

## Europass Curriculum Vitae



### Personal information

First name(s) / Surname(s)

**Carmen Mihaela Topală**

Address(es)

Telephone(s)

Mobile:

Fax(es)

E-mail

[carmen.topala@upb.ro](mailto:carmen.topala@upb.ro), [carmen.topala@upit.ro](mailto:carmen.topala@upit.ro), [carmen.topala@gmail.com](mailto:carmen.topala@gmail.com)

Nationality

Romanian

Date of birth

Gender

female

### Desired employment / Occupational field

**Associate Professor**

### Work experience

Dates

September 2006 onwards

Occupation or position held

Associate Professor

Main activities and responsibilities

teaching the courses and laboratory work for the following academic disciplines Organic Chemistry and Biochemistry; scientific research of organic compounds

Name and address of employer

Faculty of Science, Physical Education and Informatics, University of Pitesti, Romania

Type of business or sector

Education and Scientific research

Dates

March 1999- September 2002

Occupation or position held

lecturer

Main activities and responsibilities

teaching the courses and laboratory work for the following academic disciplines Organic Chemistry and Biochemistry; scientific research of organic compounds

Name and address of employer

Faculty of Science, Physical Education and Informatics, University of Pitesti

Type of business or sector

Education and Scientific research

Dates

March 2003- September 2003

Occupation or position held

lecturer

Main activities and responsibilities

teaching the courses and laboratory work for the following academic discipline Organic Chemistry

Name and address of employer

Faculty of Chemistry, University of Bucharest

Type of business or sector

Education and Scientific research

Dates March 1994-September 2006  
Occupation or position held assistant  
Main activities and responsibilities laboratory work for the following academic discipline Organic Chemistry  
Name and address of employer Faculty of Science, University of Pitesti  
Type of business or sector Education and Scientific research

Dates September 1992 – March 1994  
Occupation or position held High school teacher  
Main activities and responsibilities Teaching chemistry, biology  
Name and address of employer Economic High School Pitesti  
Type of business or sector Education

## Education and training

2023- Erasmus Teaching Mobility - in Universitat Politecnica de Valenci, Spain  
2021 Erasmus Teaching Mobility - Training to develop skills and competencies necessary for academic career in The University of Birjand, Iran  
2019 Erasmus Teaching Mobility - Training to develop skills and competencies necessary for academic career in Tarbiat Modares University, Teheran, Iran  
2016- Erasmus Teaching Mobility - in Universitat Politecnica de Valenci, Spain;  
2014 - Erasmus Training Mobility - Training to develop skills and competencies necessary for academic career in Universita Degli Studii Della Basilicata, Italia;

Dates September 1996- May 2002  
Title of qualification awarded PhD. Thesis Organic Chemistry  
Principal subjects/occupational skills covered Synthesis of new steroid derivatives with nitrogen and sulfur  
Name and type of organisation providing education and training University of Bucharest, Faculty of Chemistry  
Level in national or international classification ISCED 6

Dates June 1992  
Title of qualification awarded Bachelor of Science  
Principal subjects/occupational skills covered Organic Chemistry  
Name and type of organisation providing education and training University of Bucharest, Faculty of Chemistry  
Level in national or international classification ISCED 5

## Personal skills and competences

Evaluator The Romanian Agency for Quality Assurance in Higher Education (ARACIS)  
Training „Strategic Planning for University Leaders”, Bucuresti 2010

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

European level (\*)

**Language**

English

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
B1	B1	B1	B1	B1	

(\*) Common European Framework of Reference for Languages

Social skills and competences

Responsibility, Teamwork skills, communication skills, negotiations

Organisational skills and competences	Problem identification capacity, problem solving capacity, Systemic thinking, research and planning skills.
Technical skills and competences	Computer aided design, modelling, simulation
Computer skills and competences	Microsoft Office (Word, Excel, Power Point), ISIS DRAW, CHEM DRAW, CHEM ChemSketch - ACD/Labs FTIR analysiss SPECTRA MANAGER
Artistic skills and competences	
Other skills and competences	Hoby: painting, bridge, Sports skiing
Driving licence	B category
<b>Additional information</b>	Publications: 70 ISI scientific papers, 20 conferences, 20 research projects, 7 student textbooks <b>Professional Affiliation:</b> Romanian Chemistry Society (SChR) – 2005 onwards; treasurer Arges subsidiary – SChR 2006- 2020; vice-president Arges subsidiary– SChR 2020-2025 Romanian Order of Biochemists, Biologists and Chemists (OBBCSSR) – 2016 onwards member of the Professional-Scientific, Education and Legislation OBBCSSR Commission
<b>Annexes</b>	<b>List of publications</b>

## Publications (selections)

### A. Books

1. C. Topală, Bazele Chimiei Organice, Ed. Universității din Pitești, 2010, 261p. ISBN: 987-606-560-174-1
2. C. Topală, Chimie organica. Functiuni simple - note de curs, 2010, 120 pag. ISBN 978-606-560-136-9
3. C. Topală, Biochimie medicală, Ed. Universitatii din Pitesti, 2009, 135 p, ISBN: 978-973-690-835-4
4. C. Topală, S. Anghel, Compuși organici volatili, Abordări teoretice, tehnice, legislative, Ed. Universitatii din Pitesti, 2009, 125p, ISBN: 978-973-690-876-7
5. C. Topala, Biochimie ecologica, Ed. Universitatii din Pitesti, 2007, 208 p, ISBN: 978-973-690-714-2

### B. Papers (selections)

1. A.V.F. Neculae, I. Matei, A. Precupaș, V.T. Popa, V. Tecuceanu, C.M. Topală, S. Marque, J.P. Joly, G. Ioniță, Interaction of N-acyl derivative of 4-phenoxyaniline spin label with bovine serum albumin in water and in trehalose solution, Organic & Biomolecular Chemistry, **2025**, <https://doi.org/10.1039/D5OB00186B>
2. M. Mandache, C.M. Topală, L.E. Vijan, S. Cosmulescu, The Characterization of Peach Pomace and the Influence of Its Incorporation on the Chemical Composition of Biscuits. Appl. Sci. **2025**, 15, 6983. <https://doi.org/10.3390/app15136983>
3. F.D. Stamin, L.E. Vijan, C.M. Topală, S.N. Cosmulescu, The Influence of Genotype, Environmental Factors, and Location on the Nutraceutical Profile of *Rosa canina* L. Fruits. Agronomy **2024**, 14, 2847. <https://doi.org/10.3390/agronomy14122847>
4. N. A. Șuțan, A. Paunescu, C. Topala, C. Dobrescu, M.C. Ponopal, L.C. Soare, R. Tamaian, Aconitine in Synergistic, Additive and Antagonistic Approaches. Toxins **2024**, 16, 460. <https://doi.org/10.3390/toxins16110460>
5. O.A. Luțu, L.C. Soare, I. Fierăscu, R.C. Fierăscu, C.M. Dobrescu, A. Păunescu, C.M. Ponopal, C.M. Topală, L.E. Vijan, I. Deliu, A.D. Negrea, D.Ș. Vilcoci, G. Cîrstea, F. Aldea, S.O. Honțaru, A.N. Șuțan, Phytotoxicity, cytogenotoxicity and antimicrobial potential of extracts with gold-silver bimetallic nanoparticles obtained from pteridophyte spores, Caryologia, **2024**, 7(8), 65-82
6. L.E. Vijan, I.C. Mazilu, C. Enache, S. Enache, C.M. Topala, Botanical Origin Influence on Some Honey Physicochemical Characteristics and Antioxidant Properties, Foods **2023**, 12, 2134. <https://doi.org/10.3390/foods12112134>
7. C.M. Topală, L.D. Tătaru, ATR-FTIR Spectroscopy Coupled with Chemical and Chemometric Analysis to Distinguish Between Some Sweet Wines, Rev. Chim., 2019, 70(7), 2355-2361
8. E. M. Modan, C.M. Ducu, C.M. Topala, S.G. Moga, D.A. Negrea, A.D. Plaiasu, Nanostructured Iron Oxide Powders by Microwave Assisted Synthesis, 2021, Journal of Science and Arts, 4(57), 1081-1094
9. N.A. Șuțan, A.N. Matei, E. Oprea, V. Tecuceanu, L. D. Tataru, S.G. Moga, D.Ș. Manolescu, C.M. Topală, Chemical composition, antioxidant and cytogenotoxic effects of *Ligularia sibirica* (L.) Cass. roots and rhizomes extracts, Caryologia. International Journal of Cytology, Cytosystematics and Cytogenetics, 2020, 73(1): 83-92, 2020
10. C.M. Topală, A. G. Plăiașu, C. M. Ducu, S. G. Moga, Structural Characterization of ZnO and Al Doped ZnO Powders Synthesis in Aqueous Solutions, Rev. Chim., 2019, 70(9), 3232-3235

11. C. M. Topala, A. Paunescu, L.C. Soare, ATR-FTIR Spectral Analysis of Ferns Using as Fingerprint for Identification of Fern Species, *Rev. Chim.*, 2019, 70(3), 875-880, 2019
12. C. M. Topală, L.D. Tătaru, Rapid Method for the Discrimination of Romanian Wines Based on Mid-Infrared Spectroscopy and Chemometrics, *Rev. Chim. (Bucharest)*, 2018, 69(2), 469-473.
13. C. M. Topală, L. D. Tătaru, ATR-FTIR Study Of Thyme And Rosemary Oils Extracted By Supercritical Carbon Dioxide, *Rev. Chim.(Bucharest)*, 2016, 67(5), 842-846
14. L.E. Vijan, C. M. Topală, Study of Ribavirin - Nucleic Acids Interaction, *Chemical Engineering Communications*, 2016, 203,(12), 1562-1571, 2016, 1562-1571, DOI: 10.1080/00986445.2016.1153469
15. M. V. Neacșu, G. Ioniță, C. Topală, E. Oprea, V. Tecuceanu, I. Matei, Poly(ethylene glycol)/b-cyclodextrin covalent gel networks: host matrices for studying radical processes in plant extract-riboflavin systems following UV irradiation, *Chem. Pap.*, 2016, DOI 10.1007/s11696-016-0047-x
16. C.M. Topală, L.D. Tătaru, Infrared Spectra of Green Arabica Coffee Extraction using Supercritical Carbon Dioxide and Soxhlet Technique, *Rev. Chim.(Bucharest)*, 2015, 66(8), 1128-1131
17. C.M. Topală, Temperature Effects on the FTIR Spectra of Ribavirin, *Rev. Chim.(Bucharest)*, 2013, 64(3)
18. C.M. Topală, Temperature Effect on the FTIR Spectra of Tyrosine Derivatives, *Rev. Chim.(Bucharest)*, 2012, 63(11), 1096-1098
19. C. Topala, E. Dumitru, C. Draghici, Spectral Study of Some Cholesteryl Carbamates, *Rev. Chim. (Bucuresti)*, 2010, 61, 6, 557-562
20. C. Topala, E. Dumitru, C. Draghici, Synthesis of new cholesteryl butyrates, *Rev. Chim. (Bucuresti)*, 2009, 60(12), 1306-1308
21. C. M. Topală, S. Anghel, Temperature Effects on the FTIR Spectra of nematic Liquid Crystals, *Annals. Food Science and Technology*, 2010, vol. II (2), 162-165
22. C. Topala, S. Anghel, Studies on ATR spectra of mesogenic cholesteryl carbamates, *Optoelectronics and Advanced Materials – RC*, 2009, 3(11), 1213-1216
23. C. Topală, L. Vijan, The Characterizing of the Interaction of Amphotericin B with Cholesteryl Esters, *Journal of Molecular Liquids*, 2009, 147(1-2), 135-138
24. L.E. Vijan, C. Topală, C. Drăghici, M. Conci, The Interaction of Amphotericin B with Cholesteryl Trifluoromethylphenyl-carbamate, *Rev. Chim. (Bucuresti)*, 2009, 60(2), 142-146
25. C. Topala, S. Anghel, Studies of ATR Spectra of Phenoxyphenylcholesteryl Carbamates, *Annals. Food Science and Technology*, 2009, 346-350
26. L. Vijan, C. Topala, B. Oprescu, S. Anghel, Spectral study of cholesteryl linoleate – amphotericin B interaction and behaviour of cholesteryl esters in electric field, *Optoelectronics and Advanced Materials – RC*, 2008, 2(9), 582-586
27. C. Topală, S. Anghel, B. Oprescu, G. Iacobescu, Optical method for studying phase transitions of thermotropic mesogenous substances, *Optoelectronics and Advanced Materials – RC*, 2008, 2(8), 482-487
28. L. E. Vijan, C. Topală, Spectral Study of the Amphotericin B – cholesteryl Linoleate Interaction, *Rev. Chim*, 2008, 59(7), 756-758
29. L.E. Vijan, C. Topală, Characterizing of the interaction of Amphotericin B with Cholesteryl Trifluoromethylphenyl-Carbamate by UV-visible Spectroscopy, *Rev. Chim.*, 2008, 59(3), 297-299
30. C. Topala, G. Iacobescu, B. Oprescu, C. Ducu, Optical and Thermo-electrical Effects in Newly Synthesised Cholesteric Compounds, *Material Science and Engineering C, Elsevier* 2007, 27, 1171-1173
31. C. Topală, Benedict Oprescu, The Behaviour of the Simple Lipides in an Electrical Field”, *Rev. Chim. (Bucuresti)*, 2006, 57(4), 344-346
32. C. Rosu, G. Iacobescu, C. Motoc, C. Topala, Thermally stimulated depolarization currents in a new cholesteric liquid crystal, *Modern Physics Letters B*, 2006, 20(13), 777-785
33. C. Topala, I. Baviu, C. Paraschivescu, C. Draghici, New derivatives of N-acetyl-L-tyrosine, *Rev. Chim. (Bucuresti)*, 2005, 56(4), 415-417
34. C. Topala, B. Oprescu, E. Oprea, Study of the *Salvia officinalis* L. vegetable extracts behaviour in electrical field, *Rev. Chim. (Bucuresti)*, 2005, 56(3), 258-261
35. C. Topala, V. Meltzer, C. Draghici, Steryl carbamates mesogens with a trifluoromethylphenyl moiety, *Rev. Chim. (Bucuresti)*, 2005, 56(2), 125-129
36. C. Topala, M.T. Caproiu, C. Draghici, Cholesteryl derivatives with a sulfonyl moiety, *Arkivoc*, 2005, 10, 63-70
37. B. Oprescu, C. Topala, Instabilities of biological cells induced by generating some ionic substances within them, *Rev. Chim. (Bucuresti)*, 2004, 55(7), 550-554
38. B. Oprescu, C. Topala, Lipides behavior in electric field. II. Mesogeneous sterides and glycerol mixtures, *Rev. Chim. (Bucuresti)*, 2004, 55(5), 341-345
39. B. Oprescu, C. Topala, The lipids behaviour in electrical field. I. Fatty acids, cholesterol and glycerol mixtures, *Rev. Chim. (Bucuresti)*, 2004, 55(2), 112-117
40. B. Oprescu, C. Topala, Liquid crystals. 9. The influence of the electric dipolar moment of the terminal mesogeneous groups on the temperatures corresponding to the phase transitions of some termotrope sterolic esthers, *Rev. Chim. (Bucuresti)*, 2003, 54(9), 739-742
41. C. Topala, C. Baciui, V. Meltzer, C. Ionita, C. Draghici, The characterization of some fluorophenyl-cholesterylcarbamates and their interaction, with cyclodextrines, *Rev. Chim. (Bucuresti)*, 2003, 54(5), 402-405
42. V. Meltzer, C. Topala, E. Pincu, Mesomorphic properties of phenoxiphenyl carbamates, *Rev. Roum. Chim.*, 2002, 47(8-9), 839-841
43. C. Topala, I. Baciui, V. Meltzer, C. Draghici, Substituted fitosterols with 5-nytrobenzo[B]tiophensulphone at C-3, *Rev. Chim. (Bucuresti)*, 2002, 53(7), 519-522
44. G. Ionita, C. Topala, V. Meltzer, E. Pincu, Study concerning the formation of some inclusion complexes of 3,4-dichlorophenil steroid carbamates with cyclodextrines, *Rev. Chim. (Bucuresti)*, 2001, 52(12), 753-757
45. C. Topala, G. Ionita, V. Meltzer, C. Draghici, Inclusion complex of steroidal heterocyclic compounds with cyclodextrins in aqueous solution and in the solid state, *Arkivoc*, 2002, 2, 87-96

## Research contracts (selections)

1. Optimization of the proces of virus elimination in the Horticulture Crops by in vitro Chemotherapy and Electrotherapy to chive EU requirements on environmental quallity and food products (SANOPLANT), (PCCA)- tip 1, 104/2012 - **Project Director**
2. Advanced technologies and materials for optoelectronics (OPTOMATEH), PN II-Capacities 126cp/l din 14.09.2007 **Project Manager**
3. Implementation and adaptation of environmental technologies in cultural cherry varieties and rootstocks on local values, environmentally sound and sustainable development, PNCDI2-Program 4, 2770/2008
4. Recovery of biomass and agricultural residues superior by new technical solutions and product development of an integrated system for soil fertilization, HIFER-biomass, PN II 21-013/18.09.2007
5. Heteroaromatic compounds stabilized by substitution with azulenes. synthesis, study of physical-chemical and electrochemical properties, used in technique of nonlinear transmission of light (NLO), Cex 05-D11-20/05.10.2005
6. Synthesis and study of the thermodynamic properties of liquid crystal substances with applications in science and technology fields, Grant of the Romanian Academy, GAR 55/2005, **Project manager**
7. Creșterea capacității instituționale de cercetare bioeconomică pentru exploatarea inovatoare a resurselor vegetale autohtone, în vederea obținerii de produse horticole cu valoare adăugată ridicată, PN-III-P1-1.2-PCCDI-**2017**-0332,
8. Proiect integrat de dezvoltare a unor tehnologii dedicate tratamentelor medicale avansate, Cod: Cod PN-III-P1-1.2-PCCDI-2017-0728 Contract 63PCCDI/2018
9. Diagnosticarea motorului de camion prin evaluarea uzurii uleiului de motor și emiterea de recomandări de mentenanță, proiect CIPCS 2021-**Project Manager**
10. PN-III-P4-ID-PCE-2020-0620. Nanoformulări topice ale extractelor vegetale selective cu proprietăți antiinflamatoare și analgezice performante 2020-2023
11. Proiect ADER 6.5.2: Evaluarea particularităților agrobiologice și a capacității oenologice a soiurilor cu valoare nutraceutică ridicată în scopul creșterii valorii adăugate a produselor și subproduselor viticole 2023-2026