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Immobilization of hemoprotein in multilayer matrix of thiacalix [4] arene

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Abstract

Research has been conducted on the formation of films *tetrakis*-(3-cyanopropoxy)-*n-tret*-butyl-thiacalix[4]arene in the conformation *1,3-alternate* on the surface of solid support of indium tin oxide (ITO) by atomic force microscopy (AFM). Calixarene films were obtained by Langmuir-Schaefer method through horizontal transfer of the layer formed at the phase interface water-air with the surface pressure π = 30 $mN \cdot m^{-1}$, on the surface of the solid substrate. By AFM and nanolithography methods we established the capacity of Langmuir-Blodgett films of Calix [4] arene to immobilize the cytochrome enzyme *c* (*cyt c*) on the surface of the indium tin oxide.