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Fluorescent probes for fluoride ion based on 1,3-disubstituted at the lower rim thiacalix[4] arenes containing anthraquinone fragments

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Abstract

New thiacalix[4]arenes 1,3-disubstituted at the lower rim containing 1- and 2-amidoanthraquinone fragments were synthesized. Complexation properties of obtained compounds in relation to a number of anions (F⁻, Cl⁻, Br⁻, I⁻, CH₃CO₂⁻, H₂PO₄⁻) were studied using fluorescence spectroscopy. Selective fluorescent probes for fluoride ion were found.