

## **1. Personal information**

**Name and surname:** ASANDEI Alina

**Date and place of birth:** August 31, 1976, Vaslui, Romania

**Present academic position:** Scientific Researcher III (The Science Department, Laboratory of Biophysics and Medical Physics, „Alexandru Ioan Cuza” University, Iași, Romania), Associate Assistant Faculty of Physics, Alexandru Ioan Cuza University

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## **2. Education**

2005-2008 Ph.D. Studies – “Alexandru Ioan Cuza” University Iași, Romania

2003-2005 Master Studies – „Alexandru Ioan Cuza” University, Iași, Department of Physics Laboratory of Biophysics and Medical Physics

1999-2003 Bachelor Studies – „Alexandru Ioan Cuza” University Iași, Faculty of Chemistry, Bachelor program of Chemical Physics

1991-1995 “Emil Racoviță” High School Iași, Romania

## **3. Selected, peer-reviewed research work**

1. Mereuță Loredana, Șchiopu Irina, **Asandei Alina**, Park Yoonkyung, Hahm Kyung-Soo, Luchian Tudor, *Protein nanopore-based, single-molecule exploration of copper binding to an antimicrobial-derived, histidine-containing chimera peptide*, 2012 LANGMUIR, 28 (49) 17079-17091
2. Elisa Campos; **Alina Asandei**; Colin McVey; Joao Dias; Sofia A. Oliveira; Claudio Soares; Tudor Luchian; Yann Astier; *The Role of Lys147 in the Interaction between MPSA-Gold Nanoparticles and the  $\alpha$ -Hemolysin Nanopore*, 2012 LANGMUIR, 28 (44) 15643-15650
3. Mereuță Loredana; **Asandei Alina**; Luchian Tudor, *Meet Me on the Other Side: Trans-Bilayer Modulation of a Model Voltage-Gated Ion Channel Activity by Membrane Electrostatics Asymmetry*, 2011 PLOS ONE, 6 (9) e25276
4. **Asandei Alina**; Mereuță Loredana; Luchian Tudor *The Kinetics of Ampicillin Complexation by gamma-Cyclodextrins. A Single Molecule Approach*, 2011 JOURNAL OF PHYSICAL CHEMISTRY B, 115 (33) 10173-10181
5. **Asandei Alina**, Apetrei Aurelia, Park Yoonkyung, Hahm Kyung-Soo, Luchian Tudor, *Investigation of Single-Molecule Kinetics Mediated by Weak Hydrogen Bonds within a Biological Nanopore*, 2011 LANGMUIR, , 27 (1) 19-24
6. **Asandei Alina**, Apetrei Aurelia, Luchian Tudor, *Uni-molecular detection and quantification of selected beta-lactam antibiotics with a hybrid alpha-hemolysin protein pore*, 2011 JOURNAL OF MOLECULAR RECOGNITION, 24 (2) 199-207
7. Apetrei Aurelia, **Asandei Alina**, Park Yoonkyung, Hahm Kyung-Soo, Winterhalter Mathias, Luchian Tudor, *Unimolecular study of the interaction between the outer membrane protein OmpF from E. coli and an analogue of the HP(2-20) antimicrobial peptide*, 2010 JOURNAL OF BIOENERGETICS AND BIOMEMBRANES, 42, 173-180
8. **Asandei Alina**, Luchian Tudor, *Ion selectivity, transport properties and dynamics of amphotericin B channels studied over a wide range of acidity changes*, 2008 COLLOIDS AND SURFACES B-BIOINTERFACES, 67, 99-106
9. **Asandei Alina**, Mereuță Loredana, Luchian, Tudor, *Influence of membrane potentials upon reversible protonation of acidic residues from the OmpF eyelet*, 2008 BIOPHYSICAL CHEMISTRY, 135, 32-40

## **4. Research interests**

Single-molecule chemistry and stochasting sensing with protein pores Molecular investigation of antimicrobial peptides interaction with biomimetic lipid systems; Peptides and nanoparticles interaction with protein pores, single-molecule investigation of the interaction between small molecule and a CD molecule trapped within the wild-type  $\alpha$ -Hemolysin nanopore.

**Ph. D. Scientific Researcher III Alina Asandei**