Macroheterocycles 2013 vol.6 N3, pages 219-226

Synthesis of photo-switchable derivatives of p-tert-butyl thiacalix[4]arenes containing ethoxycarbonyl and 4-amidoazobenzene fragments in the lower rim substituents

Vavilova A., Nosov R., Yakimova L., Antipin I., Stoikov I.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

New p-tert-butyl thiacalix[4]arene derivatives containing simultaneously the 4-amidoazobenzene and ethoxycarbonyl fragments at the lower rim in cone and 1,3-alternate conformation of tri and tetrasubstituted derivatives, correspondingly, were synthesized. It was shown that the replacement of the hydroxyl group by ethoxycarbonyl fragment in a 1,3-disubstituted macrocycle with 4-amidoazobenzene groups leads to the binding of fluoride and chloride-anions. The substitution of two hydroxyl groups by ethoxycarbonyl fragments dramatically changed the binding properties of tetrasubstituted p-tert-butyl thiacalix[4]arene derivative.

http://dx.doi.org/10.6060/mhc130748s

Keywords

Anions, Photoisomerization, Receptor, Synthesis, Thiacalix[4]arenes