

Mono-, 1,3-Di- and tetrasubstituted p-ter-butylthiacalix[4]arenes containing phthalimide groups: Synthesis and functionalization with ester, amide, hydrazide and amino groups

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Abstract

A number of new p-tert-butylthiacalix[4]arene derivatives in the cone and 1,3-alternate configuration, containing binding sites for alkali metal cations and the phthalimide group were synthesized. The complexation properties of the synthesized macrocycles with alkali metals and silver cations were studied by picrate extraction. As it was shown, the introduction of the phthalimide group in the p-tert-butylthiacalix[4]arenes tetrasubstituted at the lower rim with ester and amide groups significantly influences the selectivity of the extraction of the alkali metal cations. © ISUCT Publishing.

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Keywords

Phthalimide group, Picrate extraction, Recognition of cations, Thiacalix[4]arene