

Dr. Adina COROABA, Post-Doc

Position: 2017-present: – Research Assistant, Centre of Advanced Research in Bionanoconjugates and Biopolymers, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania

Education: Ph.D. (2011-2015) – **PhD** in Chemistry, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania. Thesis: *Contributions on the use of X-ray Photoelectron Spectroscopy in the investigation of organic and inorganic materials*; **M.Sc. (2008-2010)** – Master of Science in Solid Physics, Faculty of Physics, “Al. I. Cuza” University, Iasi, Romania. Thesis: *Methods for nanoparticle size determination*; **B.Sc. (2004-2008)** – Bachelor of Science in Physics, Faculty of Physics, specialization: *Physics-Informatics*, “Al. I. Cuza” University, Iasi, Romania. Thesis: *Centered optical system of the human eye*

Research experience and technical skills: • Characterization of different types of materials, various polymers with industrial applications and bio-applications, different chemical systems with biological applications (magnetite core-shell nanocarriers, functionalized C₆₀ nanoparticles for gene therapy etc.) using X-ray Photoelectron Spectroscopy (XPS) and fluorescence spectroscopy; • Characterization of biological samples (fingernails, hair, DNA, mouse liver cells, mouse carotid artery etc.) in order to determine and establish a degradation mechanism induced by a disease; • Perform research in the field of supramolecular chemistry related to water and ion channels membranes: - synthesis of different supramolecular compounds; designing and mimicking natural ionic membrane by using mini-extruder; - designing and performing fluorescence, circular dichroism, UV-vis, XPS, IR, SEM, TEM, etc. experiments/analyses, data acquisition and interpretation of the results. • Acquisition, processing and data interpretation on: XPS (Axis NOVA, KRATOS Analytical system); spectrofluorimeter (Fluoromax 4, Horiba Scientific); IR (Bruker VERTEX 70, Bruker Optics Inc.). • Expertise in other surface characterization techniques (Raman, AFM, TEM, EDX/SEM) and analytical techniques (UV-Vis, Circular Dichroism).

Trainings: 31.03-30.07.2016 – Research stage in Dynamic interactive systems for constitutional water and ion channels at Institut Européen des Membranes, Montpellier, France; 11-13.10.2011 – Training in fluorescence spectroscopy at HORIBA Jobin Yvon, Chilly Mazarin, France; 8-10.02.2011 – Training in fluorescence spectroscopy at Centre of Advanced Research in Bionanoconjugates and Biopolymers (IntelCentre), “Petru Poni” Institute of Macromolecular Chemistry (PPIMC); 08-12.08.2011 – Training in XPS at IntelCentre, PPIMC; 16.06-11.07.2011 – Training in XPS at IntelCentre, PPIMC.

Computer skills: Microsoft Office; OriginLab; Maple; LabView; C, C++, JAVA; Photoshop; CorelDraw; GraphPad Prism 6; Vision Processing; CasaXPS; OPUS Bruker; ACD NMR Manager; KnowItAll(R) Informatics System 9.5; FluorEssence; ImageJ; ChemDraw.

Languages: Romanian (native language), English (reading, writing, speaking: fluent)

Publications: **28** articles published in ISI journals, **3** articles published in IDB journals

Hirsch index and the total number of citations, according to Web of Science database: H-index: **9**; Sum of the Times Cited (without self-citation): **288**.

Research projects: involved in **10** national/international research projects (**2** as director of the project)