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Codruț-Răzvan Costinaș

Date of birth: 30/06/1998 | **Nationality:** Romanian | **Phone:** (+40) 729938741 (Mobile) | **Email:** codrut.costinas@ubbcluj.ro | **Address:** Cluj-Napoca, Romania (Home)

WORK EXPERIENCE

03/10/2024 – CURRENT Cluj-Napoca, Romania

ASSOCIATE LECTURER BABES-BOLYAI UNIVERSITY

- **Teaching activities** in accordance with contract no. 38446/30.09.2024
- **Preparation of materials** necessary for seminars and laboratory work.

03/10/2022 – 31/03/2023 Padova, Italy

RESEARCH ASSISTANT (ERASMUS MOBILITY) CNR - ICMATE

- **Erasmus traineeship project** on the subject of the potential use of **graphene oxide in cultural heritage applications**
- Performed **physico-chemical analysis** on graphene oxide stone coatings and mortar additives.
- Familiarized with specific requirements of **EU standards** for cultural heritage applications
- Part of an Italian team of multidisciplinary researchers

EDUCATION AND TRAINING

10/2023 – CURRENT Cluj-Napoca, Romania

PHD STUDENT Faculty of Physics - Babeș-Bolyai University

Thesis Nanomaterials and nanostructures for wound healing and drug delivery

09/2021 – 07/2023 Cluj-Napoca, Romania

MASTER DEGREE - SOLID STATE PHYSICS Faculty of Physics - Babeș-Bolyai University

The thesis discussed the dispersability of graphene oxide dispersions and its potential use as a protective coating for stone cultural heritage, in accordance with the related EU standards. Further capabilities have been obtained:

- Proficiency in **analysis techniques** used for stone coatings and mortar characterization
- Basic knowledge in using **Scanning Electron Microscopy** for non-conductive material (stone)
- Quantitative analysis using **UV-VIS spectroscopy**
- The capability of working in compliance with **EU standardized analysis**

Final grade 9.85 | **Thesis** Surface characteristics of graphene oxide: a potential protective coating for cultural heritage

09/2021 – 06/2023 Cluj-Napoca, Romania

PEDAGOGICAL MODULE (SECOND LEVEL) Departamentul pentru Pregătirea Personalului Didactic (DPPD)

09/2017 – 07/2021 Cluj-Napoca, Romania

LICENCE DEGREE - ENGINEERING PHYSICS Faculty of Physics - Babeș-Bolyai University

Advanced theoretical knowledge of **solid-state physics**, **nanotechnology**, **quantum physics**, and **spectroscopy**. Practical skills in applying the following structural characterization techniques:

- **Dynamic Light Scattering (DLS)**
- **Zeta Potential Measurements (M3-PALS)**
- **Fourier-Transform Infrared Absorbtion Spectroscopy**
- **Raman Spectroscopy**
- **X-Ray Powder Diffraction (XRD)**

Final grade 9.02 | **Thesis** Graphene Oxide stability - a novel two-step structural model (to be published)

09/2017 – 06/2020 Cluj-Napoca, Romania
PEDAGOGICAL MODULE (FIRST LEVEL) Departamentul pentru Pregătirea Personalului Didactic (DPPD)

08/2013 – 06/2017 Petroșani, Romania
BACHELOR DEGREE Colegiul Național „Mihai Eminescu”

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
FRENCH	A1	A2	A1	A1	A2
ITALIAN	A2	A2	A2	A2	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

DIGITAL SKILLS

European Computer Driving Licence ECDL | Good skills in document editing using LaTeX | Good programming skills in C | Basic programming skills in Python | Daily user of data analysing and graphics software (OriginPro and Matlab)

ACHIEVEMENTS

Scholarships, competitions, and conferences

- Poster presentation at **IC-ANMBES 2022** (Brașov, Romania)
- **Scientific scholarship** for 2 semesters (2021-2022)
- **Performance scholarship** for 1/8 semesters (2021)
- **Merit scholarship** for 3/8 semesters (2017-2020)
- Participation prize: **„Ludovic Schwartz” Physics Contest** Oradea (2017)
- First Place: **„Augustin Maior” Physics Contest** XXIst edition (2017)
- Third Place: **National Physics Olympiad** - regional (2016)
- Mentioned: **National Physics Olympiad** - regional (2015)

PUBLICATIONS

2024
The effect of nanoceria on the alginate-gum arabic crosslinking mechanism and in vitro behavior as a wound dressing

Feraru, A., Tóth, Z.-R., Magyari, K., Baia, M., Gyulavári, T., Páll, E., Licarete, E., **Costinas, C.**, Cadar, O., Papuc, I., & Baia, L., *International Journal of Biological Macromolecules* (p. 138569). Elsevier BV, 2024

2022
Insights into the Stability of Graphene Oxide Aqueous Dispersions

Costinas, C., Salagean, C. A., Cotet, L. C., Baia, M., Todea, M., Magyari, K., & Baia, L., *Nanomaterials* (Vol. 12, Issue 24, p. 4489). MDPI AG, 2022

2021
Insights into the Influence of Key Preparation Parameters on the Performance of MoS2/Graphene Oxide Composites as Active Materials in Supercapacitors

Salagean, C. A., **Costinas, C.**, Cotet, L. C., & Baia, L., *Catalysts* (Vol. 11, Issue 12, p. 1553). MDPI AG, 2021