

**Farkas Noémi- Izabella****WORK EXPERIENCE**

2021 – 2023

**SCIENTIFIC RESEARCH ASSISTANT**

Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University of Cluj-Napoca, Cluj-Napoca, Romania  
 Research project: Swarm intelligence of independent artificially active particles, PN-III-P4-ID-PCE-2020-1301

**EDUCATION AND TRAINING**

2020 – CURRENT Cluj-Napoca, Romania

**PHD STUDENT** Doctoral School of Chemical Engineering, Babes-Bolyai University

2018 – 2020 Cluj Napoca, Romania

**MASTER'S DEGREE** Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University**Thesis** Investigation of the release of anti-inflammatory agents from hydroxyapatite-based nanocomposites in SBF

2014 – 2018 Cluj- Napoca, Romania

**BACHELOR DEGREE** Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University**Thesis** Investigation of the release of anti-inflammatory agents from hydroxyapatite-based nanocomposites in SBF

2010 – 2014 Sfantu Gheorghe, Romania

**HIGH SCHOOL DIPLOMA** Szekely Miko College**LANGUAGE SKILLS**Mother tongue(s): **HUNGARIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	B2	C1	B2	B2	C1
<b>ROMANIAN</b>	C1	C1	C1	C1	C1

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

**ADDITIONAL INFORMATION****PUBLICATIONS****Adsorption and desorption behavior of natural and synthetic active compounds on hydroxyapatite-based nanocomposites**

– 2021

Barábas R., Farkas N.-I., Nagy Cs. L., Cadar O., Moisa C., Bizo L., *Ceramics International*, 47(6), 8584

**Hydroxyapatite and silicon-modified hydroxyapatite as drug carriers for 4-aminopyridine – 2021**

Marincaș L., Turdean G.L., Toșă M., Kovács Zs., Kovács B., Bizo L., Barabás R., Farkas N.-I., Crystals, 11, 1124

---

**Preparation and characterization of doxycycline loaded electrospun PLA/HAP nanofibers as a drug delivery system**

– 2022

Farkas N.-I., Marincaș L., Barabás R., Bizo L., Ilea A., Turdean G.L., Toșă M., Cadar O., Barbu-Tudoran L., Materials, 15, 2105

---

**In vitro antimicrobial effect of novel electrospun polylactic acid/hydroxyapatite nanofibres loaded with doxycycline**

– 2022

Andrei V., Fit N. I., Matei I., Barabás R., Bizo L.A., Cadar O., Bosca B.A., Farkas N.-I., Marincaș L., Muntean D.-M., Dinte E., Materials, 15, 6225

---

**Deep eutectic solvent PCL-based nanofibers as drug delivery system – 2023**

Marincaș L., Farkas N.-I., Barbu-Tudoran L., Barabás R., Toșă M., Materials Chemistry and Physics, 304, 127862

---

**The effect of chemical composition and morphology on the drug delivery properties of hydroxyapatite-based biomaterial**

– 2023

Farkas N.-I., Turdean G.L., Bizo L., Marincaș L., Cadar O., Barbu-Tudoran L., Barabás R., Ceramics International, 49, 15, 25156

---

**Investigation of the real-time release of Doxycycline from PLA-based nanofibers – 2023**

Farkas N.-I., Marincaș L., Barbu-Tudoran L., Barabás R., Turdean G.L., Journal of Functional Biomaterials, 14,6,331

---

**Release of amoxicillin and doxycycline from PLA nanofibers optimized using factorial experimental design**

Farkas N.-I., Barabás R., Resz M.-A., Becze A., Marincaș L., Veszi A., Boșca B. A., Dinte E., Feurdean C. N., Uriciuc A., Babtan A.M., Ilea A., Cadar O., Bizo L., Applied Physics A, 129, 854

---

**Syntheses and characterization of silver-doped hydroxyapatite – 2023**

Petkes R., Farkas N.-I., Marincaș L., Bartha-Vári J.-H., Barabás R., Studia Universitatis Babeș-Bolyai, Chemia, 68, 4, 27

---

**PROJECTS**

**Biotechnology for a novel biomimetic composite hydrogel based on extracellular matrix components and small molecule-enriched Si-bioceramics** PN-III-P2-2.1-PED-2019-1714

**Customized intelligent matrices for tissue regeneration and metainlamation control (PRIM-TISS)** PN-III-P2-2.1-PED-2019-3664

**CONFERENCES/ ORAL OR POSTER PRESENTATIONS**

**Adsorption and desorption of anthocyanin extract on hydroxyapatite and various hydroxyapatite composites**

---

Farkas N.-I., Barabás R., Scientific Conference of Students from Transylvania, 2018, Cluj-Napoca, Romania

**Preparation of hydroxyapatite and nanohydroxyapatite composites, investigation of adsorption and desorption properties with anthocyanin extract**

---

Farkas N.-I., Barabás R., 18<sup>th</sup> Transylvanian Conference of Natural Science, 2018, Cluj-Napoca, Romania

**Adsorption and desorption of anthocyanin extract on hydroxyapatite and various hydroxyapatite composites**

---

Farkas N.-I., Barabás R., 34<sup>th</sup> National Student Conference, 2019, Budapest, Hungary

**Effect of carbon nanostructures on the adsorption and desorption properties of hydroxyapatite**

---

Farkas N.-I., Barabás R., Scientific Conference of Students from Transylvania, 2019, Cluj-Napoca, Romania

**Study of the adsorption/desorption processes of adsorptives on nano-composite differences based on hydroxyapatites**

---

Farkas N.-I., Barabás R., 19<sup>th</sup> Transylvanian Conference of Natural Science, 2019, Cluj-Napoca, Romania

**Investigation of the adsorption/desorption properties of hydroxyapatite and hydroxyapatite- based composites with different adsorbates**

---

Farkas N.-I., Barabás R., 25<sup>th</sup> International Conference on Chemistry, 2019, Cluj-Napoca, Romania

**Release study of the mixture of anthocyanin and ibuprofen from nanocomposites based on hydroxyapatite in SBF**

---

Farkas N.-I., Barabás R., Scientific Conference of Students from Transylvania, 2020, Romania

**Investigation of the in vitro release mechanism of different active substances from nano-hydroxyapatite-based nanocomposites**

---

Farkas N.-I., Marincaş L., Barabás R., 26<sup>th</sup> International Conference on Chemistry, 2020, Romania

**Effect of carbon nanostructures on the adsorption and desorption properties of hydroxyapatite**

---

Farkas N.-I., Barabás R., 35<sup>th</sup> National Student Conference, 2021, Budapest, Hungary

**Investigation of hydroxyapatite-based drug delivery systems with fampyridine**

---

Farkas N.-I., Marincaş L., Barabás R., Turdean G.L., 27<sup>th</sup> International Conference on Chemistry, 2021, Cluj-Napoca, Romania

**Characterization of hydroxyapatite-based drug delivery systems**

---

Farkas N.-I., Marincaş L., Barabás R., 21<sup>th</sup> Transylvanian Conference of Natural Science, 2021, Cluj-Napoca, Romania

**Preparation of doxycycline containing nanofibers by electrospinning method**

---

Marincaş L., Farkas N.-I., Barabás R., Toşa M. I., 27<sup>th</sup> International Conference on Chemistry, 2021, Cluj-Napoca, Romania

**Preparation and investigation of polylactic acid-based carriers**

---

Marincaş L., Farkas N.-I., Barabás R., Toşa M. I., 21<sup>th</sup> Transylvanian Conference of Natural Science, 2021, Cluj-Napoca, Romania

**Investigation of silicon-doped hydroxyapatite drug carrier for different active substances**

---

Farkas N.-I., Marincaş L., Turdean G.L., Barabás R., "Application of Chemistry in Nanosciences and Biomaterials Engineering-NanoBioMat 2021", NanoBioMat2021-winter session, 2021, Romania

**Preparation of drug delivery systems from polylactic-acid-based nanofibers**

---

Marincaş L., Farkas N.-I., Barabás R., Toşa M. I., "Application of Chemistry in Nanosciences and Biomaterials Engineering-NanoBioMat 2021", NanoBioMat2021-winter session, 2021, Romania

---

20/03/2024



Farkas Noémi- Izabella