

CURRICULUM VITAE



Name: **MANGALAGIU IONEL**

Citizenship: Romanian

Position and degree hold: Professor, Ph-D

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Researcher ID (Web of Science): <https://www.webofscience.com/wos/author/record/H-2421-2017>

Researcher ID (Scopus): <https://www.scopus.com/authid/detail.uri?authorId=55761251200>

Researcher ID (Google): <https://scholar.google.com/citations?user=aqwSylkAAAAAJ&hl=en>

✓ Education:

- 1970-1978, Primary and the secondary school in my village;
- 1978-1982, Medical High School, Iasi;
- 1983-1984, Military service;
- 1985-1990, Chemical Technological Faculty, Chemistry- Physics Section, **Polytechnic Institute of Iasi, Romania.**

✓ Achievements:

- 1982, Medical instructor diploma;
- 1990, **Bachelor** in Chemistry and Physics;
- 1990: **Assisting professor, Organic Chemistry Dep., Alexandru Ioan Cuza University of Iasi, Romania;**
- 1995: **Lecturer**, the same department;
- 1996: **Doctor's Degree** in Chemistry. Title of Ph-D thesis: "*New Ylide Compounds In the 1,2-Diazine Series*". Ph-D supervisor: Prof.dr.doc. **MAGDA PETROVANU**;
- 1997: **Associate professor**, the same department;
- 2001: **Professor**, the same department;
- 2002: **Ph-D Supervisor.**
- 2006-2012, 2016-2020: **Member of the National Council for Titles, Diplomas and Certificates of Romania-Chemistry**
- 2012-2016: **President of the Appeal National Council for Titles, Diplomas and Certificates of Romania-Chemistry;**
- 2007-2011, 2017-2020: **Member of the National Research Council of Romania;**
- 2000-2004: **Vice dean** of faculty; **2005-2008: Head of Organic and Biochemistry Department; 2012-2016: Dean of Chemistry Faculty;**
- 2016- present: **Vice-Rector for Research, Alexandru Ioan Cuza University of Iasi;**
- **since 2002: Erasmus - Socrates coordinator** for international cooperation with T.U. Braunschweig, University of Konstanz, Universite D'Angers, Università degli Studi di Cagliari.

✓ Invited speaker to foreign universities:

- ✓ '*Microwave Assisted Reactions in Organic Synthesis*', Technische Universität Braunschweig, Germany, August 27-th **2005**;
- ✓ '*Coronands*', Technische Universität Braunschweig, Germany, July 18-th **2007**.
- ✓ '*Coronands and Azaheterocycles: New Approches*', Technische Universität Braunschweig, Germany, June 27-th **2008**.

- ✓ ‘*Nanomaterials with Azaheterocycles Skeleton*’, Universite D’Angers, France, July 10-th **2008**.
- ✓ “*Nitrogen Heterocycles: Old Stories, new Approaches and Perspectives*”, University of Konstanz, Konstanz, October 16-th **2014**.
- ✓ “*Five and Six Member Ring Azaheterocycles as Intelligent Building Blocks for Multiple Tasks*”, University of Florence, Italy, June 20-th **2016**.
- ✓ “*Azaheterocycles: chemistry and applications*”, Institutul de Chimie al Academiei de Stiinte al Moldovei, Chisinau, October 16-th **2016**.
- ✓ “*New Achievements in the Five and Six Member Ring Azaheterocycles: Chemistry and Applications*”, Technische Universität Braunschweig, Germany, August 31-st **2017**.
- ✓ “*New achievements in medicinal chemistry of five and six member ring nitrogen heterocycles*”, Universite Paris Sud, Paris, France, July 12-th **2018**.
- ✓ “*Azaheterocycles*”, University of Viena, Viena, Austria, December 2, **2022**.
- ✓ „*Antimicrobial and Anticancer Activity of Hybrid and Chimieric Azaheterocycles*”, Technische Universität Braunschweig, Germany, August 31-st **2023**.

✓ **Honours, Awards, Fellowships, Membership of Professional Societies (selections)**

- **July - August, 2008. Visiting Professor:** Technische Universität Braunschweig, University of Konstanz, Institut für Chemie, Germany; field: ‘Supramolecular Chemistry’ respectively “Highly Fluorescent Materials through Nonconventional methods”; with **Prof. Wolf Du Mont** and **Prof. Ulrich Groth**, respectively;
- **July- August, 2007. Visiting Professor:** Technische Universität Braunschweig, University of Konstanz, Germany; field: ‘Supramolecular Chemistry’ respectively “Highly Fluorescent Materials through Microwave Chemistry”; with **Prof. Mathias Tham** and **Prof. Ulrich Groth**, respectively;
- **July- August, 2006. Visiting Professor,** University of Konstanz, Germany; field: ‘Solid-Phase Peptide Synthesis’; with Prof. Michael Przybylski;
- **June – September, 2003. DAAD–NATO Fellowship. Visiting Professor:** Ludwig Maximilianus University Munchen, Institut für Organische Chemie; field: ‘Preparation of Polyfunctional Aryl, Alkenyl and Heteroaryl Magnesium Reagents and their Applications in Organic Synthesis’; with **Prof. Paul Knochel**;
- **August - September, 1998. NATO Fellowship.** Postdoctoral study: NATO Advanced Study Institute in Management of Research&Development&Inovation in Chemistry, Budapest, Hungary;
- **September 1994 - August 1995. Scholarship in Norway,** University of Oslo, (competition: The Council of Europe for the East European countries (China including). Specialization in the field of “Application of Organometallic Chemistry to Synthetic Problems”, under the supervising of **prof. dr. Kjell Undheim**.
 - **December 19, 2011. Costin D. Nenitescu Medal, for Outstanding Achievements in Chemistry.** Roumanian Society of Chemistry;
 - **2023. “Ioan Tanasescu” Award for Excellence in Organic Chemistry.** American Chemical Society (ACS) in association with the Romanian International Chapter;
 - **October 26-th, 2006. Alexandru Ioan Cuza University of Iasi Award for Excellence in Research.** Alexandru Ioan Cuza University Days, Iasi, Romania;
 - **October 26-th, 2021. Alexandru Ioan Cuza University of Iasi Award for Excellence in Research.** Alexandru Ioan Cuza University Days, Iasi, Romania;
 - **October 26-th, 2023. Alexandru Ioan Cuza University of Iasi Award for Excellence in Research.** Alexandru Ioan Cuza University Days, Iasi, Romania;
 - **May 12-14, 2011. Excellency Diploma in Research, Technical University of Moldova** for “Research in the field of Azaheterocycles”. **Euroinvent 2011**, Iasi, Romania;
- **December 4-6, 2015. Silver Medal.** Patent awarded: “11,12-Bis-p-tolyl-piridazonil-drim-5(6),8(9)-diene-7-one with antifungal and antibacterial properties”, **Kaohsiung International Invention and design Expo 2015**, Kaohsiung, Taiwan;
- **November 25-28, 2015. Silver Medal.** Patent awarded: “Stimulation procedure of grapes crop” **Infinvent 2015**, Chisinau, Moldova;
- **November 8-10, 2012. Gold Medal.** Patent awarded: Procedure for obtaining of oil nanodispersion with regenerative capacity. **37-th International Invention Show**, Sibenik, Croatia;
- **June 8-10, 2011. Gold Medal.** Group of patents awarded, **Inventica 2011**, Iasi, Romania;
- **June 04-06, 2009. Excellency Diploma and Gold Medal.** Patent awarded: “Steroidal Glycosides: Biological Active Compounds of Vegetal Origin”. **Inventica 2009**, Iasi, Romania;

- **June- July, 2008.** Erasmus/Socrates mission to: Universite D'Angers (France, July 13-25) and University of Konstanz, Institut fur Chemie (Germany, June 30 – July 12);
- **July- August, 2007.** Erasmus/Socrates mission to: TU Braunschweig (Germania, July 13-19) and University of Konstanz, Institut fur Chemie (Germania, July 20 – August 5);

Member of International Society of Heterocyclic Chemistry;
Member of the Romanian Chemical Society;
Member of the Romanian Society of Biomaterials;
Member of the American Chemical Society (ACS ID- 2405478);
Member of the American Nano Society;
Member of the Royal Society of Chemistry (ID- 712835).

✓ **Other Achievements:**

▪ **Grants reviewer for:**

- FP7 program (since 2008) and Horizont 2020 (since 2015) Cod: EX2002B025670;;
- INTAS program of grants (EU), since 2002;
- CNCSIS, CEEX, PNCDI program of grants of Romanian Ministry of Research, since 2001.

▪ **Member in Editorial Board / Guest Editor of the following journals**

- *Current Medicinal Chemistry*, Bentham Science, UK;
- *Molecules (Organic Chemistry Section)*, MDPI, Switzerland;
- *Mini-Reviews in Organic Chemistry*, Bentham Science, UK;
- *Current Microwave Chemistry*, Bentham Science, UK;
- *Acta Chimica Iasi* (former *Analele Stiintifice ale Universitatii "Al.I. Cuza" Iasi*), Ed. Univ. Alexandru Ioan Cuza Iasi, Iasi, Romania;
- *The Bulletin of the Polytechnic Institute from Iasi, Chemistry and Chemical Engineering Section*, Ed. Univ. Tehn. Ghe. Asachi Iasi, Iasi, Romania;
- *New Frontiers in Chemistry*, Ed. Univ. de Vest Timisoara, Timisoara, Romania;
- *Journal of the European Society of Mathematical Chemistry*, European Society of Mathematical Chemistry, <http://chem.ubbcluj.ro/jesmc/>;
- *Studia Universitatis Moldaviae*, Ed. Universitatii de Stat din Moldova, ISSN 1814-3237 ISSN online 1857-498X <http://studiamsu.eu/stiinte-ale-naturii/>

- **Guest Editor, Special Issues:**

1. Microwave Assisted Reactions: A Modern Useful Tool in Medicinal Chemistry (2019), *Molecules*, MDPI;
2. Huisgen 3+n dipolar cycloaddition reactions: an accessible and useful tool in modern organic and heterocycle synthesis Chemistry (2020), *Molecules*, MDPI;
3. Research Progress and Application of Natural Compounds (2022), *Molecules*, MDPI.

▪ **Reviewer to the following journals (by Publishers):**

- European Journal of Medicinal Chemistry, Elsevier, Netherlands;
- Ultrasonics Sonochem, Elsevier, Netherlands;
- Comptes Rendus Chimie, Elsevier, Netherlands;
- Bioorganic & Medicinal Chemistry, Elsevier, Netherlands;
- Bioorganic & Medicinal Chemistry Letters, Elsevier, Netherlands;
- Tuberculosis, Elsevier, Netherlands;
- Arabian Journal of Chemistry, Elsevier, Netherlands;
- Inorganica Chimica Acta, Elsevier, Netherlands;
- Future Medicinal Chemistry, Future Sci, UK
- ChemMedChem, RSC, UK;
 - Monatshefte für Chemie, Springer, Germany;
 - Medicinal Chemistry Research, Springer, Germany;
 - Research on Chemical Intermediates, Springer, Germany;
 - Central European Journal of Chemistry, Springer, Germany;
- Journal of Heterocyclic Chemistry, Wiley, New York, USA;
- Journal of Physical Chemistry, ACS, USA;
- Heteroatom, Wiley, New York, USA;
- Plos One, USA;

- Arkivok, Arkat Gainesville, FL, USA;
- Polycyclic Aromatic Compounds, Taylor&Francis, US
 - Current Organic Chemistry, Bentham Science, UK;
 - Current Medicinal Chemistry, Bentham Science, UK;
 - Current Microwave Chemistry, Bentham Science, UK;
 - Letters in Drug Design and Discovery, Bentham Science, UK;
 - Journal of Chemistry, Hindawi Publishing Corporation, Egipt/USA
- Molecules, MDPI, Switzerland;
- Metabolites, MDPI, Switzerland;
- Amino Acids, MDPI, Switzerland;
- Molbank, MDPI, Switzerland;
- International Journal of Molecular Sciences, MDPI, Switzerland;
 - Revue Roumaine de Chimie, Ed. Academiei, Bucuresti, Romania;
 - Roum. Biotech. Lett., Ed. Universitatii Bucuresti, Romania;
 - Analele Stiintifice ale Universitatii Alexandru Ioan Cuza Iasi, Ed. Univ. Iasi, Iasi, Romania.
 - New Frontiers in Chemistry, Ed. Univ. de Vest Timisoara, Timisoara, Romania;
 - Studia UBB Cluj, Cluj, Romania.

✓ **Language skills:** English- very good; French- good

✓ **Didactic and Scientific Background**

• **Didactic Career:**

- Beginning with the academic year 1995- 1996 I'm teaching the following courses:
 1. **Relation between Structure and Biological Activity of the Organic Compounds** (at the 3rd year Biochemistry Section and Master students).
 2. **Natural Products** (at the 4th year of Chemistry Section and year Biochemistry Section).
 3. **Organic Chemistry I** (at the 2nd year of Chemistry Section).
 4. **Amphiphilic Compounds** (Master)
 5. **Microwave and Ultrasounds Assisted Reactions** (Doctoral School).
 6. **Drug Design** (Master).

• **Research Career:**

Main field of research:

Heterocyclic Compounds,

with three area of expertise:

1. **Chemistry and Health: Nitrogen Heterocycles Chemistry and Medicinal Chemistry;**
2. **Chemistry and Nanoscience: Nitrogen and/or Oxygen Macrocycles, Supramolecular Chemistry;**
3. **Chemistry and Sustainable Development: Eco-friendly Reactions using Microwave and Ultrasounds Assisted Reactions.**

Inside of these areas the following main aspects are followed:

a. Chemistry and Health: the development of new useful reactions for the synthesis of heterocyclic compounds, and in particular, reactions involving reactive species such as cycloimmonium ylides. The main outcomes of these directions are: new nitrogen heterocycles biologically active [antimicrobials (antituberculosis including), anticancer and growth factors for agriculture], new nanobiomaterials with and without nitrogen heterocycle moieties, etc.;

b. Chemistry and Nanoscience: in this field our efforts are orientated in the area of oxa- and oxaza- coronands, nano-electronics and nano-devices, nanobiomaterials (for dentistry including), new highly fluorescent materials, chemical captors (chemosensors);

c. Chemistry and Sustainable Development: microwave and ultrasounds assisted reactions; these technologies allow us to develop environmental friendly methods, with lower waste and environmental friendly impact ["green" chemistry];

Keywords: heterocycles, diazine, ylides, oxa- oxaza- coronands, microwave, ultrasounds, cycloadditions, fluorescent materials, nanobiomaterials, antituberculosis, antimicrobials, anticancer, nano-electronics and nano-devices (logic gates, chemosensors), "green" chemistry.

• **Significant Results in research:**

Present research team: 4 postdocs, 5 PhD students, 8 master and graduating students;

- **16 Ph-D students finished their thesis under my supervision:**

Moldoveanu C. (July 2007), Zbancioc Ghe. (July 2007), Butnariu R. (June 2008), Balan A.M. (May 2009), Florea O. (October 2009), Risca M. (December 2009), Bejan V. (February 2010), Mantu D. (November 2010), Astefanei D. (December 2013), Maftei D. (September 2014), Al-Matarneh C. (October 2016), Olaru A. (July 2018), Tiru L. (September 2018), Sardaru M. (November 2020), Diaconu D. (February 2021), Bucur St. (September 2021).

- **Foreign doctoral researchers in my labs:**

Florian Roßner (Goethe University Frankfurt), Germany (2021)

Renata Eftenyeva (Yuriy Fedkovych National University Cernauti, Chemical Dep.), Ukraine (2015-2016)

Nejjar El Ansari Zineb (Université Abdelmalek Essaadi, Faculté des Sciences de Tétouan) Morocco (2014)

- **Postdocs in my labs:**

Edu Carolina, Moldova (2013); Antoci Vasilichia, Romania (2012-2013); Chibac Andreea, Romania (2014-2015); Mantu Dorina, Romania (2014-2015); Murariu Manuela, Romania (2014-2015); Zbancioc Ana Maria, Romania (2014-2015).

• **Total scientifically papers published:**

- over **200**, from which papers in **ISI quoted publications (Web of Science-Core Collection) over 150**, almost half of them in journals from first quartile **Q1 (top 25%)** and second quartile **Q2 (top 26-50%)** (Bioorg. Med. Chem., Curr. Med. Chem., Eur. J. Med. Chem., Eur. J. Org. Chem., Future Med. Chem, J. Heterocyclic Chem., J. Phys. Chem., Macromolecules, Molecules, Synthesis, Synlett, Tetrahedron, Tetlett., Ultrason. Sonochem., etc.);

- papers presented to meetings: over 150 (over 100 international).

• **Citations, from which:**

Hirsh index:

- **28**, Web of Science-Core Collection (Number of citations: over 2000)
- **28**, Scopus (Number of citations: over 2500)
- **33**, Google (Number of citations: over 3500)

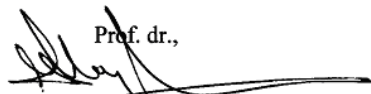
- **Invited speaker to foreign universities - 11;**
- **Invited *Plenary lectures* (representative)- over 50;**
- **Patents: 14.**

• **International grants as director. Total number- 4**

- 1 HORIZONT 2020 grant as WP leader (2021-2023);
- 1 FP7 grant as director (2010-2013);
- 1 NATO grant as director (2006-2007);
- 1 bilateral grant as director with Moldova (2010-2013);
- Management Committee member (Romanian representative) in the COST Actions CM1307 (2014-2018) and MP0901 (2009-2013);

• **National grants as director. Total number- 18**

- 1 : PN-III-P3-3.6-H2020- International and European Cooperation grant as director (2022-2023, with Romanian Ministry of Research Education);
- 1 PN-III-PCE Exploratory Research grant as director (2021-2023, with Romanian Ministry of Research Education);
- 2 PN-II Ideas grant as director (2009-2011, 2012-2016, with Romanian Ministry of Research Education);
- 2 CEEX grants as director (2005-2008, 2006-2008, with Romanian Ministry of Research Education);
- 1 CEEX grant as partner director (2006-2008, with Romanian Ministry of Research Education) ;
- 1 grant with World Bank as director (1999);
- 8 grants type A (with Romanian Ministry of Research Education) as director: 1998, 2003, 2004, 2005; 2006, 2007, 2008.

Prof. dr.,

 Ionel MANGALAGIU

