

# **Playing around with polycyclic azoniahetarenes: From selective association with DNA to photoswitchable host-guest interactions**

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The association of ligands with nucleic acids is an important process in biology and in medicine, because it usually induces a significant change of the DNA structure. As a result, the formation of ligand-DNA complexes may have a fundamental influence on the physiological function of the nucleic acid. In this seminar, our approaches to assess the structural parameters that govern the association of DNA-intercalating cationic hetarenes with nucleic acids will be presented. In addition, concepts will be introduced to accomplish a photo-induced complexation and decomplexation of photoactive ligands with DNA.