

The effect of polymorphism on receptor properties of supramolecular receptor

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Abstract

Thermal properties and thermal stability of 5,11,17,23-tetra(tert-butyl)-25,26,27,28-tetrakis[N-(2-acetoxyethyl carbamoylolethoxy)]-2,8,14,20-tetrathiacalix[4]arene in *cone*, *partial cone* and *1,3-alternate* configurations were determined using the combined method of thermogravimetry and differential scanning calorimetry with mass spectrometric evolved gas analysis. The temperature range of existence was determined for polymorphs of calixarene in *cone* and *partial cone* configurations. Quartz crystal microbalance method was used to study the effect of calixarene polymorphism on its receptor properties. The sorption capacity of the studied receptors was shown to depend on their preparation history in the sensor thin layer.