


## PERSONAL INFORMATION



Ildikó Lung (born Broş)

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Gender Femal | Date of birth 28/06/1977 | Nationality Romanian

## PLACE OF WORK

National Institute for Research and Development of Isotopic and Molecular Technologies

## WORK EXPERIENCE

2016 - present

**Scientific researcher III**

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

Bioactive compounds extraction from plants by classical and modern techniques; the optimization of extraction conditions using the Box-Behnken experimental model; the influence of stress factors on the bioactive compounds from plants; separation and determination of various compounds by HPLC, TLC and UV-Vis; water decontamination using different nanoparticle systems; synthesis of nanoparticles (eg. MnO<sub>2</sub>, Fe<sub>3</sub>O<sub>4</sub>/MnO<sub>2</sub>, MWCNT-COOH, MWCNT-Fe<sub>3</sub>O<sub>4</sub>, etc.), drawing the documents necessary for the project proposals.

Business or sector Research

2006 - 2016

**Scientific researcher**

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

Bioactive compounds extraction from plants by classical and modern techniques; the influence of abiotic stress induced by microwaves from different domains of GSM frequencies (mobile communications) and WLAN (wireless communications) on bioactive compounds in plants; separation and determination of various compounds by HPLC, TLC and UV-Vis; water decontamination using different nanoparticle systems; synthesis of nanoparticles (eg. MnO<sub>2</sub>, Fe<sub>3</sub>O<sub>4</sub>/MnO<sub>2</sub>, MWCNT-COOH, MWCNT-Fe<sub>3</sub>O<sub>4</sub>, etc.), drawing the documents necessary for the project proposals.

Business or sector Research

2004 - 2006

**Research assistant**

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

Unconventional processing techniques of the samples in microwave field; extraction of polyphenolic compounds from plants by classical and modern methods; analysis of polyphenolic compounds by thin layer chromatography (TLC) and UV-Vis spectrometry.

Business or sector Research

## EDUCATION AND TRAINING

2005 - 2012

**PhD in Chemistry**

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering

8 EQF

2003 - 2004

**Master degree – specialization in Modern methods of analysis used for quality control of the environment and products**

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering

7 EQF

1998 - 2003

**BSc in Chemical Engineering - specialization in Technology of organic substances**

6 EQF

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering

1992 - 1996

**Baccalaureate Diploma**

4 EQF

"Onisifor Ghibu" Theoretical High School, Cluj-Napoca

**PERSONAL SKILLS AND COMPETENCES**

Mother tongues Romanian, Hungarian

Other languages

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

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Communication skills Communication skills, high responsibility, sociability, tolerance.

Organisational / managerial skills Adaptability and team work capacity. Good skills in preparing project required documentation.

Job-related skills

Courses:

- Specialization Auditor of the Quality Management System in an accredited/ accredited laboratory according to ISO 17025: 2005 and ISO 19011: 2011 (Brasov, 17 – 20 May 2016)
- Application Training for Shimadzu LCMS and LCMS Solution Software (Viena, 16 – 20.03.2009)
- Auditor's Specialization in the Field of Quality (Cluj-Napoca, 21 – 25 May 2007)
- Environmental Auditor Specialization (Cluj-Napoca, 28 May – 01 June 2007)
- Specialization Auditor Health and Occupational Safety (Cluj-Napoca, 28 May – 01 June 2007)

Digital skills

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](#)

- Adobe Photoshop, Paint, Origin, Chemwin, Corel Draw, LC Solution, Wincats, Internet documentation

Other skills

- Scientific reviewer at:  
 Journal of planar chromatography – Mod. TLC  
 Ultrasonics Sonochemistry

**ADDITIONAL INFORMATION**

Publications	Published papers: 27 in ISI indexed journals, 12 in non-ISI journals, 6 in proceedings Chapters in English and Romanian, in books published in the country: 1
Conferences	Participation at conferences: 72 internationals and 8 nationals
Patents	1 Romanian patent
Citations	105 (according to ISI Web of Knowledge)
Projects	Member in research team of 16 de projects
Memberships	Member of the professional association: Romanian Society of Chemistry
Honours and awards	<b>Excellence Award and the gold medal</b> at the International Exhibition of Research, Innovation and Invention, PRO INVENT, 21-23 March 2018, Cluj-Napoca, Romania, for: "The process for obtaining polyphenols from grape marc", authors: R. Sturza, A. Ghendov-Moşanu, E. Cristea, A. Patraş, <u>I. Lung</u> , O.I. Opriş, M.C. Stan, M.L. Soran, V. Popovici <b>Excellence Award and the gold medal</b> at The 22 <sup>nd</sup> International Exhibition of Inventions, INVENTICA 2018, 27-29 June, Iaşi, Romania, for: "Process for obtaining polyphenols from grape marc", authors: R. Sturza, A. Ghendov-Moşanu, E. Cristea, A. Patraş, V. Popovici, <u>I. Lung</u> , O.I. Opriş, M.C. Stan, M.L. Soran <b>Excellence Award and the silver medal and Excellence Award and the Proinvent medal</b> 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" authors: E. Surducan, V.Surducan Patent: RO 122063 B1 /28.11.2008 - "Stimulating the development of plants in the microwave field" authors: E.Surducan, V. Surducan, A. Halmagyi Patent application: A00429/ 09.06.2008 - "Instalatie de separare a compusilor chimici prin cromatografie in prezenta campului de microunde de putere" authors: E. Surducan, V.Surducan, M.L. Soran, <u>I. Bros</u> Patent: RO-A/00833 – 06.12.2007 <b>Special Award of Scientific Research Authority, Award II, A11 Section – Basic Sciences</b> , "Microwave interaction with molecular and biomolecular systems", authors: E. Surducan, V. Surducan, V. Tosa, <u>I. Bros</u> , M.L. Soran