

Curriculum vitae



PERSONAL **INFORMATION**

Name / First Name

MIOARA ZAGRAI

Donath Street, No.67-103, Ro-400293, Cluj-Napoca, Romania



+40 264584037; 0742 16 97 98

Nationality

mioara.zagrai@itim-cj.ro; miozagrai@yahoo.com

Date of birth

Romanian 19/04/1981

WORK EXPERIENCE

Scientific Researcher III

apr. 2019 – present

National Institute for Research and Development of Isotopic and Molecular Technologies (I.N.C.D.T.I.M.) Cluj-Napoca, Centre of Advanced Research and Technology for Alternative Energies -CETATEA.

Research activity

Synthesis, structural and behavioral analysis of glasses, glasses-ceramics and ceramic materials with controlled structure and properties for applications in vary field of modern technology from environmental protection and photonics to energy storage, including industrial applications. The structure and behavior of the amorphous / crystalline systems, obtained by different technique (melt quenching, sol-gel, uniaxial pressure and solid-state reaction process), are investigated by: Xray diffraction (XRD), Fourier Transform Infrared (FTIR), Ultraviolet-Visible (UV-Vis), and Photoluminescence (PL) Spectroscopy, Differential scanning calorimetry (DSC).

febr. 2017 – apr. 2019

Research Assistant

National Institute for Research and Development of Isotopic and Molecular Technologies (I.N.C.D.T.I.M.), Cluj-Napoca, Centre of Advanced Research and Technology for Alternative Energies -CETATEA.

Research activities

nov. 2016 - oct. 2018

Research Assistant

Technical University of Cluj-Napoca.

Research activities

EDUCATION AND TRAINING

PhD in Environmental Engineering - Technical University, Cluj-Napoca, Romania. "Oxidic Vitreous Systems with Applications for the 2018 | Environmental Protection", scientific advisor Prof.dr.chim. Elena Maria PICĂ.

2013

MSc in Environmental Engineering, Sustainable Development and Environment Protection - Technical University, Cluj-Napoca, Faculty of Materials and Environmental Engineering, Romania.

PERSONAL SKILLS

Mother tongue

Romanian

Foreign language(s)

English French

| UNDERSTANDING | | SPEAKING | | WRITING |
|---------------|---------|--------------------|-------------------|---------|
| Listening | Reading | Spoken interaction | Spoken production | |
| B1 | B1 | B1 | B1 | B1 |
| A1 | A1 | A1 | A1 | A1 |

Technical skills Operate: FTIR Spectrometer, V-750 UV-Visible Spectrophotometer, Potentiostat/Galvanostat AUTOLAB PGSTAT 302N and Micro Vickers Hardness Tester

Digital skills

Competent with Microsoft Office tools, Origin, Nova II, Match!

Driving license

B since 2004

ADDITIONAL INFORMATION

Publications

17 ISI articles

- 1. Mioara Zagrai, Sergiu Gabriel Macavei, Radu Cristian Gavrea, Adriana Popa, Augusta Adriana Dehelean, Lucian Barbu-Tudoran, Maria - Loredana Soran, 2023. Evaluation of the physical, thermal and structural properties of copper-lead glass for efficient incorporation of MoO₃, Journal of Alloys and Compounds, Volume 968, 172062
- 2. Mioara Zagrai, Gabriel Sergiu Macavei, Adriana Popa, Lucian Barbu-Tudoran, Radu Cristian Gavrea, Anca Raluca Mereu, Maria-Loredana Soran, 2023. Structural, thermal and physical properties of cesium doped molybdenum-copper-lead glass, Journal of Non-Crystalline Solids, Volume 619, 122577
- 3. Mioara Zagrai, Sergiu Macavei, Simona Rada, Maria Elena Pică, Stela Maria Pruneanu, 2022. Structural and spectroscopic properties of gadolinium-lead-lead dioxide glasses. Journal of Non-Crystalline Solids, Volume 576, 121234

- 4. **Mioara Zagrai**, Ramona-Crina Suciu, Simona Rada, M.E. Pică, Stela Pruneanu, 2021. Structural and optical properties of Eu3+ ions in lead glass for photonic applications, *Journal of Non-Crystalline Solids*, 569, 120988
- 5. **M. Zagrai**, M. Unguresan, S. Rada, J. Zhang, M. Pica, E. Culea, 2020. Local structure in gadolinium-lead-borate glasses and glass-ceramics. *Journal of Non-Crystalline Solids*, 546, 120259

Conferences Hirsh Index

53 scientific communications at international conferences Hirsh index: 8 (according to the Web of Science/ Scopus)

Patents

- 1. "Preparation technique of partially stabilized zirconia ceramics by oxides addition". RADA Simona, ZAGRAI Mioara, RADA Nicolae Marius, CULEA Eugen, MANOLE Marius, HENDEA Radu. RO 132713
- 2. "Preparation, optimization and application technique of recycled materials provided from electrodes of the spent car batteries". RADA Simona, ZAGRAI Mioara, RADA Nicolae Marius, CULEA Eugen, BOT Adrian. RO 132873.

Project Manager

PN-III-P1-1.1-PD-2021-0721 – "Advanced Glasses and Glass-Ceramics Waste forms for Efficient Radionuclides Incorporation" (2022-2024) https://www.itim-cj.ro/PNCDI/agcform/

PN-III-P1-1.1-MC-2017-2180 - "The investigation by modern methods of a structure-luminescence properties interrelationship in the vitreous systems based on lead and doped with europium ions" (2017-2018).

PROFILES:

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Scopus ID: 55597849200

Researcher ID: AAD-2188-2019

Cluj-Napoca,

30.01.2024