

Magdalena Kowacz

Her main interests are on organization of matter and order creation in water: segregation at the interfaces, soft matter self-assembly (protein folding, micelles, emulsions) or fundamentals of crystal nucleation and growth from solution. The main focus is always on the role of water molecules in organization of matter (hydration phenomena, dynamic water structure, hydration-driven affinity of solutes and surfaces). And the latest inspiration (strongly influenced by research of the group of Prof. Pollack) is on light-water-matter (especially biological molecules) interplay.

Currently she works at Polish Academy of Sciences and leads the project on the effect of infrared light on protein-surface interactions. For several years she worked in Portugal in the Institute of Chemical and Biological Technology as principal investigator in the EU and nationally-funded projects dedicated to the use of ionic liquids to tune crystallization of biological and inorganic crystals in water. She obtained her PhD in 2009 by University of Muenster (Germany) as a result of studies within Marie Curie European Research Network. Her PhD work was devoted to the effect of additives on water structure and solute hydration and consequences for crystal nucleation, growth and dissolution. Since then water has always been her fascination.

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