Thiacalix[4]monocrowns substituted by sulfur-containing anchoring groups: New ligands for gold surface modification

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Abstract

Crown containing calix[4]arenes 2a-f with thioacetate-functionalized carbon chains on lower rim in 1,3-alternate conformation were synthesized starting from corresponding bromo-derivatives. The use of thiacalixcrowns monolayer films improves adhesion between gold and biomolecules (cytochrome c and catalase). The structures of these monolayers were analyzed using contact angle measurements and AFM visualization by discontinuous contact mode. © ISUCT Publishing.

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Keywords

Catalase, Cytochrome c, Gold surfaces, LB films, Thiacalix[4]monocrowns, Thioacetates