


PERSONAL INFORMATION

ELENA NEACSU



 Valenii-de-Munte, Prahova, Romania

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Sex Female | Date of birth 16/11/1963 | Nationality Romanian

WORK EXPERIENCE

2010-present

**Senior engineer for technological development, PhD**

Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH), Radioactive Waste Management Department, 30, Reactorului St., P.O. box MG-6, 077125, Magurele, Ilfov, Romania; Website: <http://www.ifin.ro/>

Responsible for:

- Monitoring of the quality of spent nuclear fuel storage water
- Monitoring of physico-chemical characteristics of water streams from the Baita Bihor repository for LILW
- Radiochemistry and Analytical chemistry Laboratory set-up;
- Characterisation and treatment of aqueous LILW;
- Head of the Radioactive Waste Management Department (2018-present)
- Development of scientific research projects in the National and International Framework Programmes;
- Working in a research team for proposal research projects;

**Business or sector** Research and Development in RW management

2007-2010

**Senior engineer for technological development**

Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH), Radioisotopes and Radiation Metrology Department, 30, Reactorului St., P.O. box MG-6, 077125, Magurele, Ilfov, Romania; Website: <http://www.ifin.ro/>

Responsible for:

- Quality Control for radiopharmaceuticals and industrial radiography sources production;
- Monitoring of the quality of spent nuclear fuel storage water;
- Development of scientific research projects in the National and International Framework Programmes;
- Working in a research team for proposal research projects;

**Business or sector** Reserch and development in HLW management; research and development in radiopharmaceuticals field

1993 - 2007

**Junior researcher**

Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH), Radioisotopes and Radiation Metrology Department 30, Reactorului St., P.O. box MG-6, 077125, Magurele, Ilfov, Romania; Website: <http://www.ifin.ro/>

Responsible for:

- Methodology and quality assurance procedures acc. to AQ 07 for supervision of water used as moderator and coolant in the primary circuit of the nuclear reactor VVR-S IFIN by physico-chemical and radiochemical analysis to ensure the reactor operating security;
- Quality characterisation methodology for storage water of spent nuclear fuel from Spent Nuclear Fuel Storage Facility from NIPNE acc. to IAEA Safety Standards;
- „Water purification system for spent nuclear fuel storage basins (DCNU) of RN-VVR-S, by ion exchange resins filtration SPA-DCNU” (Omologation no.35/19.02.2001).
- Physico-chemical and radiochemical parameters monitoring for technological waters of National-Interest Special Installations: Nuclear Reactor VVR-S and Spent Nuclear Fuel Storage Facility;
- Research and production of radiopharmaceuticals for diagnosis and therapy;

**Business or sector** Reserch and development in HLW management; research and development in radiopharmaceuticals field

1990-1993

**Assistant Researcher**

Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH),  
Radioisotopes and Radiation Metrology Department 30, Reactorului St., P.O. box MG-6, 077125,  
Magurele, Ilfov, Romania; Website: <http://www.ifin.ro/>

Responsible for:

- Research and production of radiopharmaceuticals for diagnosis and therapy;
- Development of scientific research projects in the National and International Framework Programmes;

**Business or sector** Research and development in radiopharmaceuticals field

1987-1990 **Chemical Engineer**

INTEX Textile Enterprise, Paulesti, Prahova

Responsible for:

Textile dyeing technology

**Business or sector** Industry

EDUCATION AND TRAINING

2011 **PhD (Chemistry)**

University of Bucharest, Faculty of Chemistry, 36-46 Mihail Kogalniceanu Blvd, Sector 5, Bucharest, ROMANIA, [www.chimie.unibuc.ro](http://www.chimie.unibuc.ro)

1987 **Chemical Engineering Diploma**

University POLITEHNICA of Bucharest, Faculty of Chemical Technology, No. 1-7, Ghe. POLIZU street, sector 1, Bucharest, ROMANIA, [www.chim.pub.ro](http://www.chim.pub.ro)

PERSONAL SKILLS

Mother tongue(s) Romanian  
Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	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](http://www.europa.europa.eu/education/languages/framework/index_en.htm)

ADDITIONAL INFORMATION

- Major achievements
  - Project manager for relevant projects:
    - “Surveillance of quality of the water used as coolant and moderator for VVR-S IFIN nuclear reactor in order to ensure reactor safety operation”
    - “Quality Management Program for monitoring the quality of water used as coolant and moderator for VVR-S IFIN nuclear reactor in order to ensure reactor safety operation”
    - “Methods and technologies for radioactive decontamination”
    - “Monitoring of physico-chemical and radiochemical parameters of technological waters from VVR-S nuclear reactor and Spent Nuclear Fuel Repository at IFIN-HH “
    - “Experimental studies and research in the field of decommissioning nuclear / radiological installations and institutional radioactive waste management”
    - “Research, development, innovation in the field of decommissioning of nuclear/radiological facilities and management of institutional radioactive waste”
    - “The development, optimization and implementation of advanced techniques, methods and technologies for decommissioning nuclear installations and management of institutional radioactive waste in conditions of radiological safety for the operating personnel, the population and the environment”
  - Member in reserch team of relevant projects:
    - IAEA Viena Research Contract No. 11967/RO “Corrosion of Research Reactor Aluminium- Clad Spent Fuel in Water”
    - „Accreditation of Testing and Certification of Compliance of Radiopharmaceuticals, Radiochemicals and Radioactive Sources Laboratory (CPRLAB)”
    - “Expansion accreditation of testing activities in areas governed by European Directives at IFIN-HH”
    - “Development of the closure strategy of national repository of radioactive waste Baita, Bihor based on optimization of the engineering barriers system”
    - PHARE Project 2006/018 - 411.03.05 – “Modernization of the Radioactive Waste Treatment Station (STDR) within the National Institute for R&D for Physics and Nuclear Engineering “Horia Hulubei” (IFIN - HH),
    - PHARE Project 2006/018-411.03.06 - Modernization of the National Repository of Radioactive Waste Băița - Bihor
  - Responsible for the relevant activities:
    - Design, development, validate and implementation of aqueous LILW treatment technology;
    - Monitoring of physico-chemical characteristics of water streams from the Baita Bihor repository for LILW
    - Organization of a Radiochemistry and Analytical chemistry Laboratory;
    - Quality Control for production of radiopharmaceuticals in the Department of Radioisotopes and Radiation Metrology
    - Quality Control for production of sealed sources of 192Ir type SR-IR for industrial gammagraphy

Publications

- 1. L. R. Zicman, E. Neacsu, F. N. Dragolici, C. Ciobanu, Gh. Dogaru, O. C. Parvulescu, T. Dobre, Experimental and Modelling of Aqueous Radioactive Waste Treatment by Ultrafiltration, REV CHIM-BUCHAREST 69(5), 2018, 1149-1151
- 2. T. Dobre, L. R. Zicman, O. C. Parvulescu, E. Neacsu, C. Ciobanu, F. N. Dragolici, Species removal from aqueous radioactive waste by deep-bed filtration, Environmental Pollution 241, 2018), 303–310
- 3. M. Nicu, L. Ionascu, F. Dragolici, E. Neacsu, L. Zicman, B. Obreja, Comparison Study of Inorganic Cements to the Conditioning of the Secondary Radioactive Waste, Rom. J. Phys. 62, 2017, 805
- 4. L. R. Zicman , E. Neacsu , L. Done , F. N. Dragolici , T. Dobre, Effect of process factors on the performances of reverse osmosis process in an aqueous radioactive waste treatment plant, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 2017
- 5. L.R. Zicman, E. Neacsu L. Done, L.C. Tugulan, C. Alexandru, F.N. Dragolici, M. Nicu, L.F. Ionascu, B.T. Obreja, G. Dogaru, T. Dobre, Investigation and modeling of fixed bed cesium sorption on nickel ferrocyanide, precipitated on silica gel, Rom. J. Phys, 62, 2017, 806
- 6. B. T. Obreja, E. Neacsu, L. Done, F. Dragolici, L.Tugulan, L. Zicman, D. Scradeanu, Evaluation of environmental monitoring data at low and intermediate-level radioactive waste repository Baita, Bihor, Romania, Rom. J. Phys, 61 (3-4), 2016, 718 – 727
- 7. L.R. Zicman, E. Neacsu L. Done, L.C. Tugulan, F.N. Dragolici, , T. Dobre, Removal of 137Cs ions from aqueous radioactive waste using nickel ferrocyanide, precipitated on silica gel, Bulletin of Romanian Chemical Engineering Society, 2(1), 2015, 84-99
- 8. E. Neacsu, C. Tuta, V. Borza, C. Mustata, C. Podina, Determination of trace anions in water from the spent nuclear fuel wet storage, Journal of Labelled Compound and Radiopharmaceuticals 52, 2009, 265
- 9. D. Gurau, I. Iorga, L. Zicman, L. Done, E. Neacsu, Minimizing Radioactive Waste through Chemical Decontamination Techniques, Rom. J. Phys, 68, (2023), 909
- 10. E. Ionescu, D. Gurau, D. Stanga, M. Dragusin, E. Neacsu, Radiological Characterization Plan for Decommissioning a Radiological Installation: Overview and Importance of Planning, Progress in Nuclear Energy, 168, (2024), 104988
- For all papers, conferences, books, see: [https://www.nipne.ro/6280-staff\\_info.html](https://www.nipne.ro/6280-staff_info.html)

Memberships

Membership of:

- 1992-International Isotope Society;
- 1998-European Association of Nuclear Medicine
- 2007- Romanian Society for Radiological Protection
- 2014 – Romanian Chemical Engineering Society

Dr. Elena Neacsu, February, 2023

