

Section C – CV

C.1 CURRICULUM VITAE

Personal information

Name, Surname:	Adriana-Mariana, BORȘ		
Date of birth:	06.07.1975	Sex:	Female
Nationality:	Romanian		
Researcher unique identifier(s) (ORCID, Researcher ID etc.):	https://orcid.org/0000-0003-4928-8159 WoS Researcher ID: AAB-3230-2019; Scopus AuthorID:16308725100		
URL for personal website (if case):	U-1700-035Y-5893, https://ihp.ro/bors.htm		

Education

Year	Faculty/department - University/institution - Country
1994-1998	Faculty of Chemistry/ General Chemistry - University of Bucharest, Romania
2007 (dissertation defended)	Ph.D. in the field of exact sciences, Chemistry, POLITEHNICA University of Bucharest, Faculty of Applied Chemistry and Materials Science; thesis title: Monitoring the emissions of Persistent Organic Pollutants in order to reduce the impact on the environment
1999-2001	Master, University of Bucharest, Faculty of Chemistry, specialization, "Catalysis and heterogeneous catalytic processes"
2002-2004	Master, POLITEHNICA University of Bucharest, Faculty of Energy, specialization, "Environmental Management"
2000 – 2003	Postgraduate training and continuous professional development program, Exact Sciences, Chemistry field, at the University of Bucharest, Faculty of Chemistry, "Catalytic de-pollution of gaseous streams with VOC content"
2007	Summer School, "Environmental Chemistry and Ecotoxicology", Masaryk University Brno-RECETOX, EU DG Research-Centre of Excellence for Environmental Chemistry and Ecotoxicology, "The advances and Trends in Environmental Chemistry and Ecotoxicology of Persistent, Toxic Substances"
2011 - 2012	Postgraduate course, University of Turin, Italy - International Programs on Research and Training on Sustainable Management of Mountain Areas, "Natural Hazards and Disaster Risk Management in Mountains"

Positions - current and previous

(Academic sector/research institutes/industrial sector/public sector/other)

Year	Project title - Role – Funder – Budget – link to project webpage
2024	CSI Dr. chemist Leading Researcher (R4) at INOE 2000- Subsidiary Hydraulics and Pneumatics Research Institute (IHP), Bucharest- Romania
2018-2023	CS I Dr. chemist - at ICPE SA, "Remus Raduleț" Electrotechnical Research Institute-Center No.10 and "Servomotors" Center No. 3 (SME)
2000-2018	Scientific Researcher Chemist at the National Research and Development Institute for Environmental Protection - (INCDPM) Bucharest Romania, from 2008 - Scientific Researcher grade III (CS III) and from 2011 - Scientific researcher grade II (CS II);
2011-2015	Head of the Natural and Technological Hazards Department, INCDPM -Romania
2012-2012	Head of the Natural and Anthropogenic Hazards Department Global warming, INCDPM
2009-2010	Expert auditor, Chemistry - Key, Environmental management systems, Specialist and ISO 14001- Audit checker for TUV Rheinland InterCerc/TUV Rheinland Romania SRL, "System Certification" Department (ISO 14001, ISO 17021, ISO 19011, ISO 9001), RO
2009	Promote Strategies for Sustainable Management of Medical Wastes, 2009

2007-2009	Chemist, national expert in Persistent Organic Pollutants at the Association of Environmental Experts, Bucharest- Romania
2007	Member of the working group - "Waste and dangerous chemical substances", nominated by Order no. 170 of 19.07.2007 of the Ministry of the Environment - establishment of the organizational structure in order to update the National Action Plan for Environ.Protection.

Career breaks (if case)

Year	Reason
-	-

Project management experience

(Academic sector/research institutes/industrial sector/public sector/other. Please list the most relevant.)

Year	Project title - Role – Funder – Budget – link to project webpage
2010-2012	Training and support for enterprises and employees to improve skills in sustainable development", ID 41910/2009, Sectoral Operat. Prog. Human Resources Development 2007-2013, Lecturer
2010-2013	Climate of the Carpathian Region - CARPATCLIM, Harmonization of climate databases from different countries, the spatial area of interest being represented by the Carpathian mountain chain, European Commission-Joint Research Center, Expert https://www.incdpm.ro/portfolios/climate-of-the-carpathian-region/?lang=ro https://climate-adapt.eea.europa.eu/en/metadata/projects/climate-of-the-carpathian-region
2011	Risk analysis methods used in environmental projects taking into account the estimated costs and benefits, PN 09 06 01 05, ANCS, project manager
2011-2013	Increasing the skills of enterprises and employees in the perspective of sustainable development, in 4 regions North-West, North-East, Centre and West, POSDRU/81/3.2/S/59322, co-funded by the European Social Fund, Lecturer
2013	Research on modeling the dispersion of pollutants in the atmosphere based on the intercomparison of models of the new generation; Phase 3: Develop national and sector forecasts of emissions of SO ₂ , NO _x , volatile organic compounds, ammonia and dust, considering 2015, 2020, 2030, 2050 as the target year, PN 09060114.3/ 2013, ANCS, Expert
2011-2017	Environmental impact monitoring of works to improve navigation conditions on the Danube between Călărași and Brăila, km 375 and km 175, Expert : Air quality and noise level monitoring, Ctr. 53/2011, ROMOMED; EU Co-funding (ER DF) , http://www.afdj.ro/en/content/romomed ,
2013	Study on the identification of the modalities for elaborating the Annual Report on the state of the environment in Romania according to the European Environment – State Report (SOER), Ministry of the Environment and Climate Change, 2013, Expert https://www.incdpm.ro/portfolios/study-on-the-identification-of-the-modalities-for-elaborating-the-annual-report-on-the-state-of-the-environment-in-romania-according-to-the-european-environment-state-report-soer/
2013	Inventory of combustion plants with a rated thermal input <50MW and fixed engines with spark ignition or compression and the assessing their contribution emissions to total emissions of air pollutants; Expert , Ministry of Environment and Climate Change, https://www.incdpm.ro/portfolios/inventory-of-combustion-plants-with-a-rated-thermal-input/
2013-2014	Addressing the divide between the EU indicators and their practical implementation in the green construction and eco-social re-qualification of residential areas in South East Europe regions (BUILD SEE), team member , European Commission, South East Europe Programme, https://www.incdpm.ro/portfolios/addressing-the-divide-between-the-eu-indicators-and-their-practical-implementation-in-the-green-construction-and-eco-social-re-qualification-of-residential-areas-in-south-east-europe-regions-build-se/ ,

2015-2017	Training And Awareness Rising Campaigns Regarding The Potential Human Health And Environmental Risks Associated To Hazardous Substances And Waste (TARCHS), EEA Grants, within Programme RO 04 – Reduction of hazardous substances, Second Call – Formation and awareness campaigns, team member , https://www.incdpm.ro/portfolios/training-and-awareness-rising-campaigns-regarding-the-potential-human-health-and-environmental-risks-associated-to-hazardous-substances-and-waste-tarchs/?lang=ro
2017-2021	Eco-Nanotechnologies for Water Pollution and Waste Recovery, POC G, P_40_253, SMIS 105558, Ctr. No.: 130/23.09.2016, type D project manager , The European Regional Development Fund through the Competitiveness Operational Program 2014-2020, Priority Axis 1, Action 1.2.3., Partnerships for knowledge transfer, https://nanostructuri-fluide.ro/eco-nano-eco/
2018-2020	Automotive industry and components and increasing traffic safety - KTAutoComp I - MOSERVEL, type D - Industrial research and / or experimental development (R&D) activities, Ctr. no. 85 / 08.09.2016, cod SMIS 105552, (ID P_40_390), Contract: 2794/13.06.2018, team member , https://www.icpe.ro/ro/proiecte/moserver/
2018-2020	Robotic Winding of Electrical Motors, P 3 - SP 3.2 - ERA.NET - COFUND-MANUNET III-R4Win, Project no. 36/2018, UEFISCDI, team member , http://www.icpe.ro/r4win/
2019-2020	Cloudbased Maintenance IIoT Platform for Smart Manufacturing, P 3 - SP 3.2 - COFUND-ERANET MANUNET III-CM4Smart, Project no: MNET 18/NMCS-3516, UEFISCDI, team member , https://www.icpe.ro/cm4smart/
2019-2021	MATI2IT, project co-financed by the European Regional Development Fund through the Competitiveness Operational Programme 2014 – 2020 “Investments for your future”, team member , Project no. 1788/09.08.2019, https://www.icpe.ro/projects/mati2it/
2020-2021	Cost-effective production process for innovative high-performance electric motors, P 3 - SP 3.5 - EUROSTARS-2019-E!12367-iTorque, Project no. 125/2020, UEFISCDI, team member , http://www.icpe.ro/itorque/
2020-2022	Self-regulating temperature heating cable for home heating and preventing ice formation on building's adjacent surfaces, P 2 - SP 2.1 - PN-III-P2-2.1-PED-2019-3073, Ctr. No: 446PED / 2020, project manager P1, State budget, https://www.icpe.ro/smarthc/
2021	Heat Guides Fabricated Using Additive Manufacturing for Enhanced Heat Transfer in Next Generation Electrical Motors, Project no. 651/2021, Expert Key , https://www.icpe.ro/projects/heatgem/
2020-2022	Range of prototypes for automatic capacitive compensators designed to improve power factor and load balancing in low voltage electrical networks, P 2 - SP 2.1 -PN-III-P2-2.1-PTE-2019-0694, Project no. 41PTE / 2020, UEFISCDI, team member , http://www.icpe.ro/ro/proiecte/smartq/
2023	Mobility projects for experienced researchers from the diaspora (Adinel Gavrus), PNCDI IV, P 5.2 - SP 5.2.2, MCD-2023, PN-IV-P2-2.2-MCD-2023-0063, project manager
2021-2024	ACROBA, project co-funded by the European Union’s Horizon 2020 programme, project responsible (project management), https://www.icpe.ro/projects/acroba/ https://acrobaproject.eu/consortium/
2022 - 2024	Inertial energy storage device for local electrical microgrids protection (DISEP), team member , PN-III-P2-2.1-PTE-2021-0639, https://www.icpe.ro/disep/
2022 - 2025	Multi-functional, multi-material magnetic components and structures for electrification Call name: EC - Horizon Europe, Horizon-243017-101091392, team member , https://multimag-project.eu/consortium/

Other relevant professional experiences

(e.g. institutional responsibilities, organisation of scientific meetings, membership in academic societies, review boards, advisory boards, committees and major research or innovation collaborations, other commissions of trust in public or private sector)

Year	Description - Role
2017	member of the editorial team EEA- Electrotehnică, Electronică, Electronic, Automatic magazine
2017	B.E.N.A. Balkan Environmental Association
2014	Global Alliance for alternatives to DDT
2007	Expert Group on DDT_ Stockholm Convention
2011	Conference of the Parties to the Stockholm Convention, member designated by the Gov. of RO
2019	Representative of the Stakeholder group for the review of the policy regarding the transition towards a low emission economy (SHREC)
2017	SUERD Advisory Council
2018	ICPE - SSICPE Scientific Society

C.2 Track record of the last 10 years

A list of the ten most important scientific outputs (publications, patents, technologies etc).

- 1.A.-R..Caramitu, I. Ion, **A.-M.Bors***, V.Tsakiris, J.Pintea,, A.-M.D. Caramitu, Preparation and Spectroscopic Characterization of Some Hybrid Composites with Electromagnetic Shielding Properties Exposed to Different Degradation Factors, January 2023, Materiale Plastice 59(4): 82-94
2. M.Aradoaei, A.-M. Lucaci, R.C. Ciobanu, C. Schreiner, B.-G. Rusu, G.E Hitruc, M. Aflori, M. Paulet, A.-R. Caramitu, **A.-M. Bors***, Piezoelectric thin Film Composites with BaTiO₃ for Microelectronics, <https://doi.org/10.37358/Mat.Plast.1964>, Mater. Plast., 60 (4), December 2023, 10-30, <https://doi.org/10.37358/MP.23.4.5683>
3. A.-P. Chiriță, **A.-M. Borș**, R.-I. Rădoi, I.-C. Dumitrescu, A.-M. C. Popescu, Leveraging Additive Manufacturing and Reverse Engineering for Circular Economy-Driven Remanufacturing of Hydraulic Drive System Components, in Appl. Sci. (ISSN 2076-3417), 08 November 2023, O.A.Journal -MDPI, IF =2,7 <https://www.mdpi.com/2076-3417/13/22/12200>
4. Caramitu, A.R., Ion, I., **Bors***, **A.M.**, Ciobanu, C.R., Schreiner, C., Aradoaei, M., Caramitu, A.-M.D., Physico-chemical Characterization of Paint Films with Electromagnetic Properties, 2022, Materiale Plastice, 59 (2), pp. 9-23, ISSN: 0025-5289, DOI: 10.37358/MP.22.2.5580.
5. Obtaining and Characterizing 3D Printable Polymer Based Composites with BaTiO₃ Filler, Caramitu, A.R., Dascalu, R., Ion, I., Tsakiris, V., Stancu, N., Aradoaei, M., Ciobanu, R.C., **Bors, A.M.**, Lingvay, I. 2021, Materiale Plastice 58 (1), pp.11-18, <https://doi.org/10.37358/MP.21.1.5440>.
6. The hydrophilicity of some lacquers for electrical use, **Bors, A.-M.**, Caramitu, A.-R., Marin, D., Lingvay, I. 2020, Materiale Plastice 57 (1), pp.122.

Books

7. M. Ștefan, D.-S. Ștefan, **A.-M. Borș**, “Retention of heavy metal ions on the clays”, ISBN 978-613-9-86427-0 Editura: LAP LAMBERT Academic Publishing, SIA Omni Scriptum Publishing, 2018; <https://www.lap-publishing.com/catalog/details/store/ru/book/978-613-9-86427-0/retention-of-heavy-metal-ions-on-the-clays>
8. **Adriana Mariana Borș**, “Permeația gazelor prin membrane compozite“, CIP 2020-03640, Editura Electra, ISBN 978-606-507-114-8, 2020; <https://www.agir.ro/carte/permeatia-gazelor-prin-membrane-compozite-123800.html>
9. “Materiale multifuncționale inteligente pentru aplicații de înaltă tehnologie; editor Lucian Pintilie, 2021 Capitolul VIII. - “Materiale compozite cu conducție termică ridicată pentru aplicații în motoare electrice”, M. Burdușel, C. Comănescu, G. Dobrescu, Ghe. Aldica, M. A. Grigoroșcuță, A. Galațanu, A. Kuncser, P. Minciunescu, A. E. Dumitru, **A. M. Borș**, L. Demeter, B. Vărățiceanu, <https://projects.infim.ro/MATI2IT/docs/PINTILIE%20LUCIAN%20-%20Materiale%20multifuncționale%20inteligente...%20-%2020221.pdf>

Patent

10. Ecological emulsion for mechanical processing by chipping and obtaining method", inventors: **Borș Adriana Mariana**, Popa Ionel and Mihaly Maria, in No. OSIM A/00240/20.06.2019

C.3 Narrative CV

A narrative summarizing which work has had the greatest importance and impact.

I graduated, in 1998, from the University of Bucharest, Faculty of Chemistry, Specialization in Chemistry, as head of promotion, "day" form of education. In the period 1999-2001 I followed the Master's studies at the University of Bucharest, specializing in "Catalysis and heterogeneous catalytic processes". In the period 2002-2004 I followed the Master's study program at the Politehnica University of Bucharest, Faculty of Energy, the paper title: "Study on the implementation of European legislative provisions in the field of air quality". In the period 2004-2007, I attended doctoral university studies at the Politehnica University of Bucharest, Faculty of Applied Chemistry and Materials Science, "day" form of education, coordinator Prof. emeritus Dr. Meghea Aurelia, the paper title: Monitoring the emissions of Persistent Organic Pollutants in order to reduce the impact on the environment and I obtained the title of doctor in 2007 in the field of exact sciences, specializing in Chemistry. In 2000, I engaged at the National Research and Development Institute for Environmental Protection - INCDPM Bucharest, having the following professional development:

- Scientific researcher grade III from 2008 to 2011, scientific researcher grade II from 2011 to 2021;
- Head of the Natural and Anthropogenic Hazards Department. Global Warming, in the period 2011-2012; Head of the Natural and Technological Hazards Department during 01.06.2012 – 2015;
- Expert chemist at the Association of Environmental Experts in the field of Persistent Organic Pollutants (POPs), during 2007-2009;
- TUV Rheinland RO, "Systems Certifications" Depart., 2009-2010, as Auditor, "Environmental Management Systems" Specialist and Verifier of 14001 audits (ISO 14001, ISO 17021, ISO 19011, ISO 9001);
- ICPE SA, scientific researcher degree II, Servomotors Center, from 2018 to 2023.
- INOE 2000-IHP /Research Institute for Hydraulics and Pneumatics Subsidiary, Department of General Hydraulics, Scientific Researcher first degree, from 24.04.2023 until now.

I participated in a series of training and scientific improvement courses in the country and abroad in the field of environmental engineering, such as: RECETOX, Brno-Czech Republic – practical laboratory training;

- Ukraine, Kazan-Tatarstan-Russia - advanced phytotechnology research, practical laboratory training;
- Geneva-Switzerland, applications of strategies regarding the management of pathogenic vectors in air, water, soil environments; international research and training program on the sustainable management of mountain areas, with the theme "Natural Hazards and Disaster Risk Management in Mountains", IPROMO, Italy; exchange of experience with specialists from different countries regarding the transfer and translocation of organochlorine pesticide residues in soil and water (Bratislava-Slovakia, Suwon-Korea);
- application of engineering and environmental science concepts for sustainable development (Michigan State University-USA, Fogarty International Center);
- Auditor course "Training course and certificate of attainment is recognized by RABQSA as meeting the training requirements for certification to EMS Lead Auditor Course (TCD-20)", ISO 14001:2004;
- Expert course on accessing European structural and cohesion funds - APSAP Training Center, 2023;
- Environmental Data Management (EDM): Best Practices for Exchanging Environmental Data, Interstate Technology and Regulatory Council, 2023;
- Webex Web of Science: The Importance of Research Evaluation, 2023;
- Webex Web of Science: Supporting open research initiatives with reliable data and scalable tools, 2023;
- Webex Web of Science: Review of Research Funding, 2023.

These specializations aimed at obtaining new skills in the field of analyzing and characterizing chemical compounds such as: quality control of environmental factors, management and control of industrial pollution, mathematical modeling transport and infiltration of pollutants in environmental factors (air, water, soil), techniques for characterizing phenomena and processes that influence environmental factors, chemistry of complex combinations, chemistry of organic compounds with mixed functions, instrumental methods of analysis, electrochemistry, separation methods and chemical analysis, advanced analytical techniques for environmental protection, extraction of active principles from plants, chemiluminescence and fluorescence,

measurement uncertainty estimation in analytical chemistry laboratories, technological chemistry, chemical thermodynamics and kinetics, research and development of chemical safety alternatives and non-chemical products, etc. the scientific results obtained allowed me to hold courses as a Lecturer within the POSDRU research programs carried out in the period 2010-2013, to participate as an expert in various working groups organized by the Ministry of the Environment with other ministries at home and abroad regarding the implementation of the European norms of environment and international conventions on health and safety of the human factor and environmental protection. I contributed to the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) - the CLRTAP Protocol for the control, reduction or elimination of emissions, emissions and losses of POPs, being nominated by the UNEP program (United Nations Environment Programme) and by the Government of Romania in the group of experts on DDT for pathogen vector control, and member of the Global Alliance for Alternatives to DDT. Also, we participated in the implementation of the European Union Directives on Integrated Pollution Prevention and Control (IPPC), the Register of Pollutants Released and Transferred (EPRTR), Large Combustion Plants (LCP), Solvent Emissions Directive (VOC), Control of Accident Hazards major (SEVESO II), etc.

I was appointed by Ministerial Order no. 170/2007, expert in the group for dangerous chemical substances, to establish the organizational structure in order to update the National Action Plan for Environmental Protection. In terms of membership in research collectives, the proof is the more than 65 research contracts, 7 project director, responsible and co-responsible for 6 grants, as an expert, in more than 10 research contracts won through national competition or international and as a lecturer in two POSDRU projects. The research results were included in research reports and more than 75 articles were published in specialized journals, 40 ISI, with more than 200 citations, 2 granted patents, 34 papers supported at various communications and scientific events, 11 specialized books in the field and 1 encyclopedia in 3 volumes, 3 chapters in specialist volumes, IH= 9(WOS). The research activity focuses on the field of Environmental Chemistry - technologies for purification and treatment of environmental factors, transfer phenomena involved in environmental applications, fluid mechanics and pollutant dispersion, natural resource management, integrated monitoring of environmental factors, with expertise in physical-chemical processes, methods and means of reprocessing liquid waste resulting from mechanical chipping processes and mechanisms for determining critical loads and the level of pollutants in environmental factors, the development of chemical safety alternatives and non-chemical products, recovery and recovery of waste technologies from electric motor manufacturing flows, techniques and processes that influence environmental factors, industrial pollution control, integrated environmental monitoring programs, promoting strategies to reduce or eliminate industrial pollutants, expert in environmental management systems. Economic operators, research institutes and universities from the country and abroad were involved in these projects. I held the position of head of two departments with managerial activity - director of national and international research projects and programs, coordinator of scientific activities, development of cooperation with research groups and formation of mixed teams on environmental issues as well as scientific activity. Among the most significant technical-scientific results obtained are: development of technologies for reconditioning, recovery/disposal of industrial waste (emulsions, oils with PCB content); contributions to the development of efficient systems for determining the doses absorbed in environmental factors and implicitly the quantified risk as a result of emissions and immissions from different sources; the creation and development of laboratory experimental models for the identification and description of the dose-response relationship applied at plant and animal level; methodologies and regulations of the national programs to reduce ecosystem pollution; national action plans and technological measures regarding the concept of climate change at the national level. Thus, research activity with an emphasis on collaboration with the academic environment, industry and authorities in the field, private companies/institutions, NGOs, etc., is important in the current context of scientific and technological progress of competitiveness, objectives and complex thematic areas of research at national and international level.