

PERSONAL INFORMATION

Anamaria TODEA



WORK EXPERIENCE

February 2024- present

Associate Professor

University Politehnica Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Applied Chemistry and Engineering of Natural Organic Compounds Department, Bd. Vasile Pârvan 6, Timișoara, tel: +40-256-403063 <https://www.chim.upt.ro/ro>
Teaching and research activities.

March 2020- February 2024

Associate Researcher

University of Trieste, Department of Chemical and Pharmaceutical Sciences, Italy, Via Giorgieri 1 - 34127 Trieste, <https://dsf.units.it/en>
Assegnista di ricerca, Responsible for the synthesis and characterization of polyesters from renewables raw materials for industrial interests.

February 2018-present

Lecturer

University Politehnica Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Applied Chemistry and Engineering of Natural Organic Compounds Department, Bd. Vasile Pârvan 6, Timișoara, tel: +40-256-403063 <https://www.chim.upt.ro/ro>
Teaching and research activities.
Research activity focused on: Green route synthesis and characterization of furan based oligoesters in batch/continuous systems; Scaling-up studies for enzymatic processes, Microbial /enzymatic degradation of several polyesters; valorisation of lactose in cascade reaction systems

February 2016-February 2018

Assistant Professor

University Politehnica Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Applied Chemistry and Engineering of Natural Organic Compounds Department, Bd. Vasile Pârvan 6, Timișoara, tel: +40-256-403063 <https://www.chim.upt.ro/ro>
Teaching and research activities.
Main research directions: Chemical and enzymatic synthesis and characterization of polyesters; Stabilization of different hydrolases by covalent immobilization on different supports.

December 2013-February 2016

Research Assistant

Institute of Chemistry Timișoara of Romanian Academy, Bd. Mihai Viteazul Nr.24, 300223 Timisoara, ROMANIA, tel: +40-256-491818 fax: +40-256-491824 <http://acad-icht.tm.edu.ro/>
Research Activity: Magnetic nanoparticles synthesis and characterization. Dyes removal from wastewaters by using magnetic adsorbents. Stabilization of oxidative enzymes for organic dyes degradation.

EDUCATION AND TRAINING

October 2011-March 2015

PhD in Chemical Engineering

University Politehnica Timișoara, Faculty of Industrial Chemistry and Environmental Engineering
▪ Thesis Title: Enzymatic synthesis and characterization of novel polyester biomaterials (Summa cum laude award)

July 2014- September 2014

PhD Internship

Wageningen University and Research Centre, Food & Biobased Research, Division Biobased Products, The Netherlands
Synthesis and characterization of hydroxy-fatty acids co-polyesters by using immobilized lipases

October 2012-June 2013

PhD Internship

Wageningen University and Research Centre, Food & Biobased Research, Division Biobased Products, The Netherlands
▪ Enzymatic synthesis and characterization of hydroxy-fatty acids polyesters in organic media
▪ Purification and immobilization of oleate hydratase from *Elizabethkingia meningoseptica*

March 2011-August 2011

Master Thesis Research Activity

Institute of Biotechnology and Biochemical Engineering, Technische Universität Graz

- Thesis Title: Probing enzyme-substrate interactions at the catalytic subsite of *Leuconostoc mesenteroides* sucrose phosphorylase with site-directed mutagenesis: the role of Asp⁴⁹ and Arg³⁹⁵

October 2009-September 2011

Master of Science in Food Chemistry

Industrial Chemistry and Environmental Engineering Faculty, Politehnica University of Timișoara

- Biotechnology, Fermentation Processes, Spectroscopy, Design, Chromatography, Physical Chemistry of Interfaces, Food Additives, Toxicology and Legislation

October 2005 – June 2009

Bachelor of Science in Biochemical Engineering

Faculty of Chemistry and Chemical Engineering "Babes-Bolyai" University, Cluj-Napoca

- Biochemistry, Microbiology, Molecular Genetics, Genetic Engineering, Cell Biology, Bioprocess Engineering, Biocatalysis, Mass Transfer, Fluid Mechanics, Organic Chemistry

PERSONAL SKILLS

Mother tongue(s)

Romanian

Other language(s)

English

German

Italian

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
B1	B1	A2	A2	A2
Abschulsszertifikat, Babel Center, Timisoara				
A2	A2	A1	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Organisational / managerial skills

Planning and organizational skills.

Since October 2022 ITC Manager within the COmputationally assisted design of enZYMEs Cost Action, <https://cozyme.eu/itc-grants/>

- Co-supervisor for four PhD Students, 8 master's and 24 bachelor's students
- 2017 - 2020 - Responsible for laboratory safety
- 2017 - 2020 - Secretary of the Licence Committee for the BSc specialization "Control and Expertise of Food Products"
- 2016 - 2020 - Internship responsible for 3rd year students of the BSc specialization "Control and Expertise of Food Products"

Research Grants as Team Member

"Processi e pRodotti Innovativi di chiMica vErde", PRIME, Descrizione Intervento: P.O.R FESR 2014/2020 Asse I – Azione I.1b.2.2 - Regione Piemonte - Piattaforma Tecnologica per la Bioeconomia UNITS PI: Prof Lucia Gardossi.

Recyclable multilayer magnetic biocatalyst for synthesis of natural esters, PN-III-P2.2.1-PED-2016-0168, Contract nr. 5PED/2017.

Biocatalyst-click chemistry downstreaming tandem based innovative kit for optically pure fine chemicals synthesis, PN-II-PT-PCCA-2013-4-0734, contract 206/2014 (2014-2016).

Honours and awards

Excellence in Research Award for Young Research for the area of expertise "Biotechnology and Biocatalysis", December 2019

Professor Bologna Title, offered by the National Alliance of Student Organizations in Romania (ANOSR), May 2019

Award of excellence for the obtained results during the project: Increase the attractiveness and performance of doctoral training and postdoctoral researchers for Engineering Sciences – ATTRACTING POSDRU/159/1.5/S/137070

Technical skills

Chromatography Gas chromatography (GC); Gas chromatography- mass spectrometry (GC-MS); High-performance liquid chromatography (HPLC);

Spectroscopy: UV-Vis spectroscopy also coupled with stopped-flow devices; FT-IR spectroscopy; Matrix-Assisted Laser Desorption/Ionization- Time-of-Flight Mass Spectrometry MALDI-TOF MS

Protein purification techniques: Ionic exchange chromatography; Gel filtration chromatography; Affinity chromatography; Flash chromatography.

Molecular biology: Basic protein cloning and expression techniques; Basic PCR techniques; SDS page

Microbiology, enzymology, biocatalysis: Microbial grow techniques; Cell breaking techniques; Enzymatic activity assay; Biotransformation preparation and analysis, Enzyme stabilization by different techniques, mainly immobilization, enzymatic synthesis and characterization of macro-molecules, separation of chiral compounds by enzymatic kinetic resolution;

Computer skills

Computational analysis of protein by docking and molecular dynamics: Autodock, Autodock Vina Gromacs.

Processing spectral simulations: Mestre Nova;

3D Protein Processing: PyMOL, Viewer Lite, VMD.

Other Activities

▪ Internship at Farmec Gerovital (cosmetics company) Cluj-Napoca, summer 2008

▪ Participant of the "Work and Travel USA" program, summer 2007

Driving licence

▪ I am a holder of an Romanian drivers licence. Category B vehicle

Seminars

▪ 10.06.2021- 28.07.2021 Molecular Modelling Principles& Applications of Molecular Modelling to Biocatalysis by Dr. Sara Fortuna at University of Trieste, Trieste, Italy

▪ 13.09.2021 – 17.09. 2021, ICTP-SISSA-CECAM Workshop on Molecular Dynamics and its Applications to Biological Systems [(SMR 3627), Trieste, Italy-online

▪ 30.06.2021-18.10.2021 Management Course, British Academy of Business Communication, certificate serial no. BS 20385/2021.

▪ October 2015, Flow Chemistry Hands-On Workshop, organized by SYRRIS Ltd. & ANALITIC LABORATORY at Politehnica University Timisoara

▪ January 2013- participant at NIOK Master Course in Biocatalysis, Delft University of Technology and Radboud University, Nijmegen, The Netherlands.

▪ August 2011- participant at Biotransformations 2011 summer school, Bad Herrenalb, Germany

▪ I am a holder of an Romanian drivers licence. Category B vehicle

Membership

▪ European Federation of BIOTECHNOLOGY (www.efb-central.org)

▪ European Society of Applied Biocatalysis (<https://esabweb.org/>)

▪ International Union of Pure and Applied Chemistry (IUPAC)