

The synthesis of new amphiphilic p-ter-butylthiacalix[4]arenes containing peptide fragments and their interaction with DNA

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Abstract

© The Royal Society of Chemistry 2015. New water-soluble p-tert-butylthiacalix[4]arenes containing peptide and quaternary ammonium fragments in cone and 1,3-alternate conformations were synthesized and characterized. The interaction of the macrocycles with DNA was studied by UV-spectroscopy, DLS and TEM. It was shown that the interaction of the self-associates based on p-tert-butylthiacalix[4]arenes tetrasubstituted at the lower rim with glycine and quaternary ammonium fragments in cone and 1,3-alternate conformations with DNA led to the formation of particles of about 99-192 nm in size.

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