




PERSONAL INFORMATION



Mic Mihaela Liliana

 National Institute for Research and Development of Isotopic and Molecular Technologies(NIRDIMT), Cluj-Napoca, Romania
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Sex Female | Date of birth 05/05/1979 | Nationality Romanian

WORK EXPERIENCE

2007 - present

Research Assistant, Scientific Researcher, Scientific Researcher III

National Institute for Research and Development of Isotopic and Molecular Technologies (NIRDIMT), Donat Street, 67 - 103, Cluj-Napoca, Romania

Molecular and Biomolecular Physics Department

Isothermal Titration Calorimetry; Characterization of the bioligand - macromolecule complexes; molecular recognition processes; Characterization of the stimuli-responsive polymeric nanoparticles and testing their applicability in drug delivery processes.

EDUCATION AND TRAINING

oct. 2003 – dec. 2007

PhD in Physics

Babes-Bolyai University, Faculty of Physics, Cluj-Napoca, Romania

The title of PhD thesis: Structural investigations of some heteropolyoxometalates with transition metals and actinides.

- Synthesis of a new compounds classes: sandwich-type heteropolyoxometalates with UIV ions, Keggin and Dawson-Wells heteropolyoxometalates with mixed addenda atoms (W, Mo, V) and tetranuclear clusters of transition ions encapsulated in sandwich-type heteropolyoxometalates.
- Spectroscopic (FT-IR, UV-VIS, EPR) and magnetical methods.

Sept. 2002 – July 2003

M.Sc, Physics

Babes-Bolyai University, Faculty of Physics, Cluj-Napoca, Romania

Atomic and nuclear methods in environmental physics/ Determination of uranium by the fission trace method with neutron isotopic sources

sept. 1998 – July 2002

B.Sc, Physics

Babes-Bolyai University, Faculty of Physics, Cluj-Napoca, Romania

Mathematics – Physics Department/ The gold analysis in sediments by activation with neutrons isotopic sources

PERSONAL SKILLS

Mother tongue(s)

Romanian

Other language(s)

UNDERSTANDING

SPEAKING

WRITING

Listening

Reading

Spoken interaction

Spoken production

English

B1/2

B1/2

B1/2

B1/2

B1/2

Skills acquired during my research activities

- Isothermal Titration Calorimetry (ITC) and applications
- Characterization of intermolecular interactions - inclusion compounds based on cyclodextrins; Study of inclusion complexes between some antibacterial biomolecules and natural or derivatized cyclodextrins by spectroscopic and calorimetric techniques
- Investigation of molecular recognition processes (complementary hydrogen bonds, ligand - macromolecule interactions)

- The design and synthesis of the molecular receptors which have the ability to bind selectively to different cationic species
- Characterization of the bioligand - macromolecule complexes (i.e human serum albumin) by Isothermal Titration Calorimetry
- Characterization of the stimuli-responsive polymeric nanoparticles and testing their applicability in drug delivery processes Identification and control of key parameters involved in binding and release of drugs by smart polymeric nanoparticles with controlled architecture

Driving licence

B

ADDITIONAL INFORMATION

 Specializations, Courses,
Invited talks

- 13 - 15 June 2014 Workshop: Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences "IC-ANMBES 2014"
<http://www.univ-ovidius.ro/avizier-doctorat/250-international-conference-ic-anmbes-2014-brasov>
Invited tack: Characterization of the intermolecular interactions by ITC Calorimetry
- 6 - 11 June 2010 EBSA Biophysics course on: membrane biophysics and lipid/protein interaction, Bordeaux, Franta
http://ebsa.org/portal/biophysics_courses
Invited tack: Assessment of molecular interaction by Isothermal Titration Calorimetry and ¹H NMR
- 1 - 6 oct. 2010 International Autumn School Biophysics and Bioelectrochemistry for Medicine: Basic Concepts, New Techniques and Application Perspective, Brasov, Romania organized with the support of Bioelectrochemical Society (BES) and International Union of Pure and Applied Biophysics (IUPAB)
- 9 - 14 oct.2010 3rd ROMANIAN - SOUTH AFRICAN SYMPOSIUM "Cyclodextrin Inclusion Complexes" Structure, Physicochemical Properties and Molecular Modeling Studies of "Host-Guest" Type Inclusion Complexes - HGCOMP <http://www.itim-cj.ro/hgcomp/index.html>
Invited tack: Nanocalorimetric study of host-guest complexation of two cardiovascular drugs with cyclodextrins
- 18 - 23 Sept. 2009 2nd ROMANIAN - SOUTH AFRICAN SYMPOSIUM "Cyclodextrin Inclusion Complexes" Structure, Physicochemical Properties and Molecular Modeling Studies of "Host-Guest" Type Inclusion Complexes - HGCOMP <http://www.itim-cj.ro/hgcomp/index.html>
Invited tack: Characterization of β-cyclodextrin inclusion complex with vanillin by ¹H NMR and ITC

Projects

Experience in 13 research projects as member/responsible in the project team

Publications

Scientific papers (as main author) published in ISI indexed journals among which the most important are: J. Incl. Phenom. Macrocycl. Chem, Journal of Physical Chemistry B, Journal of Pharmaceutical and Biomedical Analysis, European Biophysics Journal with Biophysics Letters, Rom. Journ. Phys., Journal of Optoelectronics and Advanced Materials Acta Chimica Slovenica, Journal of Radioanalytical and Nuclear Chemistry

Reviewer for Journal of Molecular Structure

Memberships

Member of Romanian Society of Pure and Applied Biophysics