. **Dehydrogenation of 1,4-butanediol over cobalt aluminate synthesized by the sol-gel method, in the presence of different solvents**
Gheorghita Mitran, D.-K. Seo, Octavian D. Pavel, Florentina Neațu, Mihaela Florea
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4. **Using lignocellulosic vegetal wastes as adsorbents for transition metals from wastewater**
Alina Tirsoaga, Rodica Zavoianu, Octavian D. Pavel, Anca Cruceanu, Oana T. Apreutesei, Carmen Tebrencu
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5. **Layered Double Hydroxides - polyethylene glycol diacrylate composite hydrogels for the controlled release of *Rhamnus Frangula* L phytoextract**
Anamaria Zaharia, Ana Lorena Neagu, Octavian Dumitru Pavel, Alina Tirsoaga, Iulia Elena Neblea, Sorin Viorel Dolana, Tanța Verona Iordache, Rodica Zăvoianu, Andrei Sârbu; 3rd International Conference on Bioengineering and Polymer Science Bucharest, ROMANIA - June 7-11, 2023 <http://www.bpc-apmg.upb.ro/index.html>
6. **High C2-C4 selectivity in CO₂ hydrogenation by particle size control of Co-Fe alloy nanoparticles wrapped on N-doped graphitic carbon**
Vasile I. Parvulescu, Lu Peng, Ana Primo, Bogdan Jurca, Octavian D. Pavel, Alvaro Gordillo, Hermenegildo Garcia
NAM28, The 28th North American Catalysis Society Meeting, June 18-23, Providence, RI, 2023, USA; <https://nam.confex.com/nam/2023/meetingapp.cgi/Paper/30573>
7. **Hydrogels based on natural polymers doped with LDH and phytoextract**
Marinela V. Dumitru, Tanta Verona Iordache, Ana L. Neagu, Anamaria Zaharia, Rodica Zavoianu, Octavian D. Pavel, Theodor Sandu, Andrei Sarbu
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8. **Cobalt and iron-based heterogeneous catalytic systems for malic acid conversion to value-added products**
Gheorghita Mitran, Adriana Urdă, Mihaela Florea, Octavian Dumitru Pavel, Florentina Neațu
Congerina Națională de Chimie, Ediția XXXVI, Călimănești – Căciulata, Vâlcea, România, 5th - 7th October 2022, P.S.IV. - 19, p. 187, <https://chimcomplex.com/cnchim-2022/>
9. **Malic acid oxidation over Fe doped Co₃O₄ catalysts**
Gheorghita Mitran, Octavian Dumitru Pavel, Urdă Adriana
22nd Romanian International Conference on Chemistry and Chemical Engineering Sinaia, ROMANIA - September 7 – 9, 2022, S1-P-10; <https://riccce22.chimie.upb.ro/management/content/doc/program/full-program/doc.pdf>
10. **The preparation method influence on the cobalt-based catalysts properties and activities**
Gheorghita Mitran, Dong-Kyun Seo, Octavian D. Pavel, Adriana Urda
The 13th International Symposium of The Romanian Catalysis Society, ROMCAT2022, June 22 – 24, 2022, Băile Govora, Romania, p. 131-132, P30; <https://www.chimie.unibuc.ro/romcat/index.html>
11. **Supramolecular organic-inorganic magnetic materials with efficient effect on photocatalytic removal of antibiotics from water**
Sabina Ion, Nicolae C. Guzo, Octavian D. Pavel, Madalina Tudorache, Simona M. Coman, Vasile I. Parvulescu, Bogdan Cojocaru
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12. **Valmet chiral-base ligands and their copper(II) complexes as organo, homogeneous and heterogeneous catalysts for Henry, cyanosilylation and aldol coupling reactions**
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- Tudorache, Bogdan Cojocaru, Octavian D. Pavel, Pascal Granger, Marius Andruh, Vasile I. Pârvulescu
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13. **On the biobased polyamide with flame retardant properties**
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NeXT-Chem "TEHNOLOGII INOVATOARE TRANS-SECTORIALE" Ediția a III-a ROMÂNIA, București, România, 27 – 28 mai 2021
 14. **Mechanical properties of the polyamide on hybrid 2D reinforcing agents**
A. Afilipoaei, Zina Vuluga, A.-R. Gabor, G.-M. Teodorescu, M. Cărbăuleașu, Rodica Zăvoianu, Octavian D. Pavel, Alexandra-E. Stamate, Mihai C. Corobea
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 15. **Malic acid oxidative dehydrogenation over iron-cobalt mixed oxides**
Gheorghita Mitran, Mihaela Florea, Octavian-Dumitru Pavel, Adriana Urda, Florentina Neațu
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 16. **Photocatalytic decontamination of wastewaters using hybrid organic inorganic magnetic supramolecular catalysts**
Razvan Mihailescu, Octavian D. Pavel, Sabina Ion, Madalina Tudorache, Simona M. Coman, Vasile I. Parvulescu, Bogdan Cojocaru
CoSolMat 11th – 15th October 2021, Bucharest, Romania, p. 93-94, Poster 5
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 17. **Chiral-copper(II) complexes anchored on carboxylated graphene oxide for catalytic applications**
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Andrei Slabu, Octavian D. Pavel, Florina Teodorescu
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Madalina Tudorache, Sabina Ion, Cristina Lite, I. Zgura, A. Galca, A. Bodescu, M. Enache, G. Maria, Vasile I. Parvulescu, Octavian D. Pavel
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 20. **Mg/Al mixed oxides with nanodispersed Y species obtained from LDH precursors utilized as catalysts for chalcone and flavone synthesis**
Alexandra E. Stamate, Rodica Zăvoianu, Octavian D. Pavel, Elena Bacalum, Ruxandra Birjega, Ioan C. Marcu
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Bogdan Cojocaru, Sabina G. Ion, Octavian D. Pavel, D. Avram, Vasile I. Pârvulescu
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Iunia Podolean, Octavian D. Pavel, Haresh G. Manyar, Kathryn Ralphs, Peter Goodrich, S.F. Rebecca Taylor, Vasile I. Parvulescu, Christopher Hardacre
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 25. **Glycerol steam reforming over alumina supported molybdena and molybdena-ceria catalysts**
Gheorghita Mitran, Florentina Neatu, Octavian D. Pavel, Mihaela Florea
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 26. **Nanocomposite dodecylsulfate-modified Mg-Al layered double hydroxide thin films deposited via laser technique**
Angela Vlad, Ruxandra Birjega, Andreea Matei, M. Dumitru, Maria Dinescu, Rodica Zavoianu, Octavian D. Pavel, Mihai C. Corobea
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Andreea Matei, Ruxandra Birjega, Angela Vlad, Mihaela Filipescu, Rodica Zavoianu, Octavian D. Pavel, Mihai C. Corobea, Maria Dinescu
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Rodica Zăvoianu, Octavian D. Pavel, Anca Cruceanu, Mihaela Florea, Andrei Sârbu, Teodor Sandu, Ruxandra Birjega, Luminița Mara
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Anca Cruceanu, Rodica Zavoianu, Octavian D. Pavel, Mihaela Florea, Corina Bradu
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 30. **Hybrid layered double hydroxides as base catalysts for 1,4-addition of n-octanol to 2-propenenitrile**
Rodica Zavoianu, Octavian D. Pavel, Ruxandra Birjega, Anca Cruceanu, Mihaela Florea, Corina Bradu, Mihai C. Corobea
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33. **Organo-layered double hydroxides composite thin films deposited by laser techniques**
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 36. **Green olefins oxidation vs. hydrotalcites preparation methods**
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 37. **Sustainable synthesis of Zn-Al-LDH catalysts for ecofriendly manufacture of epoxides**
Rodica Zăvoianu, Octavian D. Pavel, Corina Bradu, Anca Cruceanu, Ruxandra Birjega, Mihai C. Corobea
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Florentina Neatu, Roxana Marin, Nicoleta Petrea, Vasile Somoghi, Mihaela Florea, Octavian D. Pavel, Vasile I. Pârvulescu
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 42. **Influence of lanthanides concentration in Mg₃Al_(1-y)Ln_y - LDHs (Ln = La, Y) on their reconstruction ability and catalytic activity for epoxidation**

- Rodica Zăvoianu, Octavian D. Pavel, Emilian Angelescu, Corina Bradu, Anca Cruceanu, Ruxandra Birjega
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 Vasile I. Parvulescu, D.S. Gopala, R.R. Bhattacharjee, R. Haerr, B. Yeginoglu, Octavian D. Pavel, Bogdan Cojocaru, R.M. Richards
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50. **Mg/Al hydrotalcites: structural and catalytic behaviour in heterogeneous asymmetric cyanoethylation**
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59. **Cyclohexene epoxidation with molecular oxygen on cobalt modified Mg/Al hydrotalcite catalysts**
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CIVIS - ORAL COMMUNICATIONS

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Webinar Series: Current Progress in the Development of Novel Antimicrobials
June 7 – 8th, 2022, Online event - Zoom platform
Domain 18: Pharmacy, pharmacology, nutrition, nanosciences and nanoformulations
June 8, 2022, 12⁰⁰ – 13⁰⁰
2. **Hydrogen generation from non-edible waste bioresources**
Module 1. Energy-environmental sustainability
Online event - Zoom platform
August 12, 2022 16⁰⁰ – 18⁰⁰
3. **The synthesis of nanomaterials by Top-Down and Bottom-Up approaches**
International Summer School on Nanoscience & Nanotechnologies; NANOSUM 2024, June 16-21, Blaubeuren, Germany
Monday, June 17, 1400-1615
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19 / 12 / 2024

Associate Professor Dr. Habil
PAVEL Dumitru-Octavian
