

Synthesis of stereoisomers of p-tert-butylthiacalix[4]arenes tetrasubstituted at the lower rim containing secondary amide groups and their complexation with a number of singly charged anions

Zhukov A., Fink T., Stoikov I., Antipin I.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The ability of new synthetic receptors, i.e., p-tert-butylthiacalix[4] arenes tetrasubstituted at the lower rim and containing secondary amide groups to form complexes with a number of spherical (F⁻, Cl⁻, Br⁻, I⁻), Y-shaped (MeCOO⁻), trigonal (NO₃⁻), and tetrahedral (H₂PO₄⁻) anions has been studied. It was shown that the nature of substituents on the nitrogen atom of the amide groups and configuration of the macrocycle affect the stability constant values of the forming complexes. © 2009 Springer Science+Business Media, Inc.

<http://dx.doi.org/10.1007/s11172-009-0129-9>

Keywords

Amides, Anions, Complexation, Molecular recognition, Thiacalixarenes