PERSONAL INFORMATION

CRIŞAN (n. DIAC) ANDREEA PETRONELA

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Sex Female | Nationality Romanian

PROFESSIONAL EXPERIENCE

02/2020-present Lecturer

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Department of Chemistry

- Teaching activity (organic chemistry laboratories, seminars and courses);
- Research in Organic and Supramolecular Organic Chemistry and Material Chemistry .

Type or sector of activity: Academic - didactic

09/2016-05/2019 Postdoctoral Researcher

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Department of Chemistry

Research project: *Self-organized pi-conjugated systems as active constituents for single-material organic solar cells (SMOSCs)*.
http://orglight.granturi.ubbcluj.ro/prezentare_celule_solare

Type or sector of activity: Academic - research

04/2016-04/2017 Scientific Researcher – Projector Director

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Department of Chemistry

Research project: *Obtaining a molecular extensor with biomimetic properties* (Grant for young researchers: GTC Nr. 31787/23.03.2016)

Type or sector of activity: Academic - research

04/2011-05/2019 Research Technician / Research Assistant

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Department of Chemistry

- Synthesis and characterization of new heterocyclic compounds with fluorescent properties;
- Synthesis and characterization of materials (carbon nanoparticles) with applications in optoelectronics;
- Use of Bruker Avance 300, 400 and 600 MHz spectrometers, Cecil Super Aquaris and Perkin Elmer Lambda 950 spectrophotometers, Jasco FP 8300 spectrofluorimeter and Biologic SP-150 potentiostat.

Type or sector of activity: Academic - research

10/2012-10/2015 PhD

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Department of Chemistry

- Synthesis and characterization of new supramolecular architectures with potential applications in material chemistry and photovoltaic conversion;
- Obtaining materials by functionalizing carbon nanoparticles and testing them in LEDs;
- Fabrication and characterization of photovoltaic devices (solar cells);

- Study of the optoelectronic and electrochemical properties of the obtained compounds.

Type or sector of activity: Academic – research

10/2013-08/2014

Researcher – Eiffel doctoral fellowship

University of Angers, Moltech-Anjou, Angers, France

- Synthesis and investigation of optoelectronic properties of donor materials for organic solar cells;
- Fabrication and characterization of organic solar cells

Type or sector of activity: Academic – research

EDUCATION and TRAINING

10/2012-10/2015

PhD Studies

Ph.D Thesis – joint between *Babeş-Bolyai University of Cluj-Napoca*, Romania and *University of Angers*, France. **Title**: "*Design, Synthesis and Supramolecular Architectures of New Heterocyclic Compounds with Potential Applications in Material Chemistry and Photovoltaic Conversion*". ***Scientific supervisors***: Prof. Ion Grosu, D.R. Jean Roncali. ***Honor***: "*Excellent / Summa Cum Laude". web-sites:* **http://www.theses.fr/s81412**

- Synthesis and characterization of new compounds with potential applications in molecular electronics and organic solar cells;
- Functionalization of carbon nanoparticles in order to obtain materials with applications in optoelectronics;
- Fabrication and characterization of photovoltaic devices (solar cells).

10/2010-10/2012

Master in Advanced Chemistry

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering

- Dissertation thesis: *"Synthesis, Structures and Fluorescence Properties of Five Series of Cyclopenta[c]pyrans"*; ***Scientific supervisor:*** Prof. Dr. Ion Grosu

10/2007-10/2010

Bachelor Studies in Chemistry

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering

- Synthesis and characterization of new pyrone derivatives with fluorescent properties

PERSONAL SKILLS and COMPETENCES

Mother tongue: Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B2	B1	B1	B2
French	B2	B2	B1	B1	B2
Italian	B2	B2	B2	B2	B1

Organizational/managerial skills

- Coordinating the research activities of French students in research internships in the organic and supramolecular chemistry laboratory;
- Coordination of research activities for the elaboration of bachelor's and dissertation theses of the students of the Faculty of Chemistry of the Babeș-Bolyai University;
- Member in the PhD mentoring committee of PhD students
- Director of an institutional research project for young researchers, awarded by competition: GTC 31787/23.03.2016;

- Member in the research teams of eight research grants awarded by national competitions (PN-III-P2-2.1-PED-2019-2601, AM_POC_P_37_220, PN-III-P4-ID-PCCF-2016-0088, RU_TE_2014_4_0727, ID_PCCE_2011_2_0069, RU_TE_2010_0314, PNII, ID_2278, nr. 459/2009; PN-III-P4-PCE-2021-1812).
- Initiative, dynamism and seriousness.

Social and Communication skills

- Excellent communication skills acquired both as a result of the experience gained in the projects in which I was involved and as a result of coordinating the students' research activities.
- Excellent communication skills and good ability to adapt to intercultural environments, acquired during the research internship carried out at the university of Angers, France.
- Very good relationship with co-workers.

Job-related skills

- Microscale to medium scale multi-step organic synthesis;
- Investigation of optoelectronic and electrochemical properties of organic compounds;
- Fabrication and characterization of photovoltaic devices (solar cells);
- Carrying out physico-chemical analysis s to determine the purity of the obtained compounds;
- Spectrophotometric and chromatographic analytical methods applied in quantitative analysis of complex mixtures;
- Use of Bruker Avance 300, 400 and 600 MHz spectrometers for 1-D, 2-D and variable temperature techniques on different nuclei (1H, 13C, 31P, 19F);
- Working experience with various equipments: UV-Vis and IR spectrophotometers: Cecil Super Aquaris and Perkin Elmer Lambda 950, Jasco FP 8300 spectrofluorimeter, Biologic SP-150 potentiostat;
- Reviewer for Studia Univ. “Babeș- Bolyai" – Chemia;
- Member of the Romanian Chemistry Society

Computer skills and competences

- Good command of Microsoft Office tools (Word, Excel, PowerPoint);
- Good knowledge of several software applied in chemistry: ChemDraw, MestreC, MestreNova, Xcalibur, Diamond, Mercury, Origin, Sigma Plot, Statistica, EC-Lab;
- Use of databases: SciFinder, Reaxys.

Other competences

- Excellent ability to work independently or in a team, honesty and sociability;
- Problem solving skills; strong desire to learn new things;
- Originality, initiative and seriousness;
- Communication and relationship skills;
- Speed of reaction, ability to organize, plan, control and decide;
- Tehnical writting.

Awards

- **Performance scholarship** No. 30068/16/19.01.2012 (October 2011 – July 2012) awarded by "Babeș-Bolyai" University, Cluj-Napoca, Romania;
- **Eiffel scholarship** N°784126D (October 2013 – July 2014) awarded by the French Government;
- **Sur-Place scholarship** (July 2012 – November 2012) awarded by the DAAD program “Academic Reconstruction of South Eastern Europe”.

Web of Science ResearcherID
Scopus Author ID
ORCID

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06th of November 2023

Lect. Dr. Andreea Crișan