

Poster Presentation

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Intermolecular interactions in inclusion complexes

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The whole range of interactions can be found between host and guest in supramolecular assemblies from ion-ion interactions, ion-dipole interactions, dipole-dipole interactions through hydrogen bonding, cation- π interactions, π - π stacking to van der Waals forces. Additionally, the same interactions exist between the supramolecular complex and its surrounding, i.e. solvent molecules, neighboring complexes, gases, etc. Recently the interest of scientists in the field of supramolecular chemistry is focused on design and synthesis of water-soluble synthetic macrocyclic ligands which are good receptors for biologically important guest molecules and can mimic the models of biological systems. Studying such complexes may provide new insight into the mechanisms of the formation of similar natural systems and as a consequence will help in better understanding the processes which occur in biological systems and in developing new materials with specific properties and functions. In this presentation the interactions which are stabilizing inclusion complexes of calix[n]arenes and cyclodextrins (host molecules) with guest molecules of biological interest, especially drug molecules will be discussed. This research was partly financed by the European Union within the European Regional Development Fund (POIG.01.01.02-14-102/09)

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