

Supramolecular Self-Assembly and Functionalization of DNA-Modified Vesicles

In previous work, we showed that phenanthrene oligomers conjugated to DNA assemble into vesicles.[1] The here presented DNA-phenanthrene conjugates were also found to assemble into vesicular objects. The DNA-modified vesicles are investigated by hybridization with a DNA single strand with fluorescence acceptor dyes. By excitation of the DNA-phenanthrene conjugates, energy transfer from the phenanthrene to the fluorescence dye was observed. The vesicles were characterized by atomic force microscopy (AFM), transmission electron microscopy (TEM), UV-vis and fluorescence spectroscopy. In this poster, we will present and discuss the morphology of the supramolecular assemblies as well as the effects of the energy transfer.

