



Curriculum vitae Europass

Personal information

Name **DIACU Elena**
Address University Politehnica of Bucharest, Faculty of Applied Chemistry and
Material Sciences, 1-7 Gh. Polizu, , code 011061 Bucharest
Telephone +214023888
E-mail
Nationality Romanian
Sex Feminine

Professional experience

Period 2019-present Emeritus Professor
1998-2019
Function or position Professor at Analytical Chemistry and Environmental Engineering Department, Faculty of Applied
Chemistry and Material Sciences
Main activities and responsibilities Education, research
Employer's name and address Politehnica University of Bucharest

Period 1992-1998
Function or position Associate Professor at Analytical Chemistry and Environmental Engineering Department, Faculty of
Applied Chemistry and Material Sciences
Main activities and responsibilities Education, research
Employer's name and address Politehnica University of Bucharest

Period 1990-1992
Function or position Lecturer at Analytical Chemistry and Environmental Engineering Department, Faculty of Applied
Chemistry and Material Sciences
Main activities and responsibilities Education, research
Employer's name and address Politehnica University of Bucharest

Period 1980 - 1990
Function or position Assistant professor at Analytical Chemistry and Instrumental Analysis Department, Faculty of
Chemical Technology,
Main activities and responsibilities Education, research
Polytechnic Institute of Bucharest

Period 1975-1980
Function or position Chemist analyst, Head of Toxicological department
Main activities and responsibilities Research in food control, food control by advanced analytical methods
Employer's name and address Institute for Hygiene and Veterinary Public Health, 5 Campul Mosilor, 021201, Bucharest, Romania

Education and Training

1975-1978
Period

Qualification / obtained diploma English certificate
 Main disciplines English
 Name and type of the education institution Popular University of Bucharest
 Level in national or international classification ISCED 6

Period 1981-1987

Qualification / obtained diploma Doctor in Chemistry (PhD)
 Main disciplines Analytical Chemistry, Instrumental Analysis, Advances Analytical Techniques (Spectral, voltammetric, chromatographic methods, coupled analytical methods).
 Name and type of the education institution Industrial Chemistry Faculty, Polytechnic Institute of Bucharest
 Level in national or international classification ISCED 6

Period 1970-1975

Qualification / obtained diploma Chemist, Specialization in Analytical chemistry
 Main disciplines Analytical Chemistry, Instrumental Analysis, Advances Analytical Techniques (Spectral, voltammetric, chromatographic methods, coupled analytical methods).
 Name and type of the education institution Faculty of Chemistry, University of Bucharest
 Level in national or international classification ISCED 5

Period 2008

Qualification / obtained diploma Auditor / Certificate in Quality Systems Audit of labs
 Main disciplines Standard ISO / IEC 17025: 1999 for the accreditation of testing laboratories / validation of analytical methods; quality management in laboratories
 Name and type of the education institution Romania ASRO Standards Association / Institution State
 Period 2007-2008

Qualification / obtained diploma Internal Auditor / Certificate in Higher Education Quality Management System
 Main disciplines Higher Education Quality Management in accordance with ISO 9001/2001; definitions; concepts; referential. Documents of Quality Management System in Higher Education
 Name and type of the education institution Romania ASRO Standards Association / Institution State

Known foreign languages **English, French, Russian**

Autoevaluation
 European level (*)

English

French

Russian

Understanding				Speaking				Writing	
Listening		Reading		Participation at conversations		Oral speech		Written expression	
C2	Skilled user	C2	Skilled user	C2	Skilled user	C2	Skilled user	C2	Skilled user
C2	Skilled user	C2	Skilled user	C2	Skilled user	C2	Skilled user	C2	Skilled user
B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user

(*) Reference Common European Framework Level for Foreign Languages

Organisatoric competencies and aptitudes

- 1976 -1980 head of toxicological laboratory –heavy metals;
- 1984 -1987, head of student laboratories in Analytical Chemistry, Instrumental Analysis;
- 2007 - member of the organizing committee of international conference RICCCE XV, Sinaia;
- 2008 - member of the organizing committee of the National Conference of Chemistry "School education. Present and future ", Bucharest;
- 2010 - Co-chairman, symposium "Nouveaux Matériaux pour la reconnaissance des Mineraux Electrochimique des Espèces et Biologique", "Nomares", Bucharest;
- 2012 - Co-chairman of the 3rd Symposium on Electrochemistry REGIONAL: SOUTH-EAST EUROPE, RSE-SEE3, Bucharest;
- 2012 - Co-Chairman, Symposium "Nouveaux Matériaux pour la reconnaissance des Mineraux Electrochimique des Espèces et Biologique", "Nomares» Bucharest;
- 2014 - member of the organizing committee 4rd REGIONAL SYMPOSIUM ON SOUTH-EAST EUROPE Electrochemistry, RSE-SEE4-Ljubljana;
- 2014 - Co-chairman, symposium "Nouveaux Matériaux pour la reconnaissance des Mineraux Electrochimique des Espèces et Biologique", "Nomares", Caciulata, Valcea;
- 2016 - Co-Chairman, Symposium "Nouveaux Matériaux pour la reconnaissance des Mineraux Electrochimique des Espèces et Biologique", "Nomares» Iasi;
- Project Director of 17 contracts as respondent;

Competencies and technical aptitudes

- Courses and laboratory works in analytical chemistry and instrumental analysis, environmental quality control, food safety and quality control- in Romanian and English languages;
- Oral and poster presentation in national and international scientific congresses, conferences, symposia, workshops;
- Scientific coordination of student research in Scientific Circle of Analytical Chemistry and of Applied Chemistry, license and master level;
- Scientific coordinating of PhD students from 2004 to present, 10 doctoral theses completed;
- Scientific reviewer, member of committees for the evaluation of doctoral thesis in chemistry and chemical engineering.
- Member of editorial board of *Revista de Chimie* (Bucharest)
- Scientific reviewer for national and international journals in chemistry, ISI indexed (Food Analytical Methods, *Revista de chimie*, *Revue Roumaine de Chimie*, *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, *Supramolecular Chemistry*, *International Journal of Environmental Analytical Chemistry*, *Buletinul Științific al UPB-Seria B*, *Proceedings of the Romanian Academy*);
- Expert evaluator for national programs "Horizon 2000", "Relansin" "Matnantech" CEEX., Partnerships, PED
- Expert evaluator for international programs, NEST Adventure, FP6, FP7 Marie Curie Actions, BNSF, EURAMET.
- Chairman or member of the Examination Committee of Experts in Food Control from the Institute for Hygiene and Veterinary Public Health, Bucharest;
- Chairman of National Olympiad Junior Sciences in 2007, 2008, 2009, 2010.

Research domains:

- analytical chemistry, spectral, electrochemical and chromatographic methods applied in environmental protection (water and soil analysis), in food control, electrochemical chemistry and catalytic mechanism process, flow injection analysis (FIA), speciation of heavy metals in environmental samples, environmental chemistry and monitoring, supramolecular chemistry (recognition of biological substrates) and separation through liquid membrane, chemically modified electrodes applied in water quality monitoring, molecular recognition (cations and anions) in solutions and using modified electrodes

Computer usage competencies and aptitudes

PC usage, Word, Excell, Power Point

Published books (selected):

1. Elena Diacu, "Analytical Chemistry-Fundamentals", Editura Printech ISBN 973-652-722-0 (2003).
2. Elena Diacu și L. Mutihac, "*Analytical Applications of Macrocyclic receptors*", Ed. Printech, ISBN 973-718-450-4, 2006.
3. D. Bogdan și Elena Diacu, "*Problems in Chemistry*" ,Ed. Mistral INFO MEDIA, ISBN 978-973-88418-5-7, 2007.
4. A. D. Stancu, M. M. Ceausescu, L. Kim, Elena Diacu, L. Mutihac, "*Cyclodextrins Involved in Separation of Amino Acids by Liquid Membranes*", European Membrane Society Summer School, Bucharest, 2010, Vol. Trends in membranology, Ed. Printec, 77-80, ISBN 978-606-521-525-2.
5. Elena Diacu, "*Encyclopedia of Food and Health (FOHE)*", vol. 2; Oxford: Academic Press 2016, "Colors: Properties and Determination of Synthetic Pigments".

Driving Licence B Category

Additional informations Member of professional associations: Romanian Chemical Society, Societatea Națională de Știința și Ingineria Mediului din România
Nominated at "Who is who in the world" and "Who is who in Romania";
Awards: Best Poster Award: Conferința Internațională Chimia 2009, "New Trends in Applied Chemistry", Constanta 2009
- Diploma of Honour for Contribution to promoting chemistry in SChR 2015
- Gheorghe Spacu medal of the Society of Chemistry from Romania in 2015 for the activity in chemistry.

Appendices

Appendix I – Papers list for the last 10 years

Published papers in ISI indexed journals

1. L. Kim, A-D. Stancu, Elena Diacu, H-Jürgen Buschmann, L. Mutihac, "Extraction and transport behaviour of aromatic amino acids by modified cyclodextrin", *Supramolecular Chemistry*, 21, 1-2, 131-134, 2009.
2. Elena Diacu, Cornelia Petronela Ene, "Simultaneous determination of Tartrazine and Sunset Yellow in Soft Drinks by Liquid Chromatography", *Revista de Chimie*, 60, 8, 745-749, 2009.
3. G. O. Buica, I. Maior, E.M. Ungureanu, D. I. Vaireanu, Elena Diacu, C. Bucher, E. Saint-Aman, "Electrochemical Impedance Characterization of poly (pyrole-EDTA like) Modified Electrodes", *Revista de Chimie*, 60, 11, 1205-1209, 2009.
4. Florentina Dumitrache, Elena Diacu, "Study on the Seasonal Variation of Nitrogen Nutrients Content from Ialomita River Hydrographic Basin", *Revista de Chimie*, 61, 3, 328-332, 2010.
5. Elena Diacu, C.P. Ene, "Study of Analytical Parameters of the HPLC Method for Tartrazine and Sunset Yellow Analysis in Soft Drinks", *Revista de Chimie*, 61, 12, 1177-1182, 2010.
6. Elena Diacu, L. Mutihac, E. Ruse, M.M. Ceausescu, "Solvent extraction of dopamine by heptakis (2,3,6-tri-O-acetyl)-bicyclodextrin", *J. Incl. Phenom. Macrocycl. Chem.*, 71, 3-4, 339-342, 2011.
7. Elena Diacu, E.-M.Ungureanu, C.P.Ene, A.A.Ivanov, "Voltammetric Studies for Detection and Degradation Assessment of some Synthetic Food Dyestuffs. I. Tartrazine - E 102", *Revista de Chimie*, (Bucharest), 62, 11, 1085-1089, 2011.
8. Elena Diacu, E.-M.Ungureanu, M.M.Jurcovan, C.P.Ene, A.A.Ivanov "Voltammetric Studies for Detection and Degradation Assessment of some Synthetic Food Dyestuffs. II. Sunset Yellow - E-110", *Revista de Chimie* (Bucharest), 63, 6, p. 580-583, 2012.
9. Elena Barsan, Elena Diacu, "Copper Speciation Assessment in Aquatic Ecosystem Affected by Historical Mining Activities", *Revista de Chimie* (Bucharest), 63, 8, 759-763, 2012.
10. Bumbac Costel, Elena Diacu, "Coupled Chemical and Biological Treatment of Oil Contaminated Soils", *Revista de Chimie* (Bucharest), 63, 11, p.1167-1171, 2012.
11. Petronela-Bianca Pavel, Elena Diacu, Constantin Horia Barbu, "Microwave-Assisted Digestion Procedures for Total Lead and Cadmium Content Determination in Copsa Mică Soils", *Revista de Chimie* (Bucharest), 64, 1, pp.22-26, 2013.
12. V.-M. Radu, Elena Diacu, A. Varduca, "Development of Procedures for Hydrochemical Monitoring Data Integration for the Danube River related to the Hydrological Conditions "Dezvoltarea Procedurilor de Integrare a Datelor de Monitorizare Hidraulică cu cele Legate de Condițiile Hidrologice pentru Fluviul Dunarea", *Revista de Chimie*, (Bucharest), 64, 3, pp.242-245, 2013.
13. Mara Nicoleta BADEA, Elena DIACU, Monica Violeta RADU, "Influence of Antibiotics on Copper Uptake by Plants", *Revista de Chimie*, (Bucharest), 64, 7, pp.684-687, 2013.
14. Radu, V. M.; Ionescu, P.; Deak, G. Y., Ivanov, AA.; Elena Diacu, "Multivariate Statistical Analysis for Quality Assessment of Aquatic Ecosystem on the Lower Danube", *JOURNAL OF ENVIRONMENTAL PROTECTION AND ECOLOGY* 15, 2, pp.412-424, 2014.
15. Pavel, Petronela-Bianca, Puschenreiter, Markus, Wenzel, Walter W., Elena Diacu, C.H. Barbu, "Aided phytostabilization using *Miscanthus sinensis x giganteus* on heavy metal-contaminated soils, , *SCIENCE OF THE TOTAL ENVIRONMENT*, 479 ,125-131, 1, 2014.
16. Maria Madalina Jurcovan, Elena Diacu, "Development of a Reversed-Phase High Performance Liquid Chromatographic Method for Simultaneous Determination of Allura Red AC and Ponceau 4R in Soft Drinks", *Revista de Chimie* (Bucharest), 65, 2, pp.137-141, 2014.
17. P.-B. Pavel, Elena Diacu, C.H. Barbu, "Long-term effects on the Fractionation and Mobility of Heavy Metals in a Polluted Soil Treated with Bauxite Residue", *Revista de Chimie*, (Bucharest), 66, 1, pp. 13-16, 2014.

18. Tociu, Carmen; Diacu, Elena; Maria, Cristina, "Minimization of Chemical Risk by using Recovered Aluminium from Metallurgical Slag as Coagulant in Wastewater Treatment", *ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL*, 13, 2, 429-434, 2014.
19. L. Mutihac, I. V. Enache, Elena Diacu, R.-C. Mutihac, J. Vicens, "Anion influence on extraction and transport of amino acid methyl esters by functionalised calix[4]arene", *Supramolecular Chemistry* 26, 7-8, pp. 521-525, 2014.
20. Ionescu, Petra, Radu, Violeta-Monica, Gyorgy Deak, Elena Diacu "Distribution, Partition and Fluxes of Trace Heavy Metals in the Lower Danube River", *REVISTA DE CHIMIE* 65, 9, pp: 1092-1095, 2014.
21. Petronela-Bianca Pavel, Elena; Diacu, Constantin Horia Barbu, "Long-term Effects on the Fractionation and Mobility of Heavy Metals in a Polluted Soil Treated with Bauxite Residues", *REVISTA DE CHIMIE* 66, 1, pp: 13-16, 2015.
22. Holban, Elena, Deak, Gyorgy; Daescu, Vasilica; Diacu Elena; Daescu, Andreea I; Tanase, GS; Marinescu, P; Sirbu, C; Paceagiu, J , "Ways to Reduce CO₂ Emissions and Energetic Consumption at Clinker Producing under Romanian Specific Conditions", *JOURNAL OF ENVIRONMENTAL PROTECTION AND ECOLOGY*, 16, 2, pp. 479-488, 2015.
23. Claudia Maria Gutu, Octavian Tudorel Olaru, Carmen Nicoleta Purdel , Mihaela Ilie, Elena Diacu, "Phytotoxicity of Inorganic Arsenic Assessed by Triticum Test", *REVISTA DE CHIMIE* 66, 3, pp: 333-336, 2015.
24. Violeta-Monica Radu, Elena Diacu, Petra Ionescu, Deak György, "Spatio-Temporal Characterization of Nutrient Pollution in Lower Danube Area", *REVISTA DE CHIMIE* 66, 5, pp: 601-606, 2015.
25. Elena Diacu, Eleonora-Mihaela Ungureanu, Anton Alexandru Ivanov, Maria Madalina Jurcovan, "Voltammetric Techniques for Determination of Allura Red AC Synthetic Pigment in Beverages", *REVISTA DE CHIMIE* 66, 6, pp: 769-773, 2015.
26. Petra Ionescu, Violeta-Monica Radu, D.Gyorgy, A.A.Ivanov, Elena Diacu, "Lower Danube Water Quality Assessment using Heavy Metals Indexes", *REVISTA DE CHIMIE* 66, 8, pp.1088-1093, 2015.
27. Ana-Maria Resetar-Deac, Elena Diacu, "Assessment of Aquatic Environment Contamination with Heavy Metals from Abandoned Mines of Northwestern Romania", *REVISTA DE CHIMIE*, 66, 9, pp.1535-1539, 2015.
28. Petra Ionescu, Violeta-Monica Radu, Elena Diacu, "Sediments as Indicators of Heavy Metal Contamination in the Lower Danube River", *REVISTA DE CHIMIE*, 66, 11, pp.1725-1727, 2015.
29. Violeta Monica Radu, Alexandru Anton Ivanov, Petra Ionescu, Deak Gyorgy, Elena Diacu, "Overall Assessment of Water Quality on Lower Danube River Using Multi-parametric Quality Index", *Revista de Chimie*, 67, 3, pp.391-395, 2016.
30. Alexandru Anton Ivanov, Elena Diacu, Gyorgy Deak, "FTIR Method for PRAESTOL™ A3040L Analysis in Surface Waters", *Revista de Chimie*, 67, 7, pp. 1029-1033, 2016.
31. Petra Ionescu, Elena Diacu, Violeta Monica Radu, Gyorgy Deak, Marian Tudor, "Detection of Estrogens from Aquatic Environments by Gas Chromatographic Method", *Revista de Chimie*, 67, 10, 1895-1898, 2016.
32. Elena Diacu, George-Octavian Buica, Irinela Chilibon, Liviu Birzan, Georgiana-Luiza Arnold, Eleonora-Mihaela Ungureanu," Chemically Modified Electrodes Based on 5-(Azulen-1-yl)methylene-2-thioxothiazolidin-4-one", *JOURNAL OF SOLUTION CHEMISTRY*, 45, 11, 1588-1597, 2016.
33. Ana Maria Anghel, Elena Diacu, Mihaela Ilie, " Statistical Analysis of Heavy Metals Concentration in Water and Sediments in the Lower Part of the Danube River - Romanian Section", *REVISTA DE CHIMIE*, 67, 11, 2151-2155, 2016.
34. Petra Ionescu, Gyorgy Deak, Elena Diacu, Violeta Monica Radu, "Assessment of Heavy Metals Levels in Water, Sediments and Fish from Plumbuita Lake, Romania", *REVISTA DE CHIMIE*, 67,11, 2148-2150, 2016.
35. Lazar Ioana-Georgiana; Elena Diacu; Ungureanu, Eleonora-Mihaela; Buica, George-Octavian; Birzan, Liviu; Arnold, Georgiana-Luiza, "MODIFIED ELECTRODES BASED ON 2,6-BIS((E)-2-(THIOPHEN-2-YL) VINYL)-4-(4,6,8-TRIMETHYLAZULEN-1-YL) PYRIDINE FOR HEAVY METALS SENSING", *UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN SERIES B-CHEMISTRY AND MATERIALS SCIENCE*, 79, 3, 23-36, 2017.
36. Radu Violeta-Monica; Elena DIACU; Ionescu, Petra; Ivanov, Alexandru Anton, "APPLICATION OF MULTIVARIATE STATISTICAL TECHNIQUES TO ASSESS WATER QUALITY OF THE LOWER DANUBE", *UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN SERIES B-CHEMISTRY AND MATERIALS SCIENCE*, 79, 3, 3-12, 2017.
37. Holban E.; Elena DIACU; Matei, M.; Ghita, G.; Raischi, M.; Fronescu, S.; Daescu, A.; Gheorghe, I. P.; Ilie, M.; Szep, R.; Daescu, V.; Dumitru, D. ;Tociu, C.; Popescu, I., "IASSESSMENT OF ATMOSPHERIC POLLUTION IN A CEMENT FACTORY AREA SITUATED IN THE EASTERN PART OF ROMANIA", *JOURNAL OF ENVIRONMENTAL PROTECTION AND ECOLOGY*, 18, 3, 819-830, 2017.
38. Anghel Ana-Maria; Elena DIACU, Ilie, Mihaela; Cimpoeru, Cristina; Marinescu, Florica; Marcu, Ecaterina; Tociu, Carmen, "Statistical correlations between physical and chemical indicators in order to assess the water quality of artificial lakes in south Romania, Bucharest-Ifov area", *BIOINTERFACE RESEARCH IN APPLIED CHEMISTRY*, 7, 3, 2048-2052, 2017.
39. Lazar Ioana Georgiana; Elena DIACU; Buica, George Octavian; Ungureanu, Eleonora-Mihaela; Arnold, Georgiana Luiza); Birzan, Birzan, Liviu, "The Heavy Metals Sensing Based on 2,6-Bis(-2-(Thiophen-3-yl)Vinyl)-4-(4,6,8-Trimethylazulen-1-yl) Pyrylium Modified Electrodes", *REVISTA DE CHIMIE*, 68, 11, 2509-2513, 2017.
40. Marcu, Ecaterina; Deak, Gyorgy; Ciobotaru, Irina Elena; Ciobotaru; Ivanov, Ivanov, Alexandru Anton; Ionescu, Petra; Tociu, Carmen; Elena DIACU, "The Assessment of Content and Dynamics of Nutrients in Water and Sediments from the Plumbuita Lake, Bucharest I. Study on Phosphorous Content and Distribution", *REVISTA DE CHIMIE*, 68, 11, 2492-2494, 2017.

41. Radu Violeta Monica; Elena DIACU; Moncea, Mihaela Andreea; Dumitru, Florina Diana; Panait, Ana Maria; Ionescu, Petra, "Numerical Modelling of Pollutant Dispersion in the Lower Danube River", REVISTA DE CHIMIE, 68, 11, 2477-2481, 2017.

42. Tociu Carmen, Zaharia, Tania; Elena DIACU, Marinescu, Florica; Ilie, Mihaela, "Technological Solution for the Treatment of Wastewater Resulting from Autochthonous Aquacultures in Order to Protect the Marine Water Quality", REVISTA DE CHIMIE, 68,12,, 2752-2755, 2017.

43. Marcu, Ecaterina; Deak, Gyorgy; Ciobotaru, Irina Elena; Ivanov Alexandru Anton; Ionescu, Petra; Tociu, Carmen; Elena DIACU, "The Assessment of Content and Dynamics of Nutrients in Water and Sediments from the Plumbuita Lake, Bucharest II. Study on nitrogen content and distribution", REVISTA DE CHIMIE, 68, 12, 2744-2746, 2017.

44. Radu Violeta Monica; Ionescu Petra; Elena DIACU; Ivanov, Alexandru Anton, "Removal of Heavy Metals from Aquatic Environments Using Water Hyacinth and Water Lettuce", REVISTA DE CHIMIE, 68, 12, 2765-2767, 2017.

45. Vasile Gabriela Geanina, Arnold Georgiana Luiza, Buica George Octavian, Elena DIACU, Ungureanu Eleonora Mihaela, Dinu Cristina, *Stripping Voltammetry on a new Modified Glassy Carbon Electrode for Lead Content Determination in Soft Water*, Revista de chimie, 69, 1, pp.21-26, 2018.

46. Stefanu Amalia, Pop Maria-Daniela, Arnold Georgiana-Luiza, Birzan Liviu, Pintilie Lucia, Elena DIACU, Ungureanu, Eleonora-Mihaela, "DFT calculations and electrochemical studies on azulene ligands for heavy metal ions detection using chemically modified electrodes", JOURNAL OF ELECTROCHEMICAL SCIENCE AND ENGINEERING, 8,73-85, 2018.

47. Lazar Ioana Georgiana, Elena DIACU, Vasile, Gabriela Geanina, Ungureanu Eleonora Mihaela, Ivanov Alexandru Anton, *Study of Analytical Parameters of a Differential Pulse Voltammetric Method using Chemically Modified Electrodes for Lead Analysis in Water*, Revista de chimie, 69, 9, pp.2311-2314, 2018.

48. Stefanu Amalia, M.-D. Pop, Arnold Georgiana Luiza, Liviu Birzan, L. Pintilie, Elena Diacu, Eleonora-Mihaela Ungureanu, *DFT calculations and electrochemical studies on azulene ligands for heavy metal ions detection using chemically modified electrodes*, Journal of Electrochemical Science and Engineering, Volumul 8, Numărul 1, pp 73-85, Editor Međunarodna udruga fizikalnih emičara, 2018/3/3

49. Radu Violeta Monica , Ivanov Alexandru Anton, Ionescu Petra, Deak, Gyorgy, Elena DIACU, Ciobotaru, Irina-Elena, Ghita, Gina, Marcu, Ecaterina, *Multivariate Statistical Characterisation of Soil Quality in the Lower Danube River Riparian Areas*, REVISTA DE CHIMIE, 70, 7, 2392-2397, 2019.

50. Elena Diacu, Adinuta Paun, Veronica Anastasoae, Georgiana.-Luiza Arnold-Tatu, Liviu Birzan, Eleonora-Mihaela Ungureanu, *Electroactive properties of a new azulene thioxo-imidazolidin-4-one ligand for modified electrodes*, J. Electrochem. Sci. Eng. 10(2)) 209-217, 2020.

51. Ioana Georgiana Bugean, Adinuta Paun, Iena. Diacu, Mihaela Cristea, Liviu Birzan, Eleonora-Mihaela Ungureanu, *Chemically modified electrodes based on 4-(azulen-1-yl)-2,6-bis ((E)-2-(thiophen-2-yl)vinyl) pyrylium perchlorate*, Revista de Chimie, 71(9), 113-124, 2020.

52. Adina-Maria Paun, O.-T. Matica, Veronica Anastasoae, Laura.-Bianca Enache, Elena Diacu, Eleonora-Mihaela Ungureanu *Recognition of Heavy Metal Ions by Using E-5-((5-Isopropyl-3,8-Dimethylazulen-1-yl) Dyazeny)-1H-Tetrazole Modified Electrode*, Symmetry 13, 644. <https://doi.org/10.3390/sym13040644>, 2021.

53. Veronica Anastasoae, Elena Diacu, Eleonora-Mihaela Ungureanu, Magdalena-Rodica Bujduveanu, Liviu Birzan, Mihaela Cristea, *New chemically modified electrodes based on crown ether-azulenes for heavy metal analysis*, U.P.B. Sci. Bull., Series B, 83, . 2, 2021.

Published papers in International Base Data (BDI) Journals

1. Elena Diacu, C. P. Ene, "A Rapid HPLC Method for the Analysis of Water Soluble Synthetic Pigments in Soft Drinks", Ann. Chem., Ovidius Univ., 20, 2, pp.189-192, ISSN-1223-7221, 2009.

2. C.P. Ene, Elena Diacu, "High Performance Liquid Chromatographic Method for the Determination of Benzoic Acid in Beverages", U.P.B. SCI. BULL., SERIES B, 71, 4, 81-88, ISSN 1454-2331, 2009.

3. Elena DIACU, Bianca Petronela PAVEL, Alexandru Anton IVANOV, Daniela BOGDAN, "Heavy Metal Content Analysis in Salvia Officinalis Plants by Graphite Furnance Atomic Absorption Spectrometry", U.P.B. SCI. BULL., SERIES B, 73, 3, pp.155-160, 2011.

4. M.M. Jurcovan, Elena Diacu, Cornelia Petronela Ene, "Quantification of the analytical parameters and uncertainty budget for traceable measurements of benzoic acid in soft drinks by HPLC method", U.P.B. SCI. BULL., SERIES B, 74, 1, 97-108, 2012.

5. Petra Ionescu, Elena Diacu, Violeta-Monica Radu, "Evaluation of measurement uncertainty to phosphorus determination by molecular spectrometry in water samples", U.P.B. SCI. BULL., SERIES B, 76, 2, 23-32, 2014.

6. Violeta-Monica Radu, Elena Diacu, Petra Ionescu, "Characterization of the eutrophication potential for the lower part of the Danube River", U.P.B. SCI. BULL., SERIES B, 76, 4, 138-146, 2014.

7. Elena Holban, Elena Diacu, Vasilica Dăescu "Soil quality variation in a cement plant in Romania", U.P.B. SCI. BULL., SERIES B, 77, 2, pp. 73-80, 2015.

8. Carmen Tociu, Elena Diacu, "Quality assessment of the aluminium sulphate coagulant recovered from metallurgical slag based on a correlation of the removed phosphorous from municipal Wastewaters", U.P.B. SCI. BULL., SERIES B, 77, 2, pp. 30-40, 2015.

9. Ana-Maria Reșetar-Deac, Elena Diacu, "Influence of climate change on aquatic ecosystem contaminated with toxic substances originating from historical mining activities", U.P.B. SCI. BULL., SERIES B, 77, 3, pp. 60-72, 2015.

10. Petra IONESCU , Elena DIACU, Ecaterina MARCU, Violeta - M. RADU, Carmen TOCIU, Andreea MONCEA, "POTENTIAL RISK ASSESSMENT OF HEAVY METALS IN ,SEDIMENTS FROM SOME BUCHAREST LAKES, Bulletin of Romanian Chemical Engineering Society, Vol 4, No 1, 40-48, 2017.ISSN 2360-4697.

11. Violeta -M. RADU1, Alexandru A. IVANOV, Petra IONESCU, Elena DIACU, Iustina POPESCU, Carmen TOCIU, "STATISTICAL ANALYSIS OF HEAVY METALS IN LOWER DANUBE SEDIMENTS", Bulletin of Romanian Chemical Engineering Society, Vol 4, No 1, 49-57, 2017, ISSN 2360-4697.