

PERSONAL INFORMATION Maria-Loredana Soran



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Sex Female | Date of birth 04/03/1976 | Nationality Romanian

WORK EXPERIENCE

2017-present **Scientific Researcher I**

2010-2017 **Scientific Researcher II**

National Institute for Research and Development of Isotopic and Molecular Technologies, 67-103 Donat Street, 400293, Cluj-Napoca, Romania

- Separation and determination of various compounds by high-performance liquid chromatography (HPLC) and thin layer chromatography (TLC); extraction techniques; extraction of bioactive compounds from plants by classical and modern methods; influence of stress factors on plants; water decontamination using different nanoparticle systems; nanoparticle synthesis and hybrid systems with controlled structure and properties (e.g Fe @ Au core-shell systems, CoPt alloys, FePt in L10 phase, etc.) using sol-gel method, polyol, reverse micelle method; synthesis of nanomaterials using environmentally friendly raw materials; synthesis and testing of catalysts in order to obtain biofuels; preparation of project documentation.

Business or sector Research

May 2006-2010 **Scientific Researcher III**

National Institute for Research and Development of Isotopic and Molecular Technologies , 67-103 Donat Street, 400293, Cluj-Napoca, Romania

- Separation and determination of various compounds by HPLC and TLC; extraction techniques; extraction of bioactive compounds from plants by classical and modern methods; the influence of stress factors on plants; synthesis of nanoparticles and hybrid systems with controlled structure and properties (e.g core-shell systems of Fe @ Au , Fe @ Pt, Fe₃O₄ @ Au, magnetic nanoparticles coated with polymer, etc.) using sol-gel method, polyol, reverse micelle method; preparation of project documentation.

Business or sector Research

October 2004-May 2006 **Scientific Researcher**

National Institute for Research and Development of Isotopic and Molecular Technologies , 67-103 Donat Street, 400293, Cluj-Napoca, Romania

- Separation and determination of various compounds by HPLC and TLC; extraction techniques; extraction of bioactive compounds from plants by classical and modern methods; the influence of stress factors on plants; synthesis of nanoparticles and hybrid systems with controlled structure and properties (e.g core-shell systems of Fe @ Au, Fe @ Pt, Fe₃O₄ @ Au, magnetic nanoparticles coated with polymer, etc.) using sol-gel method, polyol, reverse micelle method; preparation of project documentation.

Business or sector Research

January 2002-October 2004 **Scientific Researcher**

"Raluca Ripan" Institute for Research in Chemistry, 30 Fântânele Street, 400294, Cluj-Napoca, Romania

- Separation and determination of different classes of compounds by HPLC and TLC; microproduction activity (realization of chromatographic plates covered with different stationary phases); preparation of the documents necessary for the project proposals; elaboration of the reports.

Business or sector Research, microproduction

2000-January 2002 **Research Assistant**

"Raluca Ripan" Institute for Research in Chemistry, 30 Fantanele Street, 400294, Cluj-Napoca, Romania

- Separation and determination of different classes of compounds by HPLC and TLC; microproduction activity (realization of chromatographic plates covered with different stationary phases).

Business or sector Research, microproduction

September 1999- 2000

Teacher

Forest Sch. Group, 2 Izvoarelor Street, Câmpeni, Romania

Business or sector Didactic activity

EDUCATION AND TRAINING

2018	Habilitation in Environmental Engineering	
1999-2005	PhD in Chemistry	8EQF
	"Babeş-Bolyai" University, Cluj-Napoca, Faculty of Chemistry and Chemical Engineering	
1998-1999	Master degree - Speciality Organometallic and coordinative chemistry	7EQF
	"Babeş-Bolyai" University, Cluj-Napoca, Faculty of Chemistry and Chemical Engineering	
1994-1998	BSc in Chemistry - Physics	6EQF
	"Babeş-Bolyai" University, Cluj-Napoca, Faculty of Chemistry and Chemical Engineering	
1990-1994	Baccalaureate Diploma	4EQF
	"Avram Iancu" Theoretical High School, Câmpeni	

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B1	B1	B2
French	B1	B1	B1	B1	B1

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

[Common European Framework of Reference for Languages](#)

Communication skills	<ul style="list-style-type: none"> ▪ Communication skills and ability to work in a team gained through the scientific collaborations with research teams from Romania and abroad
Organisational / managerial skills	<ul style="list-style-type: none"> ▪ Good organizer and resource manager; understand the organizational culture; ▪ Head of research team "Bioactive compounds and nanostructures" of 7 people (2014-2018) ▪ Good managerial skills acquired through the coordination of the research teams within the projects in which he was and is director / responsible
Job-related skills	Preparation of tender books and analysis of quotations for equipment within several research projects. Analysis of quotations for laboratory glassware and supplies, inventory, equipment as well as track of spending and acquisitions for the projects in charge as director

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Basic user

Levels: Basic user - Independent user - Proficient user

[Digital competences - Self-assessment grid](#)

- good command of Borwin, Adobe Photoshop, Paint, Chemwin, ACD See, Internet documentation, Corel Draw, LC Solution, Wincats
- Other skills
 - Coordination of license papers at the Faculty of Chemistry and Chemical Engineering
 - Reviewer at various international ISI listed journals, such as: Science of the Total Environment, Journal of Chromatography, Journal of Liquid Chromatography & Related Technologies, African Journal of Microbiology Research, Journal of Essential Oils - Bearing Plant

ADDITIONAL INFORMATION

- Publications** Summary of publications (https://www.researchgate.net/profile/Maria-Loredana_Soran, <https://publons.com/researcher/2951668/maria-loredana-soran/>)
- Published articles: 48 in ISI indexed journals, 3 in the volume "Encyclopedia of Chromatography", 18 in ISI non-indexed journals, 27 in proceedings
 - Books: 1;
 - Chapters in English and Romanian, in books published in the country: 2
 - Participation in conferences: 129 internationals and 16 nationals
- Patents**
- 1 patent - E. Surducan, V. Surducan, Soran Maria Loredana, Bros Ildikó, "Instalație de separare a compușilor chimici prin cromatografie în prezența câmpului de microunde de putere" / Installation for separation of the chemical compounds by chromatography in the presence of the power microwave field RO 123363 / 28.10.2011
- 2 patent applications filed in the Republic of Moldova, 1 in Romania (Procedure for the Functional Cheese Cream, Ghendov-Mosanu A., Popescu L., Sturza R., Lung I., Opris O., Soran L., Application no. MD s 2017 0122 of November 22, 2017. Procedure for making functional cheese dessert, Ghendov-Mosanu A., Popescu L., Sturza R., Lung I., Opris O., Soran L., Stan M., application no. MD 2017 0121 of November 22, 2017)
- Projects** **Director / responsible for 6 projects:**
1. CEEX C-2995 / 11.10.2005, Separation and determination of certain metals from water samples, using dithiophosphoric derivatives as complexing agents (2005 – 2007)
 2. CEEX 1433/27.04.2006, Quality analysis of vegetable oils by applying an assembly of performing chromatographic and optothermal methods (2006 – 2008)
 3. PNII 51-098 / 2007, Microwave influence on bioactive compounds from inland plants (2007 – 2010)
 4. PN2-RU-TE 76/2011, Effects of microwave fields on volatile oils and secondary metabolites of some indigene plants (2011 – 2014)
 5. EEA Grants, 3499/20.05.2015, Methodological guide for monitoring antibiotic residues and antimicrobial resistance in the environment as a supporting instrument for an enhanced quality management of surface waters and groundwater (2015 – 2016)
 6. 35/BM/19.09.2016, The substitution of the synthetic food additives with bio-active components extracted from natural renewable resources (2016 – 2018)
 7. 18 / 01.09.2016, Increasing technological and knowledge transfer capacity of INCDTIM Cluj in the field of bio-economy TTC-ITIM; Subsidiary contract 269 / 08.06.2018, Cosmetic products with photoprotective activity, based on herbal extracts
- Member in research team of over 36 de projects
- Honours and awards** **First Prize** obtained at the International Conference "Several Aspects of Biology, Chemistry, Informatics, Mathematics and Physics", November 11-13, 2005, Oradea, Romania.
- First prize** (best poster) obtained at the XXI International Symposium on Physical-Chemical Methods of Separation, July 2-5, 2006, Torun, Poland, with the paper

entitled "TLC Separation of U(VI), ThIV), Co(II), Ni(II) and Cu(II) on Various Stationary Phases Using HDEHDTP as Complexing Agent".

Excellence Prize, Silver Medal and Excellence Prize and PROINVENT Medal at the International Exhibition of Research, Innovation and Invention, PROINVENT seventh edition, Cluj-Napoca, 2009, for "group of inventions" consisting of:

- "Method and installation for processing dynamics of a substance in power microwave field" by E. Surducan, V. Surducan, Patent: RO 122063 B1 /28.11.2008;
- "Stimulating the development of plants in the microwave field" by E. Surducan, V. Surducan, A. Halmagyi, Patent application: A00429 / 09.06.2008;
- "Installation for separation of chemical compounds by chromatography in the presence of the microwave power field" by: E. Surducan, V. Surducan, **Soran Maria Loredana**, Bros Ildiko, Patent: RO-A / 00833 -06.12.2007.

Special Prize of the Scientific Research Authority, 2nd Prize, A11 Section - Basic Science, "Microwave interaction with molecular and biomolecular systems" by: E. Surducan, V. Surducan, V. Tosa, I. Bros, **M.L. Soran**.

Memberships Member of Professional Associations: Chromatography Society, Romanian Society of Chemistry, Society of Separation Science

References

Citations

More than 300 in ISI and BDIs indexed journals (according to ISI Web of Knowledge)

6 in books and chapters (according to Google Scholar)

ANNEXES

- List of papers