








Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Zalaru Christina Marie**
Address(es) University of Bucharest, Organic Chemistry, Biochemistry and Catalysis Department, 90-92 Panduri Road 030118, Bucharest
Telephone(s) 
Fax(es) 
E-mail 
Nationality 
Date of birth 
Gender F

Desired employment / Occupational field

Work experience

Dates 1991-2000
Occupation or position held Assistant Professor in Organic Chemistry Department
Main activities and responsibilities Teaching and research activity in Organic Chemistry
Name and address of employer Faculty of Chemistry, Dept. of Organic Chemistry, Bucharest
Type of business or sector Teaching and research activity
Dates 2000-2003
Occupation or position held Lecturer in Organic Chemistry Department
Main activities and responsibilities Teaching activity (Organic Chemistry) ; Research in organic synthesis.
Name and address of employer University of Bucharest, 90-92 Panduri Road., Bucharest
Dates 2003-present
Occupation or position held Associate Professor in Department of Organic Chemistry, Biochemistry and Catalysis
Main activities and responsibilities Teaching and research activity

Education and training

Dates 1982-1987
Title of qualification awarded Bachelor
Title of qualification awarded PhD
"2-N-pyrazol-1-yl-acetanilides" (no. 3774 / 10.05 2000)
Name and type of organisation providing education and training University of Bucharest

Personal skills and competences

Mother tongue(s)

Romanian

Other language(s)

Self-assessment

European level ()**English**French**German*

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user
B2	Independent user	B2	Independent user	B1	Independent user	B2	Independent user	B2	Independent user
B2	Independent user	B2	Independent user	B1	Independent user	B2	Independent user	B2	Independent user

(*) [Common European Framework of Reference for Languages](#)

Organisational skills and competences

Technical skills and competences

Physical chemistry methods used for characterization of substances : UV-VIS, FTIR, RMN spectroscopy, Mass Spectrometry, GC-MS spectroscopy

Computer skills and competences

Experience in programming (Pascal), Chemistry programs (ChemDraw, Isis) abstracts database: Current Contents, Chemistry Citation Index (ISI), Medline), office: (MSOffice), graphical applications: (Adobe PhotoShop, communications: (InternetExplorer, OutlookExpress, Netscape)

Artistic skills and competences

Replace this text by a description of these competences and indicate where they were acquired. (Remove if not relevant, see instructions)

Other skills and competences

Teaching: Courses taught

Organic Chemistry. Fundamentals (II)
Polyfunctional Compounds and Heterocycles
Biomolecules Chemistry Applications
Organic pollutants in water
Natural compounds with therapeutic action**Additional information**

Member of Romanian Chemistry Society

Annexes

List any items attached. (Remove heading if not relevant, see instructions)

RESEARCH INTEREST

Synthesis and physico-chemical characterization of new biologically active heterocyclic compounds: 2-(pyrazol-1-yl)-substituted acetanilide with local anesthetic, analgesic, antiarrhythmics activities; Mannich bases derived from pyrazoles, triazoles, benzimidazoles, with antidiabetic, antimicrobial, anti-tumor activities;

Synthesis and physico-chemical characterization of new Schiff bases derived from formyl-camphor, formyl-menthone, formyl-carvone with aromatic amines.

Resolution of enantiomers

The study of coordination properties of substituted pyrazolylacetanilides with 3d metals;

The study of coordination properties of azometines with 3d metals;

The extraction from active compounds from different autochthonous plants by conventional methods

The isolation triterpenic saponins from *Hedera helix* L. with anti-tumor activity.

The isolation, degradation and physico-chemical characterization of piperine from pepper;

RESEARCH EXPERIENCE AND EMPLOYMENT

1994-2000 Assistant Professor, University of Bucharest, Department of Organic Chemistry

The synthesis and the study of some organic compounds and complexes of some compounds carbocycles and heterocycles with anorganic and organic acceptors.

The synthesis and the study of some complexes of a cyclic and heterocyclic compounds with anorganic acceptors

Synthesis of acetanilides with potential local anesthetic, analgesic and antiarrhythmic activities.

2003 Associate Professor, University of Bucharest, Department of Organic Chemistry, Biochemistry and Catalysis

The synthesis and the physico-chemical characterization of new biologically active heterocyclic compounds: Mannich bases derived from pyrazoles, triazoles, benzimidazoles, with antidiabetic, antimicrobial, anti-tumor activities.

Teaching activity and research projects on:

New structures with possible action antidiabetic/against obesity beta agonist receptors – 3 - adrenergics; multidisciplinary researches

2004-2007 International cooperation with Professor Mino R. Caira, University of Cape-Town, South Africa:

XRD structural determinations of pyrazolylacetanilide derivatives

2004-2008 International cooperation with researcher Branko Drakulić, Department of Chemistry, Chemistry Institute, Technology and Metallurgy; Belgrad, Serbia and Montenegro.

QSAR studies on the pharmacological activity of pyrazolylacetanilide derivatives

SIGNIFICANT SKILLS

Laboratory experience: Organic Synthesis: Synthesis and purification of organic compounds. Characterization of new heterocyclic compounds with RMN, MS, IR and UV-Vis spectroscopy.

PARTICIPATION TO PROJECTS, GRANTS AND RESEARCH CONTRACTS

Research-Projects	Function	Period
1. MCT 3009/1994 “The synthesis and the study of some molecular compounds and complexes of some compounds carbocycles and heterocycles with anorganic and organic acceptors”	Member	1994-1997
2. CNCSIS 586/1/1997 “The synthesis and the study of some complexes of a cyclic and heterocyclic compounds with anorganic acceptors”	Member	1997-2000
3. Contract external “Benefit of Medicinal Agents”, University of Cape Town	Member	2002
4. Contract CEEEX nr. 51/2005 “New structures with possible action antidiabetic/against obesity beta agonist receptors–3-adrenergics multidisciplinary researches” (VIASAN)*	Project Manager Partner 2 UB	2005-2007
5. Exploratory research Contract IDEI PN-II-ID-PCE-2001-3 “Multifunctional stable radicals in supramolecular high-spin architectures and materials	Member	2011-2013
6. Contract RSRP#IZERO-142144/1 Co financed PN-II IDEI RSRP	Member	2012-2013
7. Contract PED 2019 nr. 381PED/2020 Technologies for obtaining of natural products with immunostimulatory properties	Project Director	2020-2022

PUBLISHED PAPERS

Articles Total 33_ISI_29 BDI_4

29. M. Marinescu, L.O. Cinteza, G.I. Marton, M.C. Chifiriuc, M.Popa, I. Stanculescu, **Ch. Zalaru**, C.E. Stavarache, Synthesis, density functional theory study and in vitro antimicrobial evaluation of new benzimidazole Mannich bases, *BMC Chemistry*, 2020, 14 (1), 45 Open Access.
28. A.M. Toader, S.D. Zaric, **Ch. Zalaru**, M. Ferbinteanu, The structural details of aspirin molecules and crystals, *Current Medicinal Chemistry*, 2020, 27 (1), 99-120.
27. R. Tatia, **Ch Zalaru***, O. Craciunescu, L. Moldovan, A. Oancea, I. Calinescu, Optimization of triterpene saponins mixture with antiproliferative activity, *Applied Sciences (Switzerland)*, Open Access, 2019, 9 (23), 5160 <https://doi.org/10.3390/app9235160>
26. C.M. Buta, M.M. Radu, A. Mischie, **Ch.Zalaru**, G. Ionita, M. Ferbinteanu, Experimental and computational characterization of structural and spectroscopic features of mixed ligand copper complexes-prototypes for square-pyramidal stereochemistry. *Polyhedron* **2019** 170 771-782.
25. R. Tatia, **Ch. Zalaru**, I. Tarcomnicu, L. Moldovan, O. Craciunescu, I. Calinescu, Isolation and characterization of hederagenin from *Hedera helix* L. Extract with antitumor activity. *Rev. Chim. (Bucharest)* **2019** 70 (4) 1157-1161.
24. **Ch. Zalaru***, F. Dumitrascu, C. Draghici, I. Tarcomnicu*, R. Tatia, L. Moldovan, M.C. Chifiriuc, V. Lazar, M. Marinescu, M.G. Nitulescu, M. Ferbinteanu. Synthesis, spectroscopic characterization, DFT study and antimicrobial activity of novel alkylaminopyrazole derivatives. *J. Mol. Struct.* **2018** 1156 12-21.
23. M. Marinescu, D.G. Tudorache, G.I. Marton, **Ch. Zalaru**, M. Popa, M.C. Chifiriuc, E. Stavarache, C. Constantinescu, Density functional theory molecular modeling, chemical synthesis, and antimicrobial behavior of selected benzimidazole derivatives. *J. Mol. Struct.* **2017** 1030 463-47.
22. C.C. Crisan, M. Buleandra, I. Calinescu, **Ch. Zalaru**, I.G. David, I.A. Badea, Chemical composition of the aerial part and fruits of *Coreopsis tinctoria*. *Chem. Nat. Comp.* **2015** 51(3) 571-572.
21. M. Buleandra, C. C. Crisan, I. Calinescu, **Ch. Zalaru**, I. G. David, I. A. Badea, Rapid Analysis of the volatile Components of *Gaillardia aristata* and *G. x grandiflora*. *Chem. Nat. Comp.*, **2015** 51(4) 787-789.
20. M. Marinescu, **Ch. Zalaru**, M. Florea, P. Ionita, Thermal behavior of several stable hydrazyl free radicals and of their parent hydrazines, *Journal of thermal analysis and calorimetry.* **2014** 116 259-263.
19. **Ch. Zalaru***, F. Dumitrascu, C. Draghici, M. Iovu, M. Marinescu, I. Tarcomnicu, G. M. Nitulescu, Synthesis and biological screening of some novel 2-(1H-pyrazol-1-yl)-acetamides as lidocaine analogue. *Indian J.Chem. B* **2014**, 53B (6) 733-739.
18. **Ch. Zalaru**, C.C. Crisan, I. Calinescu, Z. Moldovan, I. Tarcomnicu, S.C. Litescu, R. Tatia, L. Moldovan, D. Boda, M. Iovu, Polyphenols in *Coreopsis tinctoria* Nutt. fruits and the plant extracts antioxidant capacity evaluation. *Central European Journal of Chemistry* **2014** 12 (8) 858-867.
17. C. C. Crișan, I. Călinescu, T. Dobre, **Ch. Zălaru**, Calculation of Separation Processes used for the Extraction of Active Principles from Fruits of *Coreopsis tinctoria* Nutt. *Rev. Chimie (Bucuresti)* **2013** 64(4) 366-371.
16. Branko J. Drakulić, **Christina Zalaru**, Mircea Iovu, Acute toxicity of substituted 2-(1H-pyrazol-1-yl)acetanilides and related commercially available local anesthetics toward mice. A GRIND/ALMOND-based 3-D QSAR study. *QSAR Comb. Sci.* **2009** 28 (2) 206-217.
15. **Ch. Zalaru**, M. Caira, F. Dumitrascu, C. Draghici, E. Cristea, Synthesis, spectroscopic, and X-ray structural characterization of pharmacologically active substituted pyrazolyl-acetanilides. *Struct. Chem.* **2009** 20 377-385.
14. **Ch. Zalaru**, F. Dumitrascu, C. Draghici, E. Cristea, I. Tarcomnicu Pharmacologically active 2-(1H-pyrazol-1-yl)acetamides, , *Arkivoc*, **2009** (ii), 308-314.
13. **Ch. Zalaru**, F. Dumitrascu, I. Tarcomnicu, M. Neata, New pyrazole derivatives with potential local anesthetic activity, *Rev. Roum.Chim.* **2008** 53 (4) 267-271.
12. **Ch. Zalaru**, M. Caira, M. Iovu, E. Cristea, X-ray structures and pharmacological activities of lidocaine derivatives. *Struct. Chem.*, **2008** 19 917-922.
11. **Ch. Zălaru**, M. Iovu, F. Zălaru, A. Meghea, M. Giurginca, M. Plăveț, Coordination compounds of Cu(II) with some substituted 2-(3,5-dimethyl-pyrazol-1-yl)-methyl-acetanilides as ligands. *J. Serb. Chem. Soc.* **2007** 73 (3) 251-257.
10. **Ch. Zalaru**, F. Dumitrascu, C. Draghici, New pyrazole derivatives as lidocaine analogue. *Rev. Chim. (Bucuresti)* **2007** 58 (11) 1054-1056.

9. **Ch. Zălaru**, G. Putina, F. Dumitrașcu, C. Drăghici, New Mannich bases with pharmacological activity. *Rev. Chimie (Bucuresti)* **2007** 58 (8) 773-775.
8. **Ch. Zălaru**, M. R. Caira, M. Iovu, E. Cristea, X-ray structures of pharmacologically active 2-(3,5-dimethyl-pyrazol-1-yl)-methylacetanilides. *J. Chem. Crystallogr.* **2007** 37 623-628.
7. F. Zălaru, F. Dumitrașcu, **Ch. Zălaru**, M. Contineanu, Coordination compounds of some metals (II) with 1-phenyl-pyrazole-3,4-dicarboxylic acid. *Rev. Chim. (Bucuresti)* **2007** 58 (3) 332-334.
6. F. Zălaru, F. Dumitrașcu, **Ch. Zălaru**, M. Plăveț, M. Contineanu, Coordination compounds of Cu(II), Ni(II), Zn(II) with 1-(2-methyl-phenyl)-pyrazole-3,4-dicarboxylic acid. *Rev. Roum.Chim.* **2006** 51 (11) 1053-1057.
5. **Ch. Zălaru**, M. R. Caira, M. Iovu, E. Cristea, X-ray structures of new substituted 2-(pyrazol-1-yl)-2'-nitroacetanilides. *J. Chem. Crystallogr.* **2004** 34 (5) 317-324.
4. M. Iovu, **Ch. Zălaru**, F. Dumitrașcu, C. Drăghici, M. Moraru, E. Cristea, New substituted 2-(pyrazol-1-yl)-dialkylacetanilides with potential local anesthetic and antiarrhythmic action. Part. II., *Farmaco* **2003** 58 301-307.
3. A. Ciobanu, F. Zălaru, **Ch. Zălaru**, F. Dumitrașcu, C. Drăghici, Coordination compounds of Cu (II) with Schiff bases derived from formylmenthone and aromatic amines, *Acta Chimica Slovenica* **2003** 50 441-450.
2. M. Iovu, **Ch. Zălaru**, F. Dumitrașcu, C. Drăghici, E. Cristea, "New 2-(pyrazol-1-yl)-*o*-, *m*-, *p*-methylacetanilides with potential local anesthetic and antiarrhythmic action. Part I.", *Farmaco*, **2000**, 55,362-368.
1. F. Zălaru, C. Cercasov, A. Meghea, **Ch. Zălaru**, C. Jalea, Cu(II) Coordination compounds with thioamides. *Rev.Roum.Chim.* **1991** 36 11-12, 1279-1285.

Articles BDI

4. A.M. Toader, M.C. Buta, F. Cimpoesu, A.I. Toma, **Ch. Zalaru**, L. Cinteza, M. Ferbinteanu, New Syntheses, Analytic Spin Hamiltonians, Structural and Computational Characterization for a Series of Tri-, Hexa- and Hepta-Nuclear Copper (II) Complexes with Prototypic Patterns, 3(1), 411-439, 2021 Chemistry
3. R. Tatia, A. Toma, L. Moldovan, **Ch. Zalaru***, I. Calinescu, Phytochemical and antiproliferative potential of hederia helix extract fractions 83(1), 91-100, 2021, UPB
2. M. Marinescu, **Ch. Zalaru**, P. Ionita, A computational study on some hydrazyl radicals and congeners. *UPB Scientific Bulletin, Series B:Chemistry and Materials Science* **2014** 76(1) 175-184. ISSN:1454-2331.
1. C.C. Crisan, I. Calinescu, **Ch. Zalaru**, Z. Moldovan, Techniques for extracting polyphenols from *Coreopsis tinctoria* nutt. Fruits. **2013**, *UPB Scientific Bulletin, Series B:Chemistry and Materials Science* **2013** 75(4) 169-178. ISSN:1454-2331.

PUBLISHED BOOKS

1. Organic Chemistry biologically active compounds practical works, authors: **Christina Marie Zalaru**, Petre Ionita, Irina Zarafu, Maria Marinescu, Ioana Nicolau, Lavinia Ruta, Editia a doua, Ed. Univ. Bucuresti, **2016**, (ISBN-978-606-16-0742-6)
2. Organic chemistry Exercises, authors: **Christina Zalaru**, Maria Marinescu, Ed. Univ. Bucuresti, **2013**, (ISBN-978-606-16-0325-1)
3. Organic environmental pollutants' Ed. a II-a, authors: Elena Popa, **Christina Zalaru**, Ion Baciu, Ed. Univ. Bucuresti, **2013**, (ISBN-978-606-16-0228-5)
4. Organic Chemistry Course Edition 2-review and add, authors: **Christina Zalaru**, Cornelia Cercasov, Adalgiza Ciobanu; Ed. Univ. Bucuresti, **2012**, (ISBN 978-606-16-0085-4)
5. Organic environmental pollutants' authors: Elena Popa, **Christina Zalaru**, Ion Baciu, Ed. Univ. Bucuresti, **2007**, (ISBN-978-973-737-262-8)
6. Course of organic chemistry – for the specialization of Radiochemistry, authors: **Christina Zalaru**, Cornelia Cercasov, Adalgiza Ciobanu; Ed. Univ. Bucuresti, **2003** (ISBN 973-575-762-1)
7. Practical works of organic chemistry for the specialization of Radiochemistry, author: **Christina Zalaru**, Ed. Univ. Bucuresti, **2003**, (ISBN 973-575-734-6)

Date: 07.03.2022

Christina Marie Zălaru

