

PERSONAL INFORMATION

Antoaneta ENE



- "Dunarea de Jos" University, Faculty of Sciences and Environment, Chemistry, Physics and Environment Department/Physics Division, 47 Domneasca Street, 800008, Galati, Romania
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- https://www.researchgate.net/profile/Antoaneta Ene/ https://scholar.google.ro/citations?user=RSsoZyUAAAAJ&hl=en http://www.researcherid.com/rid/C-1386-2011

Sex Female Date of birth 07/07/1964 Nationality Romanian

Professor doctor habilitated, "Dunarea de Jos" University of Galati, Romania POSITION WORK EXPERIENCE September 2015 -Full Professor, PhD habilitated present "Dunarea de Jos" University of Galati (UDJG), Romania - Doctoral supervisor, Coordinator of Industrial Engineering Doctoral domain Scientific Director of ReFORM-UDJG interdisciplinary research platform (Sept. 2018) Business or sector Doctoral School of Mechanical and Industrial Engineering September 2014 -Full Professor, PhD. present "Dunarea de Jos" University of Galati (UDJG), Romania, Faculty of Sciences and Environment Teaching and Research activities Business or sector Higher Education February 2004-Associated Professor, PhD. September 2014 "Dunarea de Jos" University of Galati (UDJG), Romania, Faculty of Sciences Teaching and Research activities Business or sector Higher Education September 2010-Head of Physics Division and Deputy Head of Chemistry, Physics and present **Environment Department** "Dunarea de Jos" University of Galati (UDJG), Physics Department Management Business or sector Higher Education January 2007-Head of Physics Department September 2010 "Dunarea de Jos" University of Galati (UDJG), Physics Department Management Business or sector Higher Education April 2005-**Deputy Head of Physics Department** January 2007 "Dunarea de Jos" University of Galati (UDJG), Physics Department Management Business or sector Higher Education



February 1996- February 2004	Lecturer (PhD from December 1997)						
	"Dunarea de Jos" University of Galati (UDJG), Romania, Faculty of Sciences						
	 Teaching and Research activities 						
	Business or sector Higher Education						
October 1991- February 1996	Assistant Lecturer						
	"Dunarea de Jos" University of Galati (UDJG), Romania, Faculty of Sciences and Letters						
	Teaching and Research activities						
	Business or sector Higher Education						
March 1991- October 1991	Associate Assistant						
October 1991	"Dunarea de Jos" University of Galati (UDJG), Romania, Faculty of Sciences and Letters						
	 Teaching activities 						
	Business or sector Higher Education						
March 1990 - March	Project Engineer						
1991	Rolling Mill Designing Institute IPROLAM, Bucharest, Romania, Galati Branch – Iron and Steel Works SIDEX Platform Projecting Activity, Measurement and Control Devices Division, Automatization 						
	Business or sector Metallurgical Industry						
October 1987 -	Physicist Engineer						
March 1990	PETROTUB Pipes Metallurgical Works, Roman, Neamt County, Romania						
	 Quality Technical Control Division (Laboratories of: Mechanical Testing; Defectoscopy; Chemistry – X-ray Fluorescence) 						
	Business or sector Metallurgical Industry						
EDUCATION AND TRAINING							
February 27, 2017	 Permit (second level) to exert nuclear activities. Domains: 1) Radiations generators - specialization: Analyses with X-rays; 2) Sealed radioactive sources - specialization: Applications with radioactive sources CNCAN Bucharest 						
	 Radiations generators, sealed radioactive sources 						
April 4, 2016 - April 22, 2016	Certificate in Security in Radiological Protection, Domain: Nuclear Engineering						
	 Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering Radiations generators, radiation detectors, interaction of radiations with matter, particle 						
	accelerators, sealed radioactive sources, open radioactive sources, radio-pharmaceuticals, calculation of dose rates and effective doses						
September 2015	Certificate of Doctor habilitated, Domain: Engineering Sciences, EQF level 8 Specialty: Industrial Engineering						
	"Dunarea de Jos" University of Galati, Doctoral School (Order of Ministry of Education and Research no.5343/29.09.2015)						
	 Title of Habilitation thesis: "Applications of high sensitivity analytical techniques in industry and pollution management for trace chemical composition characterization of complex samples". 						



Antoaneta ENE

October 2005 - June 2008	Math	Sc. Degree (2 nd specialty), Domain: Mathematics, Specialty: thematics informatics inarea de Jos" University of Galati, Faculty of Sciences								
	- Gen	eral and specialized gna studies. Title o	d courses of Ma	thematics and Inf	ormatics within the					
October 2005 - June 2007	Mana	c. Diploma, Domain: Environmental Sciences - Environment EQF level 7 agement and Monitoring								
	"Duna	"Dunarea de Jos" University of Galati, Faculty of Sciences								
	unive	eral and specialized ersitary studies cyc <i>ution studies</i> ".								
May 1993 - December 1997	Ph. D	D., Domain: Physics, Specialty: Elementary Particles Physics EQF level 8								
	Unive	University of Bucharest, Faculty of Physics								
	 Applications of the atomic and nuclear methods for the microstructural analysis of the materials from the metallurgical industry; Title of Ph. D. thesis: "Study of structure of microelements of iron ores, agglomerates and related iron and steel products by atomic and nuclear methods" (supervisor: Prof.dr. Calin Besliu). 									
September 1982 - July 1987		B. Sc. Degree in Engineering, Domain: Physics, Specialty: EQF level 6 Technological Physics								
	Unive	University of Bucharest, Faculty of Physics								
	Sect struc Activ	eral and specialized ion: Measuring and cture of some steels ration Analysis" (su	Control Device and thin rolled pervisor: Prof.di	s; Title of B. Sc. t <i>plates by X-ray F</i> . Calin Besliu).	hesis: "Study of the fluorescence methe	ne chemical				
September 1978 - July 1982	"Vasil	alaureate Degro le Alecsandri" High damental and speci	School of Galat	i	-	ysics				
PERSONAL SKILLS										
Mother ton	gue(s)	Romanian								
Other language(s)		UNDERST	ANDING	SPEA	KING	WRITING				
		Listening	Reading	Spoken interaction	Spoken production					
E	inglish	C2	C2	C2	C2	C2				
F	rench	C1	C1	B1	B2	C1				
		Levels: A1/A2: Basic u Common European Fr			icient user					
Communication skills	Good a	ommunication skills	gained through m	y experience as pr	ofessor and head o	of department				
Organisational / managerial skills	Un Vice- Coor	ident of the Scient iversity of Galati President of the So dinator for Industr Justrial Engineering	cientific Council ial Engineering (Faculty of Scie	of "Dunarea de Jo domain, Doctor	os" University of G al School of Me	Galati				

 Leadership (Chief of Physics Department/Deputy Head of Chemistry, Physics and Environment Dept.); manager of research projects in partnership



Antoaneta ENE



- Director of INPOLDE interdisciplinary network, created in the frame of RO-UA-MD MIS ETC 1676 EU funded project;
- Management skills (organizing national physics conferences with international participation as president or vice-president; Editor-in-chief of the Annals of "Dunarea de Jos" University of Galati, Fascicle II, Mathematics, Physics. Theoretical Mechanics; Coordinator of the "Atomic and Nuclear Spectroscopy" Laboratory of the "Physical-Chemical and Morpho-functional Analyses and Chemometry" institutionalized Research Center, "Dunarea de Jos" University of Galati, Romania)
- Experience in the management of the environment (Masters studies)

Job-related skills

Digital competence

- A good knowledge of the quality control processes in the industry and environment; Mastery of high precision and high sensitivity techniques for the analysis and the control of metallurgical, environmental and geological materials and environment monitoring; Mathematical modelling in industry and environment; competences in radiation protection
- Determination of trace elements and radioactivity of industrial materials; modelling of industrial and environmental processes;
- High precision and sensibility techniques (EDXRF, NAA, PIXE, AAS, UV-VIS, GC-MS, GC-ECD, SEM-EDX, ICP-OES, CVAAS) used for the monitoring of environmental pollution (soil, water, air, vegetation, wastewater sludge) with heavy metals, polycyclic aromatic hydrocarbons (PAHs) and pesticides;
- Employment of thermal-NAA technique for the determination of the transfer efficiencies of some minor and trace elements from raw and auxiliary materials to pig iron, slag and steel products during the metallurgical elaboration processes;
- Correlation of the results obtained by nuclear methods (NAA, PIXE, PIGE) on the structure of microelements in the technological flux ores-sinter-pig iron-steels with the mechanical properties of the finite products;
- Study of nuclear reactions with protons and deuterons on nuclides of elements existing in steel matrix and improvement of limits of detection of PIGE analysis of minor elements in steel by neutron-gamma ray coincidences measurements;
- Application of 14 MeV-NAA for the analysis of gold and other microelements in auriferous sands, concentrates and rocks at the level of economic extraction and for alkalis in auxiliary materials used in ferrous metallurgy;
- Researches and studies in metallurgical industry and materials science regarding: the vaporization of component elements from metallic bath during steel making in LD converter; the heat losses at continuous casting of slabs; the thermodynamic regime at the continuous casting of steel; structure identification of the aluminium eutectic alloys using colour metallography and TEM; coating of steel parts with stainless steel by metallothermal techniques; the explosions which take place in the recovery boilers and LD converters during the pauses between charges; the energy economy in metallurgical processes (preheating the metallic charge of electric arc furnaces with exothermal mixtures; utilization of 100% blast furnace gas at the cowpers; marsh gas replacement with blast furnace gas at the mixer heating and at heat treatment furnaces);
- Mathematical modelling of: steel desulphurization; LD steel deoxidation kinetics with manganese and aluminium; refractory lining of the LD converter; heat losses at the liquid metal transport in an integrated iron and steel works; energy savings in the heating furnaces;
- Researches and studies in materials science regarding the microstructure of synthesized diamonds, lithium nitrides and boron nitrides.
- Certificate of training for High Resolution Continuum Source Atomic Absorption Spectroscopy technique with ContrAA 700 (flame, graphite furnace, hydride generation) and UV-VIS Spectroscopy (Specord 200+) –Analytic Jena, Germany.

9	SELF-ASSESSMENT								
	Information processing	Communication	Content creation	Safety	Problem solving				
	Proficient user	Proficient user	Proficient user	Proficient user	Proficient user				

Digital competences - Self-assessment grid



- Data bases: ACCESS and SQL; Computer networks; Microsoft Office (Word, Excel, PowerPoint); HTML; C/C++ Software (B. Sc. degree in Mathematics informatics)
- Software for X and gamma spectra processing: GammaW, GUPIX, LEONE; ORIGIN, MATLAB, STATISTICA

Other skills

- Doctoral supervisor, Domain: Industrial Engineering, Doctoral School of Mechanical and Industrial Engineering, "Dunarea de Jos" University of Galati
- Evaluator of ARACIS Commission of Environmental Science
- Short term expert (from Oct. 2009), Specialization: Physical Engineering, Project POSDRU (Sector Operational Program of Human Resources Development) 2/1.2/S/2 "DOCIS ACPART" (Development of an Operational System of Trainings in Higher Education in Romania - National Agency for Trainings in Higher Education and for Partnership with the Social and the Economical Environment)
- Experience in quality ensuring in higher education (member of the Quality Assessment Commission of "Dunarea de Jos" University of Galati, between 2005-2009; President of Quality Assessment Commission of Faculty of Sciences and Environment, from 2012);
- Experience in coordinating and elaborating evaluation files by ARACIS (The Romanian National Council of Academic Evaluation and Accreditation of Higher Education Institutions) for B. Sc. and M. Sc. in the domain of Physics: Physics and Physical-Chemical Analyses in Material Science and Environment;
- High precision and sensibility techniques (NAA, PIXE, PIGE, EDXRF, AAS, ICP-OES, UV-VIS, GC-MS, GC-ECD, SEM) used for the characterization of advanced materials and evaluation of anthropogenic activities impact over environment and life quality and monitoring of environmental pollution – soil, water, air and biomonitors: mosses, mushrooms, vegetables, aquatic plants and organisms (fish);
- Nuclear and related analytical techniques for Environmental and Life Sciences part of the international program "HEAVY METALS IN EUROPEAN MOSSES - Monitoring longterm and large-scale changes in heavy-metal deposition".
- Invited lecturer and member of the scientific committee of the summer school "The 3rd Joint Seminar JINR-Romania on Neutron Physics for Investigations of Nuclei, Condensed Matter and Life Sciences", Targoviste, Romania, 24-30 July 2011;
- Reviewer at ISI journals "Journal of Hazardous Materials"; "Science of the Total Environment"; Microscopy and Microanalysis", "Polish Journal of Environmental Studies".,"Chemosphere", "Romanian Journal of Physics", "Environmental Science and Pollution Research", "Journal of Geochemical Exploration"; Romanian Biotechnological Letters, Polycyclic Aromatic Compounds, Ecotoxicology and Environmental Safety, Fresenius Environmental Bulletin, Spectroscopy Letters, Analytical and Bioanalytical Chemistry; Air Quality, Atmosphere & Health;Talanta;"Urban Water Research"
- Reviewer at IDB journals: "African Journal of Environmental Science and Technology"; "African Journal of Biotechnology", "African Journal of Pure and Applied Chemistry"; "Journal of Science and Arts"; "Chemistry Journal of Moldova", "Analele Universităţii "Dunărea de Jos" din Galaţi, Fascicula II, Mat.Fiz.Mec.teor.
- Official reviewer of doctoral theses University of Bucharest (Physics); Dunarea de Jos University of Galati (Industrial Engineering);
- Official reviewer of habilitation theses Polytechnic University of Timisoara (Industrial Engineering
- Official reviewer of dissertation and doctoral theses University of Cairo, Egypt.

ADDITIONAL INFORMATION

Memberships

- Member of the Romanian Society of Physics;
- Member of the General Association of Engineers from Romania (AGIR);
- Member of the European Physical Society (EPS) (2009)
- Member of "The International Cooperative Programme on Effects of Air Pollution on Natural Vegetation and Crops (ICP Vegetation)".
- Member of research team "Atomic and nuclear methods used in technologies", Atomic and Nuclear Physics Department, Faculty of Physics, University of Bucharest (1993-1998)
- Chair of the International Conference *Environmental Challenges in Lower Danube Euroregion*, Galati, June 25-26, 2015;
- Chair of the National Conferences of Applied Physics, 3rd and 4th Editions, Galati, 2007, 2008;



- Chair of 1st International Symposium on Applied Physics Materials Science, Environment and Health (ISAP1), Galati, November 28th-29th, 2009;
- Vice-President of National Conference on Applied Physics, First and 2nd Editions, Galati 2005, 2006;
- Member of the organizing/scientific committee of the conferences: National Conference of Physics CNF2008, Bucharest, September 10-13, 2008; "Applied Sciences in the Study of Environment and Materials", Targoviste, June 5-6, 2008 and April 28-30, 2010; European Dimensions of the Doctoral Programmes (Posdru 19524) International Workshop, July 21th
 July 22th, 2010, Galati; International Workshop Research Quality in Doctoral School, Increased Industrial and International Visibility, 13-14 July 2011, Galati; ISINN24, Dubna, Russia, May 24-27, 2016; ISINN25, Dubna, Russia, May 22-26, 2017.
- References
- Joint Institute of Nuclear Research (JINR), Dubna, Russia;
 Technological Educational Institute of Kavala, Greece;
- Institute of Zoology, Academy of Sciences of Moldova;
- Institute of Geology and Seismology, Academy of Sciences of Moldova;
- Katholieke Universiteit (KU) Leuven, Belgium

Honours and

awards

- 11 ISI-Web of Science articles awarded by CNCSIS/UEFISCDI:
- 1 habilitation thesis awarded by UEFISCDU PN-II-RU-ABIL-2015-2-109
- Certificate of Excellence in Reviewing Chemosphere journal, Elsevier
- Diploma of recognition of the Academy of Sciences of Moldova for outstanding contribution in the development of scientific and didactic collaboration, management of science, successful application of scientific results into practice and promoting the image of science (Chisinau, 12 October 2016)
- Courses
 - Physics (Faculty of Mechanics-Year I, Engineering Sections: "Industrial Engineering"; "Economic Engineering", "Applied Mechanics", "Managerial and Technological Engineering"; "Mechatronics"; Faculty of Food Engineering –section "Engineering of Food Products"; Faculty of Metallurgy and Materials Science -College "Control of Metallurgical Processes");
 - Radiometric Methods of Analysis (Faculty of Sciences-Year V, sections Chemistry-Physics and IV Physics-Chemistry and Physics-Mathematics);
 - Physics of the Protection against Radiations (Faculty of Sciences- Post-university Studies).
 - Devices and Methods of Measurement, Analysis and Control with Radiations (Faculty of Sciences- section of Post-university Studies).
 - Biophysics (Faculty of Food Engineering: section "Ecology and Environmental Protection")
 - Physics and Biophysics (Faculty of Medicine and Pharmacy-section Pharmacy);
 - Physics of Atom and Molecule (Faculty of Sciences Physics-Informatics, Physics, Physics-Chemistry and Physics-Mathematics);
 - Nucleus Physics (Faculty of Sciences Physics informatics);
 - Radiometric Techniques of Analysis and Control (Faculty of Sciences Master "Physical-Chemical Methods of Analysis and Control");
 - Transport and Diffusion of Pollutants (Faculty of Sciences -Master "Monitoring and Management of Environment")
 - Radioactive Pollution (Faculty of Sciences and Environment-Master "Monitoring and Management of Environment")
 - Integrated Monitoring of Environment (Faculty of Sciences and Environment -section "Environment Science")
 - Environmental Radioactivity (Faculty of Sciences and Environment -section "Environment Science")
 - Techniques used in monitoring of environment quality (Faculty of Sciences and Environment -Master "Monitoring and Management of Environment").

Publications • 40 articles in ISI journals;

- 71 articles in IDB journals; 7 articles in international refereed journals, 48 articles in CNCSIS journals; 26 books/chapters; 8 monographs published abroad;
 44 adited books and conference proceedings;
- 11 edited books and conference proceedings;
- **199 presentations** at international conferences; **26 papers** published in conference volumes, **58** at national conferences with international participation;
- > 300 citations in ISI and IDB journals; Research Gate Score RG=29.42 (02.05.2019);

Curriculum Vitae



- 18 international projects/grants as director/co-director, 1 national project as responsible of partner team; 12 projects as member in the research team; 2 grants ANCS - coordinator;
- 7 agreements of international cooperation as institutional coordinator.

Projects Research Projects as Director/Responsible:

- RESEARCH PROJECT 2010 JINR-Romania no. 22, Nuclear and related analytical techniques for environmental and life sciences, JINR Theme No. 03-4-1036-2001/2010, Order IUCN no. 57/08.02.2010/Project No.10, Nuclear Physics with Neutrons-Fundamental and Applied Investigations, Protocol No.3869-4-08/10, Leaders from Romania: Popescu Ion V., Ene Antoaneta, Cucu-Man Simona, Todoran Radu.
- RESEARCH PROJECT 2011 JINR-Romania no. 43, Nuclear and related analytical techniques for environmental and life sciences, JINR Theme no. 03-4-1104-2011/2013, Investigations in the Field of Nuclear Physics with Neutrons, Leaders from Romania: Popescu Ion (Director, Valahia University of Targoviste), Ene Antoaneta (Co-director, UDJ Galati), Cucu-Man Simona (Co-director, UAIC Iasi), Todoran Radu (Co-director, Univ. Baia Mare).
- RESEARCH PROJECT 2012 JINR-Romania no. 51, Crystallization processes and characteristics of cubic boron nitride studied by nuclear and related analytical and imaging techniques, JINR Theme no. 03-4-1104-2011/2013, Investigations in the Field of Nuclear Physics with Neutrons, Protocol No. 4113-4-11/13, Director from Romania: Ene Antoaneta.
- RESEARCH PROJECT 2012 JINR-Romania no. 66, Nuclear and related techniques for environmental and life sciences, JINR Theme no. 03-4-1104-2011/2013, Investigations in the Field of Nuclear Physics with Neutrons, Protocol No. 4080-4-2011-2013, Leaders from Romania: Popescu Ion (Project Director, Valahia University of Targoviste), Ene Antoaneta (Co-director, UDJ Galati), Cucu-Man Simona (Co-director, UAIC Iasi), Todoran Radu (Co-director, Univ. Baia Mare).
- RESEARCH PROJECT 2013 JINR-Romania no. 61, Nitrides characteristics in B-N and Li-N systems studied by nuclear and related analytical and imaging techniques, Order IUCN 82/18.02.2013 & Order IUCN 81/18.02.2013, JINR Theme no. 03-4-1104-2011/2013, Investigations in the Field of Nuclear Physics with Neutrons, Protocol No. 4113-4-11/13, Director from Romania: Ene Antoaneta.
- RESEARCH PROJECT 2013 JINR-Romania no. 72, Nuclear and related analytical techniques for the environmental and life sciences, Order IUCN 82/18.02.2013 & Order IUCN 81/18.02.2013, JINR Theme no. 03-4-1104-2011/2013, Investigations in the Field of Nuclear Physics with Neutrons, Protocol No. 4080-4-2011-2013, Leaders from Romania: Popescu Ion (Project Director, Valahia University of Targoviste), Stihi Claudia (Co-director, Valahia University of Targoviste), Cristiana Radulescu (Co-director, Valahia University of Targoviste), Ene Antoaneta (Co-director, UDJ Galati), Cucu-Man Simona (Co-director, UAIC Iasi).
- Project MIS ETC code 1676 "Cross-border interdisciplinary cooperation for the prevention of natural disasters and mitigation of environmental pollution in Lower Danube Euroregion" (19.12.2013-31.12.2015), Grant Contract 92370/11.12.2013, Grant Project funded by European Union (ENPI), Joint Operational Programme Romania-Ukraine-Republic of Moldova, Priority 2 – Environment and emergency preparedness, Sector code DACCRS:41082 - Environmental research, Project Manager: Ene Antoaneta.
- RESEARCH PROJECT 2014 JINR-Romania no. 78, Characterization of crystalline diamonds, boron and lithium nitrides using nuclear and related analytical techniques and imaging microscopy, JINR Theme no. 03-4-1104-2011/2016, Investigations in the Field of Nuclear Physics with Neutrons, Protocol No. 4321-4-14/16, Director from Romania: Ene Antoaneta.
- RESEARCH PROJECT 2015 JINR-Romania no. 87, Nuclear and related analytical techniques applied for air pollution and vegetation with heavy metals, nitrogen, and radionuclides,, Leaders from Romania: I.V.Popescu, C. Stihi, Ene A, S. Cucu-Man, R. Todoran.
- RESEARCH PROJECT 2015 JINR-Romania no. 84, Investigation of crystalline materials (diamonds, boron and lithium nitrides) using atomic and nuclear analytical techniques and imaging microscopy JINR Theme no. 03-4-1104-2011/2016, Investigations in the Field of Nuclear Physics with Neutrons, Protocol No. 4321-4-14/16, Director from Romania: Ene Antoaneta.
- RESEARCH PROJECT 2016 JINR-Romania no. 104, Investigation of crystalline materials (diamonds and boron nitrides) using atomic and nuclear analytical techniques and imaging microscopy, Theme no. 03-4-1104-2011/2016, Investigations in the Field of Nuclear Physics with Neutrons, Protocol No. 4321-4-14/16, Director from Romania: Ene Antoaneta.
- RESEARCH GRANT JINR-Romania no. 24/2016, Development of infrastructure of spectroscopy and microscopy laboratories used for the characterization of environmental and crystalline materials, Theme no. 03-4-1104-2011/2016, Director from Romania: Ene Antoaneta.
- RESEARCH PROJECT 2017 JINR-Romania no. 80, Investigation of advanced functional materials using atomic and nuclear analytical techniques and imaging microscopy, Theme no. 03-4-1128-2017/2019,



Investigations of Neutron Nuclear Interactions and Properties of the Neutron, Protocol No. 4613-4-17/19, Director from Romania: Ene Antoaneta.

- RESEARCH PROJECT 2017 JINR-Romania no. 81, Applied research on air and soil pollution with toxic elements using nuclear and related analytical techniques, Theme no. 03-4-1128-2017/2019, Investigations of Neutron Nuclear Interactions and Properties of the Neutron, Protocols Nos. 4619-4-17/19,4613-4-17/19,4610-4-17/19, Leaders from Romania: Stihi Claudia (Project Director, Valahia University of Targoviste), Ene Antoaneta (Co-director, UDJ Galati), Dan-Gabriel Ghita (Co-director, IFIN-HH Magurele).
- Project no. 72-172/2008, PN-II, 2008-2011; Research direction no. 7, Tehnici de Inalta Precizie si Sensibilitate Aplicate in Retele de Biomonitorizare a Poluarii Mediului cu Factori Poluanti din Zonele de Dezvoltare de Sud, Sud-Est si Centrala ale Romaniei / High precision and sensibility techniques applied in biomonitoring networks of environmental pollution with polluting factors from South, South-East and Central development regions of Romania (acronym: TIPSARMER), responsible Partner 1 - Ene Antoaneta (Dunarea de Jos University of Galati); Director: Prof. Dr. Ion V. Popescu, University Valahia of Targoviste.
- RESEARCH PROJECT 2018 JINR-Romania no. 111, Assessment of industrial impact on agroecosystems and human health risk in Romania using nuclear and related analytical techniques, Theme no. 03-4-1128-2017/2019, Leaders from Romania: Ene Antoaneta (Project Director, UDJ Galati), Stihi Claudia (Project Responsible, Valahia University of Targoviste).
- RESEARCH PROJECT 2018 JINR-Romania no. 112, Assessment of air and soil quality in Romania studied by NAA and related analytical techniques, Theme no. 03-4-1128-2017/2019, Leaders from Romania: Stihi Claudia (Project Director, Valahia University of Targoviste), Ene Antoaneta (Project Responsible, UDJ Galati).
- · Project Joint Operational Programme Black Sea Basin 2014-2020, code BSB27, Title: Black Sea Basin interdisciplinary cooperation network for sustainable joint monitoring of environmental toxicants migration, improved evaluation of ecological state and human health impact of harmful substances, and public exposure prevention (MONITOX), Grant contract 105070/14.09.2018, Project Manager Ene Antoaneta.
- Project Joint Operational Programme Black Sea Basin 2014-2020, code BSB165, Title: Creating a system of innovative transboundary monitoring of the transformations of the Black Sea river ecosystems under the impact of hydropower development and climate change (HydroEcoNex), Grant contract 105067/14.09.2018, Project coordinator Ene Antoaneta (Dunarea de Jos University of Galati).

ANNEX

List of relevant publications

1. Books:

- Ene, A., Chapter 3– X-ray fluorescence technique, pp. 61-88 (28 pag.), in: Instrumental Techniques for Environmental Investigations: Methodological Guide = Tehnici Instrumentale pentru Investigații de Mediu: Ghid Metodologic (Editor Ene, A.), Ed. Tehnopress, Iasi, 2015, ISBN 978-606-687-233-1, 220 p. Ene, A., Capitolul 3 Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de raze X, pp. 169-196 (28 pag.), in: Instrumental Techniques for Environmental Investigațions: Methodological Guide = Tehnica fluorescenței de ra 1
- 2. Guide = Tehnici Instrumentale pentru Investigații de Mediu: Ghid Metodologic (Editor - Ene, A.), Ed. Tehnopress, Iasi, 2015, ISBN 978-606-687-233-1, 220 p.
- 3. Bogdevich O., Ene, A., Chapter 4 - Gas chromatography technique in environmental analyses, pp. 89-112 (24 pag.), in: Instrumental Techniques for Environmental Investigations: Methodological Guide = Tehnici Instrumentale pentru Investigații de Mediu: Ghid Metodologic (Editor - Ene, A.), Ed. Tehnopress, lasi, 2015, ISBN 978-606-687-233-1, 220 p.
- Bogdevich O., Ene, A., Capitolul 4 Tehnica cromatografiei de gaze în analize de mediu, pp. 197-220 (24 pag.), in: Instrumental Techniques for Environmental Investigations: Methodological Guide = Tehnici Instrumentale pentru Investigații de Mediu: Ghid Metodologic (Editor Ene, A.), Ed. Tehnopress, Iasi, 2015, ISBN 4. 978-606-687-233-1, 220 p.
- 5. Antoaneta ENE, Yuriy Denga, Richard Lisovskyi, Tatiana Gavrilova, Oleg Bogdevich, Elena Zubcov, Atlas of Maps (Editors - Ene, A., Denga Yu., Bogdevich O., Zubcov E.), Ed. Tehnopress, Iasi, 2015, ISBN 978-606-687-235-5, 40 p.
- Antoaneta ENE, Habilitation Thesis, Applications of high sensitivity analytical techniques in industry and pollution management for trace chemical composition 6. characterization of complex samples, Universitatea Dunărea de Jos din Galați, 2015.

2. Papers published in ISI-Thomson (Web of Science) journals

- Badica, T., Besliu, C., Ene, A., Olariu, A., Popescu, I., 1996, Coincidence method for the determination of minor elements in steel by proton- induced prompt gamma-ray spectrometry (PIGE), Nuclear Instruments and Methods in Physics Research B111, 321 324, ISSN 0168-583X. 1
- 2. Popescu, I., Badica, T., Olariu, A., Besliu, C., Ene, A., Ivanescu, Al., 1996, Multielemental analysis of metallurgical samples by thermal neutron activation, Journal of Radioanalytical and Nuclear Chemistry, Letters 213(5), 369-376, ISSN 0236-5731.
- Ene, A., Badica, T., Olariu, A., Popescu, I.V., Besliu, C., 2001, Coincidence method for the analysis of minor elements in steel by deuteron-induced prompt g-ray 3. spectrometry (d-PIGE), Nuclear Instruments and Methods in Physics Research, B179, 126 - 132, ISSN 0168-583X
- 4 Lupu, R., Nat, A., Ene, A., 2004, Determination of gold in Romanian auriferous alluvial sands and rocks by 14 MeV neutron activation analysis, Nuclear Instruments and Methods in Physics Research, B217, 123 - 135, ISSN 0168-583X;.
- Ene, A., 2004, Improvement of sensitivity in PIGE analysis of steels by neutron-gamma coincidences measurement, Nuclear Instruments and Methods in Physics 5 Research B222, 228 – 234, ISSN 0168-583X
- 6. Nat, A., Ene, A., Lupu, R., 2004, Rapid determination of gold in Romanian auriferous alluvial sands, concentrates and rocks by 14 MeV NAA, Journal of Radioanalytical and Nuclear Chemistry 261(1), 179 - 188, ISSN 0236-5731. 7.
- Ene, A., Popescu, I.V., Badica, T., 2006, Determination of carbon in steels using particle-induced prompt gamma ray spectrometry, Journal of Optoelectronics and Advanced Materials 8(1), 222-224, ISSN 1454-4164. 8
- Popescu, I.V., Ene, A., Štihi, C., Bancuta, A., Dima, G., Badica, T., Ghisa, V., 2007, Analytical applications of particle-induced X-ray emission (PIXE), BPU-6, AIP Conference Proceedings 899, p. 538, ISBN 978-0-7354-0404-5, Journal ISSN:0094243X Ene, A., Popescu, I.V., Badica, T., 2007, Multi-elemental analysis of steel by combined nuclear techniques, BPU-6, AIP Conference Proceedings 899, p. 539, ISBN 9.
- 978-0-7354-0404-5, Journal ISSN:0094243X 10. Ghişă V., Popescu I. V., Belc M., Ene A., 2008, Study of some Roman brooches discovered at Tomis - Constanta by X-Ray Fluorescence technique, Rom. Journ.
- Phys. 53 (3-4), 557-562, ISSN 1221-146x
- 11. G.Murariu, Antoaneta Ene, 2008, Discussions on a Non-Linear Fields' Equations System, Rom. Journ. Phys. 53 (5-6), 651-658, ISSN 1221-146x.

Curriculum Vitae



- Ene A., Popescu I. V., Ghisa V., 2009, Study of transfer efficiencies of minor elements during steelmaking by neutron activation technique, Romanian Reports in 12. Physics 61(1), 165-171, ISSN 1221-1451.
- Moraru L., Ene A., Murariu G., 2009, High-accuracy structure identification of the aluminium eutectic alloys using the colour metallography, Romanian Reports in 13 Physics 61(4), 700-708, ISSN 1221-1451.
- Ene, A., Pantelica, A, 2010, Study of transfer of minor elements during ironmaking by neutron activation analysis, Radiochimica Acta, 98 (1), 53-57, ISSN 0033-14. 8230. DOI: 10.1524/ract.2010.1685
- 15. Ene, A., Popescu, I.V., Stihi C., Gheboianu A., Pantelica A., Petre C., 2010, PIXE analysis of multielemental samples, Rom. Journ. Phys. ISSN 1221-146x, 55 (7-8), 806-814
- Ene, A., Bosneaga A., Georgescu L., 2010, Determination of heavy metals in soils using XRF technique, Rom. Journ. Phys. ISSN 1221-146x, 55 (7-8), 815-820. 16
- Stihi C., Radulescu C., Busuioc G., Popescu I. V., Gheboianu A., Ene A., 2011, Studies on accumulation of heavy metals from substrate to edible wild mushrooms, 17. Rom. Journ. Phys. 56(1-2), 257-264. Ene, A., Pantelica A., Freitas M.C., Bosneaga A., 2011, EDXRF and INAA analysis of soils in the vicinity of a metallurgical plant, Rom. Journal Phys. 56 (7-8), 993-18.
- 1000. 19. Ene, A., Pantelica A., 2011, Characterization of metallurgical slags using low-level gamma-ray spectrometry and neutron activation analysis, Rom. Journal Phys. 56
- (7-8), 1011-1018.
- 20 Pantelica A., Ene A., Gugiu M., Ciortea C., Constantinescu O., 2011, PIXE analysis of some vegetal species, Rom. Rep. Phys. 63(4), 997-1008.
- Ene, A., Bosneaga A., Georgescu L., 2011, Evaluation of soils pollution with heavy metals using XRF technique, Journal of Environmental Protection and Ecology 12(3A), 1247-1254; erata: Journal of Environmental Protection and Ecology 12(4A) (2011), 2393. 21.
- Ene A., Bogdevich O., Sion A., Spanos T., 2012, Determination of polycyclic aromatic hydrocarbons by gas chromatography-mass spectrometry in soils from 22 Southeastern Romania, Microchemical Journal, 100, 36-41, issn 0026-265X, doi:10.1016/j.microc.2011.08.006. 23.
- Pantelica A., Ene A., Georgescu I.I., 2012, Instrumental neutron activation analysis of some fish species from Danube River in Romania, Microchemical Journal, 103, 142-147, doi:10.1016/j.microc.2012.02.005. 24.
- Zubcov E., Zubcov N., Ene A., Biletchi L., 2012, Assessment of copper and zinc levels in fish from freshwater ecosystems of Moldova, Environmental Science and Pollution Research, 19(6), 2238-2247, ISSN: 0944-1344 (Print) 1614-7499 (Online), doi: 10.1007/s11356-011-0728-5. Ene A., Bogdevich O., Sion A., 2012, Levels of organochlorine pesticides (OCPs) and polycyclic aromatic hydrocarbons (PAHs) in topsoils from SE Romania, Science of the Total Environment, 439, 76–86, ISSN: 0048-9697, DOI: 10.1016/j.scitotenv.2012.09.004. 25
- Pantelica A., Freitas M.C., Ene, A., Steinnes, E., 2013, Soil pollution with toxic trace elements in selected Romanian sites studied by instrumental neutron activation 26.
- analysis, Radiochimica Acta, 101, 45-50, DOI: 10.1524/ract.2013.1989. 27. O.V. Ignatenko, V.A. Komar, S.V. Leonchik, N.A. Shempel, A. Ene, A. Cantaragiu, M.V. Frontasyeva, V.N. Shvetsov, 2013, Changes of nitrides characteristics in Li-N system synthesized at different pressures, Journal of Alloys and Compounds, 581, 23-27, DOI: 10.1016/j.jallcom.2013.06.173.
- Thomas Spanos, Antoaneta Ene, Irina B. Karadjova, Assessment of Toxic Elements Cu, Cr, Ni, Pb, Cd, Hg, Zn, As and Hexavalent Chromium in Sewage Sludge from Municipal Wastewater Treatment Plants by Combined Spectroscopic Techniques, *Rom. Journ. Phys.* 60 (1-2) (2015), 237-245, ISSN 1221-146x. Harmens, H., D. A. Norris, K. Sharps, G. Mills, R. Alber, Y. Aleksiayenak, O. Blum, S.-M. Cucu-Man, M. Dam, L. De Temmerman, Ene, A., J. A. Fernández, J. 28
- 29. Martinez-Abaigar, M. Frontasyeva, B. Godzik, Z. Jeran, P. Lazo, S. Leblond, S. Liiv, S.H. Magnússon, B. Maňkovská, G. Phil-Karlsson, J. Piispanen, J. Poikolainen, J.M. Santamaria, M. Skudnik, Z. Spiric, T. Stafilov, E. Steinnes, C. Stihi, I. Suchara, L. Thöni, R. Todoran, L. Yurukova, H. G. Zechmeister, 2015, Heavy metal and nitrogen concentrations in mosses are declining across Europe whilst some "hotspots" remain in 2010, Environmental Pollution 200, 93-104, doi:10.1016/j.envpol.2015.01.036.
- 30 Spanos, Thomas, Antoaneta Ene, Christina Xatzixristou, Agelos Papaioannou, 2015, Assessment of Groundwater Quality and Hydrogeological Profile of Kavala
- Area, Northern Greece, Romanian Journal of Physics 60 (7-8), 1139-1150. Spanos, T., Ene, A., Simeonova, P., 2015, Chemometric expertise of the quality of groundwater sources for domestic use, JOURNAL OF ENVIRONMENTAL 31 SCIENCE AND HEALTH PART A-TOXIC/HAZARDOUS SUBSTANCES & ENVIRONMENTAL ENGINEERING, 50(11), 1099 -1107. DOI:10.1080/10934529.2015.1047646.
- 32. Pintilie, V., Ene, A., Georgescu, L.P., Moraru, L., Iticescu, C., 2016, Measurements of gross alpha and beta activity in drinking water from Galati region, Romania, Romanian Reports in Physics 68 (3), 1208-1220.
- 33 Moraru, L., Obreja, C.D., Moldovanu, S., Ene, A., Biswas, A., 2016, Blood pressure and flow values in small vessels angioarchitectures: application for diabetic retinopathy, Romanian Journal of Physics 61 (7-8), 1287-1298.
- Spanos, T., Ene, A., Patronidou, C.S., Xatzixristou, C., 2016, Temporal variability of sewage sludge heavy metal content from Greek wastewater treatment plants, Ecological Chemistry and Engineering. S = Chemia i Inzynieria Ekologiczna. S, 23(2), 271-283, 34 DOI:10.1515/eces-2016-0019.
- 35. Pintilie, V., Ene, A., Georgescu L.P., Moraru, D.I., 2017, Gross Alpha, Gross Beta and 40K Activities and Daily Effective Dose Due to Natural Radionuclides from Food Supplements, Romanian Journal of Physics 62 (7-8), Art. Nr. 703.
- 36 Stihi C., Popescu I.V., Frontasyeva M., Radulescu C., Ene A., Culicov O., Zinicovscaia I., Dulama I.D., Cucu-Man S., Todoran R., Gheboianu A.I., Bucurica A., Bancuta I., Dima G., 2017, Characterization of Heavy Metal Air Pollution in Romania Using Moss Biomonitoring, Neutron Activation Analysis, and Atomic Absorption Spectrometry, Analytical Letters, 50(17), 2851–2858, DOI: 10.1080/00032719.2016.1275661. Violeta Pintilie, Antoaneta Ene, Lucian P. Georgescu, Dana Iulia Moraru, Adelina Pintilie, Determination of gross alpha, gross beta, and natural radionuclides (²¹⁰Po,
- 37 210Pb, 238U, 332Th and 40K) activity concentrations in bread and their contribution to the effective dose, 2018, Romanian Journal of Physics, 63(1-2), Art. Nr. 801.
- 38. Violeta Pintilie, Antoaneta Ene, Lucian P. Georgescu, Adelina Georgiana Pintilie, Dana Iulia Moraru, Catalina Iticescu, Gross alpha, gross beta and radionuclides (210Po, 210Pb, 238U, 232Th, 226Ra and 40K) exposure assessment due to meat consumption, 2018, Journal of Radioanalytical and Nuclear Chemistry, 318(2), 991-1000, DOI:10.1007/s10967-018-6156-y.
- 39 Gosav S., Ene A., Aflori M., Characterization and Discrimination of Plant Fossils by ATR-FTIR, XRD and Chemometric Methods, 2019, Romanian Journal of Physics, 64(1-2), Art. Nr. 806.
- 40 Stefan Nickel: Winfried Schröder: Roman Schmalfuss: Maike Saathoff: Harry Harmens: Gina Mills: Marina V. Frontasveva: Lambe Barandovski: Oleg Blum: Aleio Carballeira; Ludwig de Temmermann; Anatoly M. Dunaev; Antoaneta Ene; Hilde Fagerli; Barbara Godzik; Ilia Ilvin; Sander Jonkers; Zvonka Jeran; Pranvera Lazo; Sebastien Leblond; Siiri Liiv; Blanka Mankovska; Encarnación Núñez-Olivera; Juha Piispanen; Jarmo Poikolainen; Ion V. Popescu; Flora Qarri; Jesus Miguel Santamaria; Martijn Schaap; Mitja Skudnik; Zdravko Špirić; Trajce Stafilov; Eiliv Steinnes; Claudia Stihi; Ivan Suchara; Hilde Thelle Uggerud; Harald G. Zechmeister, Modelling spatial patterns of correlations between concentrations of heavy metals in mosses and atmospheric deposition in 2010 across Europe, 2018, Environmental Sciences Europe, 30, Art. Nr. 53, pp 1-17, https://doi.org/10.1186/s12302-018-0183-8.