

Curriculum Vitae



Personal information

First name / Surname **Doina Humelnicu**
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Nationality Romanian
Date of birth [REDACTED]
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[Brainmap](#): U-1700-034H-4058

Scopus Author ID: 6506460316

Work experience

Dates	2016-
Occupation or position held	professor
Main activities and responsibilities	teaching and research activities
Name and address of employer	Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, 11 Bd. Carol I, 700506, Iasi, Romania
Type of business or sector	higher education
Dates	2004-2016
Occupation or position held	associate professor
Main activities and responsibilities	teaching and research activities
Name and address of employer	Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, 11 Bd. Carol I, 700506, Iasi, Romania
Type of business or sector	higher education
Dates	1997-2004
Occupation or position held	lecturer
Main activities and responsibilities	teaching and research activities
Name and address of employer	Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, 11 Bd. Carol I, 700506, Iasi, Romania
Type of business or sector	higher education
Dates	1994-1997
Occupation or position held	assistant profesor

Main activities and responsibilities teaching and research activities
 Name and address of employer Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, 11 Bd. Carol I, 700506, Iasi, Romania
 Type of business or sector higher education
 Dates 1991-1994
 Occupation or position held preparator

Main activities and responsibilities teaching and research activities
 Name and address of employer Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, 11 Bd. Carol I, 700506, Iasi, Romania
 Type of business or sector higher education

Education and training

Dates 1995
 Title of qualification awarded -
 Research topics International Workshop / Symposium on Modern Nuclear Magnetic Resonance
 Name and type of organisation providing education and training Romanian Cultural Foundation and Romanian Academy
 Dates 2006
 Title of qualification awarded Summer School «Physics and chemistry of the atmosphere: from laboratory experiments to field campaigns»
 Name and type of organisation providing education and training "Al. I. Cuza" University of Iasi, Romania; ARCUS Program French Ministry of Foreign Affairs Nord/Pas-de-Calais Region, France; "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania; Regional Agency for the Environmental Protection, Iasi, Romania
 Dates 2000
 Title of qualification awarded PhD in Chemistry
 Principal subjects/occupational skills covered Study of CRUD products that results in the technology for the obtaining the uranium pure nuclear
 Name and type of organisation providing education and training "Alexandru Ioan Cuza" University of Iasi, 11 Bd. Carol I, 700506, Iasi, Romania
 Dates 1986-1991
 Title of qualification awarded BSc.
 Principal subjects/occupational skills covered Inorganic Chemistry
 Name and type of organisation providing education and training "Alexandru Ioan Cuza" University of Iasi, 11 Bd. Carol I, 700506, Iasi, Romania

Personal skills and competences

Mother tongue Romanian

Self-assessment
 European level (*)

English

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent user	B2	Independent user	B2	Independent user	B1	Independent user	B1	Independent user
A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

(*) Common European Framework of Reference for Languages

Professional skills and competences

Organisational skills and competences	<ul style="list-style-type: none"> - Editor in Chiefs – Trends in Molecular Science - Academic Editor Journal of Chemistry - Guest editor Coatings journal in 2021 - regional editor Research Journal of Environmental Toxicology - member in Editorial Board of Journal of Chemistry, International Journal of Environmental Chemistry, International Journal of Nuclear Energy Science and Engineering, Journal of Energy and Environmental Research and Technology, Journal of Applied Science, - reviewer at Journal of Hazardous Materials, Chemical Engineering Journal, Journal of Fluorescence, Annals of Nuclear Energy, Water Research, Central European Journal of Chemistry, Journal of Environmental Radioactivity, Cellulose Chemistry, American Journal of Applied Chemistry, Polymer Bulletin, African Journal of Microbiology Research, Desalination and Water Treatment, Journal of Environmental Management, Open Chemistry, Green Chemistry – Letters and Review, Journal of Radioanalytical and Nuclear Chemistry, Separation and Purification Technology, Journal of Environmental Chemical Engineering, Molecules, Reactive and Functional Polymers, Nanomaterials, Journal of Alloys and Compounds, Chemosphere, Environmental Science and Pollution Research, Toxics, Water, Chemical Engineering, - member in the research teams of about 30 national research grants - more than 70 scientific article published
Scientific research activity	<ul style="list-style-type: none"> - removal of some radioisotopes from residual waters by biosorption using algae and hydrophyte plants, - removal of heavy metal ions from wastewaters using different types of inorganic material (zeolites, clays and pillared clays, cellulose, modified cellulose, polymers) - synthesis and characterization of some classes of coordinative compounds of transitional metals - 1421 ISI citations (exclude self citations), H-index = 20 - 3 national patent
Additional information	<p>Member of</p> <ul style="list-style-type: none"> Member of the Romanian Society of Chemistry Member of American Nano Society

List of relevant published papers

1. **D. Humelnicu**, M. Ignat, M. Sucheana, Evaluation of adsorption capacity of montmorillonite-K10 and Al-pillared clay towards Pb²⁺, Cu²⁺ and Zn²⁺ ions, *Acta Chim. Slov.*, 62, 2015: 947-957,
2. C. Blegescu, D. Ganju, S. Shova, **D. Humelnicu**, Immobilised Co(II) homodinuclear coordinative compound with terephthalate bridge and o-phenanthroline for catalytic applications, *Croat. Chem. Acta*, **90(1)**, 2017: 59-66,
3. E.S. Dragan, **D. Humelnicu**, M.V. Dinu, O.I. Olariu, Kinetics, equilibrium modeling, and thermodynamics on removal of Cr(VI) ions from aqueous solution using novel composites with strong base anion exchanger microspheres embedded into chitosan/poly(vinyl amine)cryogels, *Chem. Eng. J.*, **330**, 2017: 675-691
4. E. S. Dragan, **D. Humelnicu**, M. V. Dinu, Design of porous strong base anion exchangers bearing N,N-dialkyl 2-hydroxyethyl ammonium groups with enhanced retention of Cr(VI) ions from aqueous solution, *React. Funct. Polym.*, **124**, 2018: 55–63
5. E. S. Dragan, **D. Humelnicu**, M. V. Dinu, Development of chitosan-poly(ethyleneimine) based double network cryogels and their application as superadsorbents for phosphate, *Carbohydrate Polym.*, **210**, 2019: 17-25
6. **D. Humelnicu**, L.Soroaga, C. Arsene, I.Humelnicu, R.I. Olariu, Adsorptive performance of soy bran and mustard husk towards arsenic (V) ions from synthetic aqueous solutions, *Acta Chim Slov.* **66**, 2019: 326-336
7. **D. Humelnicu**, M.V. Dinu, M. Ignat, M. M. Lazar, E. S. Dragan, I. A. Dinu, Removal of heavy metal ions from multi-component aqueous solutions by low-cost and eco-friendly composite sorbents with anisotropic pores, *J Hazard Mater.*, **381**, 2020: 120980.
8. M. Shammas, I. Zinicovscaia, **D. Humelnicu**, L. Cepoi, V. Nirwan, Š. Demčák, A.Fahmi, Bioinspired electrospun hybrid nanofibers based on biomass templated within polymeric matrix for metal removal from wastewater, *Polym. Bull.*, **77(6)**, 2020: 3207–3222.
9. E.S. Dragan, **D. Humelnicu**, Contribution of Cross-linker and Silica Morphology on Cr(VI) Sorption Performances of Organic Anion Exchangers Embedded into Silica Pores, *Molecules*, **25(5)**, 2020: 1249,

10. **D. Humelnicu**, A. Pui, Corina Malutan, Th. Malutan, I. Humelnicu, Synthesis, characterization and theoretical investigations of new uranium (VI) and thorium (IV) complexes with 1-furfurylaldehyde-derived Schiff bases as ligands, *J. Saudi Chem. Soc.*, **24(6)**, 2020:451-460,
11. D. Humelnicu, E.S. Dragan, M. Ignat, M.V. Dinu, A Comparative Study on Cu²⁺, Zn²⁺, Ni²⁺, Fe³⁺, and Cr³⁺ Metal Ions Removal from Industrial Wastewaters by Chitosan-Based Composite Cryogels *Molecules*, **25(11)**, 2020: 2664,
12. E.S. Dragan, **D. Humelnicu**, M. Ignat, C.D. Varganici, Highly efficient composite sorbents composed of poly(amidoxime) resins synthesized into porous silica microspheres by the homo-IPN strategy for the removal of Sr²⁺ and Cs⁺, *ACS Applied Materials & Interfaces*, **12(40)**, 2020: 44622-44638
13. I. Zinicovscaia, N. Yushin, D. Grozdov, I. Humelnicu, **D. Humelnicu**, T. Mitina, Removal of chromium (III) ions from aqueous solutions using different type of hydroxyapatites: adsorption isotherm, kinetics and thermodynamic studies, *Des. Water Treat.* **204**, 2020: 297-305,
14. **D. Humelnicu**, E.S. Dragan, Highly efficient removal of phosphate by porous strong base anion exchangers as a function of functional groups, *Environ. Sci. Pollut. Res.*, **28(6)**, 2021: 7105-7115
15. C. Mita, I. Bunea, T. Roman, **D. Humelnicu**, Cross-linked and functionalized acrylic polymers: Efficient and reusable sorbents for the sequestration of Zn(II) ions from synthetic wastewaters, *J. Polym. Environment*, **29(7)**, 2021: 2261-2281
16. M.V. Dinu, **D. Humelnicu**, M. M. Lazar, Analysis of copper(II), cobalt(II) and iron(III) sorption in binary and ternary systems by chitosan-based composite sponges obtained by ice-segregation approach, *Gels*, **7(3)**, 2021: 103
17. I. Zinicovscaia, N. Yushin, D. Abdusamadzoda, D. Grozdov, I. Humelnicu, M. Ignat, **D. Humelnicu**, Removal of vanadium ions from aqueous solutions using different type of hydroxyapatites: adsorption isotherm, kinetics and thermodynamic studies, *Environm. Eng. Manage. J.*, **20(6)**, 2021: 871-881
18. E.S. Dragan, **D. Humelnicu**, M.V. Dinu, Designing smart triple-network cationic cryogels with outstanding efficiency and selectivity for deep cleaning of phosphate, *Chem. Eng. J.*, **426**, 2021: 131411
19. **D. Humelnicu**, I. Zinicovscaia, I. Humelnicu, M. Ignat, Experimental studies on the removal of aluminium ions from synthetic aqueous solution by hydroxyapatites, *Acta Chim Slov.*, **68(4)**, 2021: 821-832
20. I. Zinicovscaia, N. Yushin, **D. Humelnicu**, D. Grozdov, M. Ignat, S. Demcak, I. Humelnicu, Sorption of Ce(III) by silica SBA-15 and titanosilicate ETS-10 from aqueous solution, *Water*, **13**, 2021: 3263
21. **D. Humelnicu**, I. Zinicovscaia, I. Humelnicu, M. Ignat, N. Yushin, D. Grozdov, Study on the SBA-15 silica and ETS-10 titanosilicate as efficient adsorbents for Cu(II) removal from aqueous solution, *Water*, **14(6)**, 2022: 857,
22. M.V. Dinu, I. Humelnicu, C.A. Gheorghita, **D. Humelnicu**, Aminopolycarboxylic acids-functionalized chitosan microbeads as valuable heavy metal ions sorbents: fixed-bed column studies and theoretical analysis, *Gels*, **8(4)**, 2022: 221-,
23. **D. Humelnicu**, M. Ignat, M.V. Dinu, E. S. Dragan, Optimization of Arsenic Removal from Aqueous Solutions Using Amidoxime Resin Hosted by Mesoporous Silica, *ACS Omega*, **7(35)**, 2022: 31069-31080
24. C. A. Ghiorghita, **D. Humelnicu**, M. V. Dinu, M. Ignat, S. Bonardd, D. Díaz Díaz, E. S. Dragan, Polyelectrolyte Complex Composite Cryogels with Self-Antibacterial Properties and Wide Window for Simultaneous Removal of Multiple Contaminants, *Chem. Eng. J.*, **459**, 2023: 141562
25. E.S., Dragan, **D. Humelnicu**, M.V. Dinu, Multi-Network Cryogels with Enhanced Performances in Removal of Oxyanions from Aqueous Solutions, *Polymers*, **15(4)**, 2023: 885
26. C.A. Ghiorghita, M.M. Lazar, I. V. Platon, **D. Humelnicu**, M. V. Dinu, Feather-weight cryostructured thiourea-chitosan aerogels for highly efficient removal of heavymetals and bacterial pathogens, *Int. J. Biol. Macrom.*, **235**, 2023: 123910
27. M.M. Lazar, C.A. Ghiorghita, E.S. Dragan, **D. Humelnicu**, M. V. Dinu, Ion-imprinted polymeric materials for selective adsorption of heavy metal ions from aqueous solution, *Molecules*, **28(6)**, 2023: 2798
28. I. Zinicovscaia, N. Yushin, **D. Humelnicu**, D. Grozdov, M. Ignat, I. Humelnicu, Adsorption capacity of silica SBA-15 and titanosilicate ETS-10 toward indium ions, *Materials*, **16(8)**, 2023: 3201
29. I. Zinicovscaia, N. Yushin, **D. Humelnicu**, D. Grozdov, I. Humelnicu, M. Ignat, T. Vershinina, Removal of indium ions from aqueous solutions using hydroxyapatite and its two modifications, *Separations*, **10(7)**, 2023: 401,
30. **D. Humelnicu**, C. A. Ghiorghita, I. Humelnicu, E. S. Dragan, Experimental and theoretical investigations on Hg(II) removal by recyclable composite sorbents comprised of polymers bearing thiourea and amidoxime functional groups and mesoporous silica, *Chem. Eng. J.*, **479**, 2024: 147690,
31. I. Zinicovscaia, N. Yushin, D. Sifelani, **D. Humelnicu**, Efficiency of biological versus mesoporous adsorbent for gadolinium removal from wastewater, *Sci. Rep.*, **15**, 2025: 30500
32. M.V. Dinu, **D. Humelnicu**, M.M. Lazar, E.S. Dragan, Exclusive Cationic Composite Cryogels as Potential Filters for Advanced Removal of Metallic Pollutants, Anionic Dyes and Bacteria from Water, *ACS Applied Engineering Materials*, **3**, 2025: 3271-3284