



David Bălăceanu

Date of birth: 03/11/2000 | **Nationality:** Romanian | **Email address:**

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WORK EXPERIENCE

BABES-BOLYAI UNIVERSITY – CLUJ-NAPOCA, ROMANIA

DOCTORAL RESEARCHER – 15/10/2024 – 31/12/2024

Project Title: COF Materials and Metal@COF Hybrids for Smart Applications: Heterogeneous Catalysis and Single-Material Organic Solar Cells (SMOSCs)

Responsabilitati:

- Analysis and interpretation of results using advanced laboratory techniques and tools (e.g., spectroscopy, chromatography, etc.).
- Rigorous documentation of procedures and results, preparation of scientific reports, and contribution to publishing research papers in specialized journals.
- Maintenance of laboratory equipment and ensuring compliance with safety standards and best practices in research.
- Collaboration with the research team to develop experimental strategies and innovative solutions to technical challenges in the project.

RESEARCH ASSISTANT – 15/01/2025 – Current

Project Title: Dynamic Interactive Membranes -Toward Adaptive Selection of Functions : EVOLUTION

Responsibilities:

- Organic synthesis of molecular cages, including design, functionalization, and purification of target compounds.
- Structural characterization of synthesized molecular cages using standard analytical techniques.
- Water transport across lipid membrane vesicles, employing vesicle-based assays to evaluate transport efficiency and selectivity.
- Ion transport through membrane vesicles, including assay development, data collection, and analysis of transport behavior.

SMT OPERATOR (SURFACE-MOUNT TECHNOLOGY) – SYSTRONICS S.R.L. – 01/07/2016 – 01/10/2016 – ARAD, ROMANIA

In this company, I was responsible for preparing and programming industrial robots used to assemble base boards with specific components, which were later utilized in various electronic devices.

EDUCATION AND TRAINING

01/10/2024 – CURRENT Cluj-Napoca, Romania

PHD CANDIDATE Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering

Level in EQF EQF level 8

01/10/2022 – 07/2024 Cluj-Napoca, Romania

MASTER'S DEGREE Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering

Level in EQF EQF level 7

01/10/2019 – 07/2022 Cluj-Napoca, Romania

BACHELOR'S DEGREE Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering

Level in EQF EQF level 6

Level in EQF EQF level 4

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user***SKILLS**

Microsoft(Microsoft Word, Microsoft PowerPoint, Microsoft Excel, Microsoft Access) | Good knowledge of using ChemDraw and MestReNova software.

PROFESSIONAL SKILLS

01/10/2022 – CURRENT

Experience gained in the organic chemistry laboratory.

Synthesis of Organic Compounds: Performing complex chemical syntheses, with a focus on developing and optimizing reactions to obtain compounds of interest.**Purification of Compounds:** Using advanced purification techniques, such as chromatography and recrystallization, to ensure the production of high-purity products.**Structural Investigation:** Applying modern analytical methods, such as NMR, IR, and UV-Vis spectroscopy, for the characterization and confirmation of the structures of the synthesized compounds.**Anhydration of Organic Solvents:** Carrying out anhydration processes to obtain pure solvents, essential for various chemical reactions.**RECREATIONAL ACTIVITIES**

Hobbies

Professional Chess player registered with ACS Vados Arad.

Other hobbies: Football, table tennis, swimming, video games, and volleyball.