



Figure 1. Pleated loop conformation of *para*-sulfonatocalix[8]arene².

Keywords: calixarenes, host-guest complexes, molecular recognition

MS36-P11 Hydrogen-bonded dimers of resorcinarene-based oxalamido-containing cavitands

Mario Cetina^{1,2}, N. Kodiah Beyeh¹, Zoran Džolić¹, Kari Rissanen¹

1. Department of Chemistry, University of Jyväskylä, P.O. Box 35, 40014 Jyväskylä, Finland

2. Department of Applied Chemistry, Faculty of Textile Technology, University of Zagreb, Zagreb, Croatia

email: m Cetina@tff.hr

The rational design of organic compounds and their controlled self-assembly through non-covalent associations to give defined supramolecular nano-structures is a stimulative and innovative approach for the development of smart structures and materials with extensive structural diversity and applications. Recently, much attention has been paid to researches on molecular systems containing self-complementary groups with the potential to construct cages, bowls and capsules [1,2].

Herein, we present the crystal structures of two resorcinarene-based oxalamido-containing cavitands featuring extended sides and self-complementary hydrogen bonding sites that form capsular-like structures. The hydrogen bonding interactions in these structures give rise to the formation of dimers. The self-included dimers are linked by numerous intermolecular interactions so forming firstly one-dimensional polymer structures, which are further linked into three-dimensional networks. In the construction of such supramolecular architectures participates various types of interactions, from strong hydrogen bonds (N–H···O, N–H···N) to weak C–H··· π interactions which also play important role in their formation.

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