

CURRICULUM VITAE



Name: **MANGALAGIU IONEL**

Citizenship: Romanian

Birth Date: July, 06, 1964, CIORTESTI village, district of IASI, Romania.

Position and degree hold: Professor, Ph-D

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- **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 Department, Alexandru Ioan Cuza University of Iasi, Romania;
 - **1995: Lecturer**, the same department;
 - **1996: Doctor's Degree** in Chemistry. The title of my theses was "New Ylide Compounds In the 1,2-Diazine Series", lead by Prof.dr.doc. **MAGDA PETROVANU**;
 - **1997: Associate professor**, the same department;
 - **2001: Professor**, the same department;
 - **2002: Ph-D Supervisor.**
- **2006-2012, 2016-: 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-: Member of the National Research Council of Romaninan;**
- **2000-2004: Vice dean** of faculty;
- **2005-2008: Head of Organic and Biochemistry Department;**
- **2012-2016: Dean** of faculty;
- **since 2002: Erasmus - Socrates coordinator** for international cooperation with Technical University of Braunschweig (Technische Universität Braunschweig), Konstanz (University of Konstanz, Institut für Chemie, Germany), Anger (Universite D'Angers, France) și Cagliari (Università degli Studi di Cagliari, Italy);

- **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 Aproches’, Technische Universität Braunschweig, Germany, June 27, **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, **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**.

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

- ✓ **July- August, 2008. Visiting Professor:** Technische Universität Braunschweig, University of Konstanz, Institut fur Chemie, Germany ; field: ‘Supramolecular Chemistry’ respectively “Highly Fluorescent Materials through Nonconventional methods”; **Prof. Wolf DuMont** and **Prof. Ulrich Groth** respectively;
- ✓ **July- August, 2007. Visiting Professor:** Technische Universität Braunschweig, University of Konstanz, Institut fur Chemie, Germany ; field: ‘Supramolecular Chemistry’ respectively “Highly Fluorescent Materials through Microwave Chemistry”; **Prof. Mathias Tham** and **Prof. Ulrich Groth** respectively;
- ✓ **July- August, 2006. Visiting Professor,** University of Konstanz, Germany; field: ‘Solid-Phase Peptide Synthesis’; Prof. Michael Przybylski team;
- ✓ **July- August, 2005. Visiting Professor,** University of Konstanz, Germany; field: ‘Solid-Phase Peptide Synthesis’; Prof. Michael Przybylski team;
- ✓ **June – September, 2003. DAAD – NATO Fellowship. Visiting Professor:** Ludwig Maximilianus University Munchen, Institut fur Organische Chemie; field: ‘Preparation of Polyfunctional Aryl, Alkenyl and Heteroaryl Magnesium Reagents and their Applications in Organic Synthesis’; Prof. Paul Knochel team ;
- ✓ **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;**
 - **May 10-12, 2012. “Grand Prize Euroinvent”, for outstanding achievements in research. Euroinvent 2012,** Iasi, Romania;
 - **May 12-14, 2011. “Excellency Diploma”, Technical University of Moldova for “Research in the field of Azaheterocycles”. Euroinvent 2011,** Iasi, Romania;
 - **May 07-th, 2010. “Special Award”, Croatian Association of Inventors, Euroinvent 2010,** Iasi, Romania;
 - **October 26-th, 2006. “Al.I.Cuza University Award for Excellency in Research”, Al.I.Cuza University Days,** Iasi, Romania;
- **May 16-18, 2015. “Gold Medal”.** Patent awarded: “11,12-Bis-p-tolyl-piridazonil-drim-5(6),8(9)-diene-7-one with antifungal and antibacterial properties.”, **Euroinvent 2015,** Iasi, Romania;

- **November 8-10, 2012. "Gold Medal"**. Patent awarded: Procedure for obtaining of oil nanodispersion with regenerative capacity. **37-th International Invention Show**, Sibenik, Croatia;
- **September 27-29, 2012. "Gold Medal"**. Patent awarded: Procedure for obtaining of oil nanodispersion with regenerative capacity. **VII International Salon of Invention and Technologies "New Time"**, Sevastopol, Ukraine;
- **June 8-10, 2011. "Gold Medal"**. Group of patents awarded. **Inventica 2011**, Iasi, Romania;
- **May 12-14, 2011. "Gold Medal"**. Patent awarded: Procedure for obtaining of oil nanodispersion with regenerative capacity. **Euroinvent 2011**, Iasi, Romania;
- **May 07-09, 2010. "Gold Medal"**. Patent awarded: "Using steroidal glycoside purpureagitozid – 3-o-β-D-glucopyranosyl..., in quality of compound with antitumoral activity". **Euroinvent 2010**, 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;
- **May 07-09, 2009. "Gold Medal"**. Patent awarded: "Steroidal compound with antitumoral activity". **Euroinvent 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 (Germany, July 13-19) and University of Konstanz, Institut fur Chemie (Germany, July 20 – August 5);

Member of the Romanian Chemical Society- since 1999;
 Member of International Society of Heterocyclic Chemistry- since 2017;
 Member of the Romanian Innovation Society- since 2005;
 Member of the Romanian Society of Biomaterials- since 2006;
 Member of the American Chemical Society- since 2008;

- **Other Achievements:**

- reviewer (referee) for:
 - FP7 program, since 2008;
 - INTAS program of grants (EU), since 2002;
 - CNCSIS, CEEX, PNCDI program of grants of Romanian Ministry of Research, since 2001.
- **Member in Editorial Board** of the following journals
 - *Mini-Reviews in Organic Chemistry*, Bentham Science, UK;
 - *Current Microwave Chemistry*, Bentham Science, UK;
 - *Revista de Chimie Bucuresti*, Syscom, Bucuresti, Romania;
 - *Analele Stiintifice ale Universitatii "Al.I.Cuza" Iasi- Acta Chimica Iasi*, Ed. Univ. "Al.I.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;
 - *Internatiol Journal of Conservation Science*, Ed. Univ. "Al.I.Cuza" Iasi, Iasi, Romania;
 - *New Frontiers in Chemistry*, Ed. Univ. de Vest Timisoara, Timisoara, Romania;
 - *Internatiol Journal of Criminal Investigation*, Ed. IT Code (on line: www.icji.eu), Romania.
- reviewer to the following journals (*by Publisher*):
 - European Journal of Medicinal Chemistry, Elsevier, UK;
 - Ultrasonics Sonochem, Elsevier, UK;
 - Comptes Rendus Chimie, Elsevier, UK;
 - Bioorganic & Medicinal Chemistry, Elsevier, UK;
 - Bioorganic & Medicinal Chemistry Letters, Elsevier, 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;
- Current Organic Chemistry, Bentham Science, UK;
- Current Microwave Chemistry, Bentham Science, UK;
- Letters in Drug Design and Discovery, Bentham Science, UK;
- Arkivok, Arkat Gainesville, FL, USA;
- Molecules, Taylor&Francis, USA;
- Journal of Chemistry, Hindawi Publishing Corporation, Egypt/USA
- Revue Roumaine de Chimie, Ed. Academiei, Bucuresti, Romania;
- Roum. Biotech. Lett., Ed. Universitatii Bucuresti, Romania;
- Revista de Chimie, Ed. Syscon, Bucuresti, Romania;
- Analele Stiintifice ale Universitatii "Al.I Cuza" Iasi, Ed. Univ. Iasi, Iasi, Romania.

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

Didactic and Scientific Background

- **Didactic Carer:**

- 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:**

Main field of research:

Chemistry of Heterocyclic Compounds,

with three areas 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 nanobiomaterials with and without nitrogen heterocycle moieties, new nitrogen heterocycles biologically active [potential drugs (anticancer, anti-HIV, antituberculosis, antimicrobials) and growth up factors for agriculture], modified oligo- and poly-peptides (including anti- Alzheimer), etc.;

b. Chemistry and Nanoscience: in this field our efforts are orientated in the area of oxa- and oxaaza- 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- oxaaza- coronands, microwave, ultrasounds, cycloadditions, fluorescent materials, nanobiomaterials, antituberculosis, antimicrobials,

anticancer, anti-HIV, nano-electronics and nano-devices (logic gates, chemosensors), "green" chemistry.

- **Significant Results:**

Research team: 4 postdocs, 5 pH-D students, 8 master and graduating students;

- 11 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), Maftai D. (September 2014), Cristina Al-Matarneh (October 2016).

Former postdocs:

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

Former doctoral researchers:

Nejjar El Ansari Zineb (Université Abdelmalek Essaadi, Faculté des Sciences de Tétouan) Maroco (2014)
 Renata Eftenyeva (Yuriy Fedkovych National University Cernauti, Chemical Dep.,) Ukraina (2015-2016)

- **total scientifically papers: over 150, from which:**

- papers in ISI quoted publications (Web of Science- Thomson Reuters): over 100 (Bioorg. Med. Chem., Eur. J. Med. Chem., Eur. J. Org. Chem., Heterocycles, J. Heterocyclic Chem., J. Phys. Chem., Lett. Drug Des. Discov., Macromolecules, Synthesis, Synlett, Tetrahedron, Tetlett., Ultrason. Sonochem., etc.);
- papers presented to meetings: over 150 (over 100 international);

- **Citations, from which:**

Hirsh index:

- ISI Thomson: 21 (Sum of Times Cited: over 1100)
- Scopus: 21 (Sum of Times Cited: over 1400)
- Google: 24 (Sum of Times Cited: over 1600)

- **Invited speaker to foreign universities - 8;**
- **Invited *Plenary lectures* (representative)- over 20;**
- **Patents: 13.**

International grants

- 1 FP7 grant as director (2010-2013, value 194.000 Euro);
- Management Committee member (Romanian representative) in the COST Actions CM1307 (2014-2018) and MP0901 (2009-2013);
- 1 NATO grant as director (2006-2007, value 5000 Euro);
- 1 bilateral grant as director with Moldova (2010-2013, value 10.000 Euro);

National grants

- two PN-II Ideas grant as director (Value: 450.000,00 Euro each) (with Romanian Ministry of Research Education);

- two CEEEX grants as director (Value: 900.000,00 Euro both) (with Romanian Ministry of Research Education);
- 1 CEEEX grant as partner director (Value: 100.000,00 Euro) (with Romanian Ministry of Research Education) ;
- 1 grant with World Bank as director (Value: 90.000,00 \$ SUA);
- 8 grants type A (with Romanian Ministry of Research Education) as director: 1998 (value 3.000 Euro), 2003 (value 2.000 Euro), 2004 (value 3.000 Euro), 2005 (value 5.000 Euro) ; 2006 (value 10.000 Euro), 2007 (value 10.000 Euro), 2008 (value 10.000 Euro).

Prof.dr.,
Ionel Mangalagiu