

## Encapsulation of volatile organic substances from their binary mixtures by macrocyclic receptor

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### Abstract

In this article, the clathrate formation of *tert*-butylcalix[6]arene with vapors of binary mixtures of organic compounds was studied using the simultaneous thermogravimetry and differential scanning calorimetry analysis combined with mass spectrometric evolved gas analysis. The temperature ranges of stability and decomposition of the obtained mixed clathrates were determined. The content of each organic component of the binary mixture in inclusion compounds was calculated. The mutual influence of the two 'guests' on the thermal properties of the clathrates was analyzed. The calculated values of the enthalpy of the process of 'guest' removal from the clathrate were compared with the enthalpy of vaporization of these 'guests' at their boiling temperatures.