


## PERSONAL INFORMATION

**CURSARU LAURA-MADALINA**

 102 Biruintei Blvd., Pantelimon, ILFOV

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PROFESSIONAL  
EXPERIENCE

August 2020 – present

**Administrator****S.C. SPIN OFF HYNAMAT S.R.L**, Pantelimon, 077145, Ilfov, Romania

- Coordination of hydrothermal synthesis activities and additive manufacturing of hybrid nanostructured materials based on hydroxyapatite and polyurethane diol, FT-IR characterization of hybrid nanostructured powders based on hydroxyapatite and polyurethane diol

**Business or sector** Research and development

May 2017 – present

**Scientific researcher 2<sup>nd</sup> degree (CS II)****NATIONAL RESEARCH-DEVELOPMENT INSTITUTE FOR NON-FERROUS AND RARE METALS, INCDMNR-IMNR**, Pantelimon, 077145, Ilfov, Romania, [www.imnr.ro](http://www.imnr.ro)

- Hydrothermal synthesis of nanostructured (hybrid) materials, FT-IR characterization of solids, liquids, thin films
- Additive manufacturing of 3D structures from hydrothermal synthesized powders, obtaining thin films by electrochemical methods

**Business or sector** Research and development

January 2009 – April 2017

**Scientific researcher 3<sup>rd</sup> degree (CS III)****NATIONAL RESEARCH-DEVELOPMENT INSTITUTE FOR NON-FERROUS AND RARE METALS, INCDMNR-IMNR**, Pantelimon, 077145, Ilfov, Romania, [www.imnr.ro](http://www.imnr.ro)

- Hydrothermal synthesis of nanostructured (hybrid) materials, FT-IR characterization of solids, liquids, thin films
- Obtaining 3D structures from hydrothermal synthesized powders, obtaining thin films by electrochemical methods

- real-time monitoring of hydrothermal processes using RAMAN spectroscopy

**Business or sector** Research and developmentJanuary 2008 – December  
2008**Scientific research assistant (ACS)****NATIONAL RESEARCH-DEVELOPMENT INSTITUTE FOR NON-FERROUS AND RARE METALS, INCDMNR-IMNR**, Pantelimon, 077145, Ilfov, Romania, [www.imnr.ro](http://www.imnr.ro)

- Hydrothermal synthesis of nanostructured (hybrid) materials, FT-IR characterization of solids, liquids, thin films

**Business or sector** Research and development

June 2005 – December 2007

**Engineer****NATIONAL RESEARCH-DEVELOPMENT INSTITUTE FOR NON-FERROUS AND RARE METALS, INCDMNR-IMNR**, Pantelimon, 077145, Ilfov, Romania, [www.imnr.ro](http://www.imnr.ro)

- Hydrothermal synthesis of hybrid nanostructured materials
- Obtaining thin films by the hydrothermal-electrochemical process

**Business or sector** Research and development

November 2002 – May 2005

**Engineer****INSTITUTE FOR NON-FERROUS AND RARE METALS, SC I.M.N.R. S.A.**, Pantelimon, Ilfov, Romania, [www.imnr.ro](http://www.imnr.ro)

- Hydrothermal synthesis of hybrid nanostructured materials
- Obtaining thin films by the hydrothermal-electrochemical process

**Business or sector** Research and development

## EDUCATION AND TRAINING

22 June 2020 – 29 June 2020

**Entrepreneurial skills**

Graduation Certificate for Entrepreneurial skills

„Entrepreneurial skills” training program (online course)

CIT-IRECSON, Technological Information Center SRL, Bucharest

7 May 2018 – 11 May 2018

**Expert accessing European funds**

Graduation Certificate for Expert accessing European structural and cohesion funds”, COR code 242213

Intratest S.A., Bucharest

15 March 2011 – 29 March  
2011**Trainer**

Graduation Certificate for „Trainer for trainees” course, COR code 241205

Euro Best Team SRL, Bucharest, course certified by CNFPA Bucharest

June 2010 – March 2013	<b>Postdoctoral researcher in the field of BIOMATERIALS</b> Postdoctoral research contract no. 2078 / 01.06.2010 financed by the Project „European Social Fund - Postdoctoral Fellowship Programme Cristofor I. Simionescu” - ID 55216 Romanian Academy - “Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania
November 2003 – May 2008	<b>PhD in Chemistry</b> PhD Diploma no. 294 / 19.11.2008, based on MECT Order no. 5837 / 04.11.2008 University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science
October 2002 – June 2003	<b>Postgraduate studies</b> Postgraduate diploma in the field of Thermodynamics and Advanced Electrochemistry University POLITEHNICA of Bucharest, Faculty of Industrial Chemistry
October 1997 – July 2002	<b>Diploma Engineer in CHEMISTRY, speciality in Macromolecular Compounds Technology</b> Engineer degree University POLITEHNICA of Bucharest, Faculty of Industrial Chemistry

## PERSONAL SKILLS

Mother tongue(s)  
Other language(s)

	Romanian				
	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C2
	Replace with name of language certificate. Enter level if known.				
French	B1	C2	A2	A1	A2

**Digital competence** Known programs: Microsoft Office, Origin Pro 8, HSC Chemistry 9, equipment software(Horizon MB™ FT-IR, NOVA2.1 – Metrohm Autolab potentiostat PGSTAT 128N).

## Projects / Publications

### Projects list (selection)

- POC/62/1/3 Cod SMIS 2014+: 114698, nr. 319/28.08.2020 „Development of the innovation capacity of HYNAMAT SRL by obtaining new types of nanostructured hybrid powders based on nanostructured biocompatible ceramic materials and commercial polymers with biomedical applications” – **Project director** (2020-2022)
- New product fabricated by extrusion-based 3D printing from marine bio-waste (3D BIOPRO), ctr. 499PED/01.10.2020 - **Project director**
- MANUNET 208/01.12.2020 Manufacturing technologies for environmental and energy applications (acronym NYMPH) – **key person**
- Postdoctoral research project - type PD CNCSIS-UEFISCDI, PNII-RU-PD16, title “ New hybrid materials based on inorganic nanoparticles functionalized with macromolecular structures with controlled architectures” – **Project director** (2010-2012)
- PN-II-PT-PCCA-2011-3.2-1368, ctr. 167/2012 / Technologies for obtaining leather articles with self-protection properties, by functionalizing the surface with oxide and metal nanoparticles, for advanced applications, Acronym SELFPROPIEL (2012-2016) – **Project responsible**
- Core Programme 2019, Cod PN 19190101 „3D structures based on advanced materials, obtained by additive manufacturing, with environmental and energy storage applications” – **Project responsible** (2019-2022)
- Core Programme 2018, Cod PN 18070101, “ 3D printing processes for the use of nanostructured materials in the development of porous ceramic structures” – **Project responsible** (2018)
- Translational proof of concept of spintronic micro-nanoparticle non thermal vibrational therapy for glioblastomas, cod proiect ERANET-EURONANOMED II-NANOVIBER (2017-2020) – **key person**
- Development of a non-invasive breath test for early diagnosis of tropical diseases, Acronym TROPSENSE, proiect MSCA-RISE-2014:Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE), Grant nr. 645758 (2015-2019) – **key person**
- New ocular implant with high biocompatibility and proliferation rate, Acronym ORBIMPLANT, ctr. PN-II-PT-PCCA-2013-4, Ctr. 114/2014 (2014-2017) – **key person**
- PPI/PEI dendrimers immobilised iron oxide nanoparticles as contrast agents for cancer detection, Acronym NANOCAGE, JRP Ctr. IZERZO No. 14214 and PNII-Ideii, Ctr. 4/RO-CH/RSRP/2012 (2012-2016) – **key person**
- Innovative methods for enhancing high temperature thermal energy storage properties of phase change materials, Acronym EHERHIGH, POC-A1-A1.1.4-E-2015, Ctr. no. 93/2016-2019 - **member of the project management and implementation team**

### Publications list (selection)

- L. M. Cursaru**, R. M. Piticescu, D.V. Dragut, R. Morel, C. Thébault, M. Carrière, H. Joisten, B. Dieny, One-Step Soft Chemical Synthesis of Magnetite Nanoparticles under Inert Gas Atmosphere. Magnetic Properties and In Vitro Study, Nanomaterials, ISSN 2079-4991, 10(8), 1500, 2020.
- L. M. Cursaru**, A. M. Mocioiu, I. A. Tudor, R.M. Piticescu, Hydrothermal synthesis of carbon nanotubes-polyaniline (CNT-PANI) composites and preliminary electrochemical characterization of CNT-PANI coatings, Materiale Plastice ISSN 2668-8220 57(3), pp. 238-248, **2020**.
- L. M. Cursaru**, R. M. Piticescu, D. V. Dragut, I. A. Tudor, V. Kuncser, N. Iacob, F. Stoiciu, The Influence of Synthesis Parameters on Structural and Magnetic Properties of Iron Oxide Nanomaterials, Nanomaterials, ISSN 2079-4991, 10(1), 85, **2020**.
- A.M. Mocioiu, R. Tutuiianu, **L.M. Cursaru**, R.M. Piticescu, P. Stanciu, B.S. Vasile, R. Trusca, V. Sereanu, A. Meghea, 3D structures of hydroxyapatite obtained from Rapana venosa shells using hydrothermal synthesis followed by 3D printing, Journal of Materials Science, ISSN 0022-2461, 54(22), 13901-13913, **2019**.
- R. M. Piticescu, **L. M. Cursaru**, D. N. Ciobota, S. Istrate, D. Ulieru, 3D Bioprinting of Hybrid Materials for Regenerative Medicine: Implementation in Innovative Small and Medium-Sized Enterprises (SMEs), JOM, ISSN 1047-4838, 71(2) 662-672, **2019**.
- C. Gaidau, A. Petica, M. Ignat, **L. M. Popescu**, R. M. Piticescu, I. A. Tudor, R. R. Piticescu, Preparation of Silica Doped Titania Nanoparticles with Thermal Stability and Photocatalytic Properties and their Application for Leather Surface Functionalization, Arabian Journal of Chemistry, ISSN: 1878-5352, vol. 10, nr. 7, p. 985-1000, **2017**.
- R. Tutuiianu, **L. M. Popescu**, M. B. Preda, A-M. Rosca, R. M. Piticescu and A. Burlacu, Evaluation of the Ability of Nanostructured PEI-Coated

Iron Oxide Nanoparticles to Incorporate Cisplatin during Synthesis, *Nanomaterials*, ISSN 2079-4991, 7(10), 314, **2017**.