

Conf. dr. Doina HUMELNICU

Activitate didactica

Cursuri predate:

- Radioactivitatea mediului
- Tehnici radiochimice in studiul compusilor anorganici
- Chimia nemetalelor
- Compusi radiofarmaceutici
- Metode de analiză radiometrice și radiochimice în investigarea criminalistică

Domeniu de activitate

- îndepărtarea ionilor metalelor grele și radioactive din ape reziduale prin biosorbție utilizând alge și plante hidrofitice,
- îndepărtarea ionilor metalelor grele și radioactive din ape reziduale utilizând diferite tipuri de materiale anorganice (zeoliți, argile, argile stâlpuite, celuloză, chitosan, chitosan modificat etc.)
- sinteza și caracterizarea unor compuși coordinați ai metalelor tranziționale,
- sinteza și caracterizarea unor clase de polioxometalați ai metalelor din blocul f,

Lista publicatii

1. A. Pui, Doina Humelnicu, I. Humelnicu, C. Tanase - Synthesis of some complexes of dioxouranium(VI) with di-halogeno-tetra-methyl salen ligands - *Rev. Roum. Chim.*, **53(3)**, 2008: 177-182
2. G. Drochioiu, K. Popa, Doina Humelnicu, M. Murariu, I. Sandu, Al. Cecal - Comparison of various sensitive and selective spectrophotometric assays of environmental cyanide, *Toxicological & Environmental Chemistry*, **90(2)**, 2008: 221-235
3. R. Tykva, K. Popa, E. Podracka, Doina Humelnicu – ^{226}Ra translocation from soil to selected vegetation in the Crucea (Romania) uranium mining area, *J. Radioanal. Nucl. Chem.*, **278(1)**, 2008: 211-213
4. Al. Cecal, A.I. Cecal, D. Humelnicu, W. Endler, C. Draghici – Environmental Management Implemented in German Universities, *Bull. of the Transilvania University of Brasov*, Vol. I(50), Series I, 2008: 203-206,
5. T. Malutan, A. Pui, C. Malutan, Lucia Tataru, Doina Humelnicu – A fluorescence emission, FT-IR and UV-Vis absorption study of the some uranium (VI) Schiff bases complexes, *J. Fluorescence*, **18(3-4)**, 2008:707-713,
6. Doina Humelnicu, R.I. Olariu, Al. Cecal, - Recovery of some inorganic compounds from the sludges resulted after the leaching of uranyl ions from uranium ores *Environmental Engineering and Management Journal*, **7(4)**, 2008: 401-407,

7. Doina Humelnicu, Romeo-Iulian Olariu, Ion Sandu, Andrei Victor Sandu, Nicolae Apostolescu, Cecilia Arsene - New heteropolyoxotungstates and heteropolyoxomolybdates containing radioactive ions (uranyl and thorium) in their structure., *Rev. Chim. Bucharest*, **59(8)**, 2008: 920-925,
8. Romeo-Iulian Olariu, Doina Humelnicu, Cecilia Arsene, Ion Sandu, Gabriela Carja - Synthesis and chemical characterization of new derivative complexes from UO_2^{2+} and Th^{4+} ions with the (iso)polioxomolybdate and (iso)polioxotungstate clusters, *Rev. Chim. Bucharest*, **59(9)**, 2008: 1052-1056,
9. Doina Humelnicu – Removal of Thorium ions from simulated wastewaters onto Callovo Oxfordian clay, *Ann. St. Univ. Al.I. Cuza Iasi, Seria Chimie*, Tom XVI, 2008:77-84,
10. Doina Humelnicu, Evelini Popovici, Carmen Mita, Emiliana Dvininov - Study on the retention of uranyl ions on modified clays with titanium oxide, *J. Radioanal. Nucl. Chem.*, **279(1)**, 2009: 131-136,
11. Romeo-Iulian Olariu, Doina Humelnicu, Ion Sandu, Ionel Humelnicu, Cecilia Arsene - Physico-chemical characterization of a new silica-polyoxometalate thermally modified unit, *Rev. Chim. Bucharest*, **60(11)**, 2009: 1216-1219.
12. Doina Humelnicu, Romeo-Iulian Olariu, Ion Sandu, Ionel Humelnicu, Andrei Victor Sandu, Cecilia Arsene - Studies on chemical interferences on uranium (VI) and thorium (VI) reaction with (iso)polioxometalates, *Rev. Chim. Bucharest*, **60(12)**, 2009: 1264-1269.
13. Doina Humelnicu, Romeo-Iulian Olariu, Cecilia Arsene, Ionel Humelnicu - Synthesis and characterization of some isopolyoxomolybdates with UO_2^{2+} and Th^{4+} ions, *Ovidius University Annals of Chemistry*, **20(2)**, 2009: 227-231,
14. Doina Humelnicu, Laura Bulgariu, Matei Macoveanu - On the retention of uranyl and thorium ions from radioactive solutions on peat moss, *J. Hazardous Materials*, **174**, 2010: 782-787,
15. R.I. Olariu, Cecilia Arsene, Doina Humelnicu, M. Duncianu, Dorina Mantu, Investigation on environmental radionuclide retention on heteropolioxometallic sorbents for radionuclide analysis by ionic chromatography, *International Journal of Conservation Science*, **1(4)**, 2010: 248,
16. Doina Humelnicu, Cecilia Arsene, Bety Burghel, Mihaela Bertescu, Ionel Humelnicu, Ion Sandu, Dorina Mantu, Romeo-Iulian Olariu - Interaction of Actinide Cations with Heteropolyoxotungstate Ions $[\text{SiW}_{11}\text{O}_{39}]^{8-}$ and $[\text{SiW}_{12}\text{O}_{40}]^4$, *Rev. Chim. Buc* **61(9)**, 2010: 841-844,
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18. Al. Cecal, Doina Humelnicu, K. Popa - The effect of α radiolysis on the U(IV)/U(VI) ratio in uranium-bearing ores, *Rev. Roum. Chim.*, **55(11-12)**, 2010: 979-982,
19. Doina Humelnicu, Maria Valentina Dinu, Ecaterina Stela Drăgan - Adsorption characteristics of UO_2^{2+} and Th^{4+} ions from simulated radioactive solutions onto chitosan/clinoptilolite sorbents., *J. Hazardous Materials*, **185**, 2011: 447-455,
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- derived from 2-furaldehyde and phenylenediamines, *Polyhedron*, **30**, 2011: 2127-2131,
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 22. Doina Hritcu, *Doina Humelnicu*, Gianina Dodi, M.I. Popa - Magnetic chitosan composite particles: evaluation of thorium and uranyl ion adsorption from aqueous solutions, *Carbohydrate Polym.*, 87(2), 2012: 1185-1191,
 23. A. Cecal, *Doina Humelnicu*, V. Rudic, Liliana Cepoi, D. Ganju, Angela Cojocari - Uptake of uranyl ions from uranium ores and sludges by means of *Spirulina platensis*, *Porphyridum cruentum* and *Nostok linckia* alga, *Bioresource Tehnology*, **118**, 2012. 19-23
 24. A. Cecal, *Doina Humelnicu*, V. Rudic, Liliana Cepoi, Angela Cojocari - Removal of uranyl ions from $UO_2(NO_3)_2$ solution by means of *Chlorella vulgaris* and *Dunaliella salinas* alga, *Central European Journal of Chemistry* **10(5)**, 2012: 1669-1675,
 25. Ioana-Carmen Popescu, Petru Filip, *Doina Humelnicu*, Ionel Humelnicu, Thomas Bleigh Scott, Richard Andrew Crane *Journal of Nuclear Materials*, **443**, 2013: 250-255,