

## CURRICULUM VITAE

**Maria Karayianni**



Date of Birth: October 30, 1979  
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### EDUCATION

Feb. 2012 **PhD** in “Polymer Science and its Applications”, Department of Chemistry, National and Kapodistrian University of Athens, Greece.  
Apr. 2007 **MSc** in “Polymer Science and its Applications”, Department of Chemistry, National and Kapodistrian University of Athens, Greece.  
July 2004 **BSc** in Physics, Department of Physics, University of Ioannina, Greece.

### RESEARCH APPOINTMENTS

Feb. 2012 – Dec. 2014 Postdoctoral researcher at Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece.

### SCIENTIFIC INTERESTS

- Physicochemical characterization and self-assembly studies of macromolecules in solution: amphiphilic block copolymers, polyelectrolytes, polyelectrolyte block copolymers, proteins, polymeric micelles, polyelectrolyte nanoparticles, protein-polyelectrolyte complexes.
- Preparation protocols for the development of block polyelectrolyte micelles and nanoparticles, as well as electrostatically self-assembled macromolecular complexes.
- Structural studies of proteins.
- *In* and *ex situ* adsorption studies of amphiphilic block copolymer micelles and polyelectrolyte micelles, protein adsorption into polyelectrolyte brushes, layer-by-layer deposition and formulation of protein-polyelectrolyte multilayers.

### SCIENTIFIC AND TECHNICAL EXPERTISE

Dynamic and static light scattering, Electrophoretic light scattering, Fluorescence spectroscopy, Circular dichroism spectroscopy, Non-invasive vibrational spectroscopic

techniques (ATR-FTIR, NIR, Raman), UV-Vis spectroscopy, Differential scanning microcalorimetry, Isothermal titration calorimetry

## **SELECTED PUBLICATIONS**

1. A. Papagiannopoulos, M. Karayianni, G. Mountrichas, S. Pispas, A. Radulescu, "Self-assembled nanoparticles from a block polyelectrolyte in aqueous media: structural characterization by SANS", *J. Phys. Chem. B*, **2010**, 114 (22), 7482-7488.
2. M. Karayianni, G. Mountrichas, S. Pispas, "Solution behavior of poly(sodium(sulfamate-carboxylate)isoprene), a pH sensitive and intrinsically hydrophobic polyelectrolyte", *J. Phys. Chem. B*, **2010**, 114 (33), 10748-10755.
3. M. Karayianni, S. Pispas, G. D. Chryssikos, V. Gionis, S. Giatrellis, G. Nounesis, "Complexation of lysozyme with poly(sodium(sulfamate-carboxylate)isoprene)", *Biomacromolecules*, **2011**, 12 (5), 1697-1706.
4. M. Karayianni, S. Pispas, "Complexation of stimuli-responsive star-like amphiphilic block polyelectrolyte micelles with lysozyme", *Soft Matter*, **2012**, 8 (33), 8758-8769.