

# Curriculum Vitae



## Personal information

First name / Surname **Doina Humelnicu**  
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[Brainmap](#): U-1700-034H-4058

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## 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

- Editor in Chiefs – Trends in Molecular Science
- Academic Editor Journal of Chemistry
- member in Editorial Board of Journal of Chemistry, International Journal of Environmental Chemistry, International Journal of Nuclear Energy Science and Engineering, Jacobs Journal of Earth 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

- 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
- 1098 ISI citations (exclude self citations), H-index = 18
- 3 national patent

## Additional information

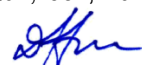
Member of

Member of the Romanian Society of Chemistry  
Member of American Nano Society

## List of relevant published papers

1. I.-C. Popescu, P. Filip, **D. Humelnicu**, I. Humelnicu, T. B. Scott, R. A. Crane, Removal of uranium (VI) from aqueous systems by nanoscale zero-valent iron particles suspended in carboxy-methyl cellulose, *J. Nucl. Mater.*, **443(1-3)**, 2013: 250-255,
2. **D. Humelnicu**, C. Blegescu, D. Ganju, Removal of uranium (VI) and thorium (IV) ions from aqueous solutions by functionalized silica: kinetic and thermodynamic studies, *J. Radioanal. Nucl. Chem.*, **299(3)**, 2014: 1183-1190,
3. I.-C. Popescu (Hoştuc), P. Filip, I. Humelnicu, M. Mateescu, E. Militaru, **D. Humelnicu**, Removal of uranyl ions by p-hexasulfonated calyx[6]arene acid, *J. Nucl. Mater.*, **453**, 2014: 75-81
4. **D. Humelnicu**, M. Ignat, F. Doroftei, Agricultural by-products as low cost sorbents for the removal of heavy metals from dilute wastewaters, *Environm. Monit. Assess.*, **187(5)**, 2015: 187-198,
5. **D. Humelnicu**, M. Ignat, M. Suche, Evaluation of adsorption capacity of montmorillonite-K10 and Al-pillared clay towards  $Pb^{2+}$ ,  $Cu^{2+}$  and  $Zn^{2+}$  ions, *Acta Chim. Slov.*, **62**, 2015: 947-957,
6. 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,
7. 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
8. 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
9. 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
10. **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
11. **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.



12. M. Shammam, 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.
13. 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,
14. **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,
15. D. Humelnicu, E.S. Dragan, M. Ignat, M.V. Dinu, A Comparative Study on Cu<sup>2+</sup>, Zn<sup>2+</sup>, Ni<sup>2+</sup>, Fe<sup>3+</sup>, and Cr<sup>3+</sup> Metal Ions Removal from Industrial Wastewaters by Chitosan-Based Composite Cryogels *Molecules*, **25(11)**, 2020: 2664,
16. 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 Sr<sup>2+</sup> and Cs<sup>+</sup>, *ACS Applied Materials & Interfaces*, **12(40)**, 2020: 44622-44638
17. 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,
18. **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
19. 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
20. 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
21. 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
22. 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
23. **D. Humelnicu**, I. Zinicovscaia, I. Humelnicu, M. Ignat, Experimental studies on the removal of aluminium ions from synthetic aqueous solution by hydroxyapatites, acceptat *Acta Chim Slov.*, **68(4)**, 2021: 821-832
24. 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
25. **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,
26. 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-
27. **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
28. C. A. Gheorghita, **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
29. 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
30. C.A. Gheorghita, M.M. Lazar, I. V. Platon, **D. Humelnicu**, M. V. Dinu, Feather-weight cryostructured thiourea-chitosan aerogels for highly efficient removal of Ag(I) and Pb(II) ions, *Int. J. Biol. Macrom.*, **235**, 2023: 123910
31. M.M. Lazar, C.A. Gheorghita, 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

