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Enantioselective recognition of amino acids by enantiomerically pure calix[4]arene carboxylic acid or their diastereomerically pure N-(1-phenyl)ethyl amides

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Abstract

The interaction of inherently chiral calix[4]arene carboxylic acids and their amides with amino acids in the organic phase has been studied using electron spectroscopy. It was found that the chiral calix[4]arenes are able of enantioselective recognition of L- and D-forms of amino acids. Stability constants of the calixarene - amino acid supramolecular complexes were determined and mechanism of the host-guest interaction was examined by molecular modeling method. © ISUCT Publishing.

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Keywords

Chiral calix[4]arenes, DFT, Electron spectroscopy, Enantioselective recognition