

Antioxidant and DPPH (1,1-diphenyl-2-picrylhydrazyl) Free Radical Scavenging Activities of New the Calix[4]arene-bodipy Derivative

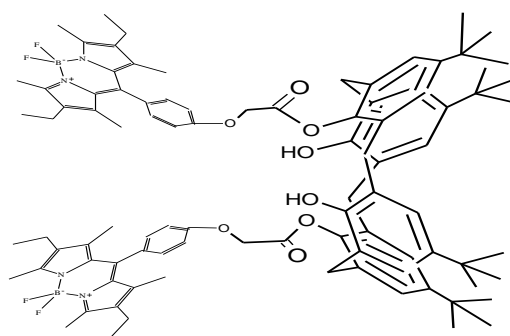
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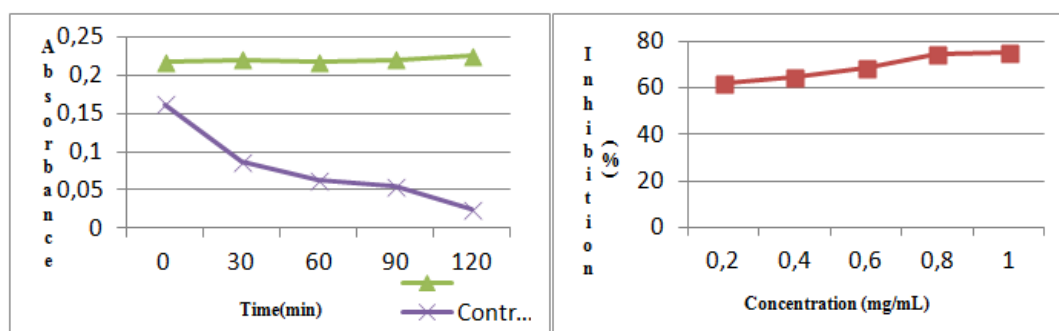
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p-tert-butylcalix[4]arene was synthesized with the condensation reaction of *p-tert*-butylphenol and formaldehyde in basic conditions and then has derivatized from the both of two hydroxyl position with chloride which is containing donor oxygen atoms. BODIPY compound (4,4-difluoro-4-bora-3a,4a-diaza-s-indacene) was synthesized with appropriate pyrrole and aldehyde compounds and then was bonded *p-tert*-butylcalix[4]arene derivative via lower rim hydroxyl groups.



Calix[4]arene-BODIPY

The antioxidant activity of the calix[4]arene-BODIPY compound were determined using β -karotene-linoleic acid system. Moreover, the free radical scavenging activity values were tested with DPPH free radical. The compound showed strong antioxidant activity. Total antioxidant activity of the compound was determined using β -carotenelinoleic acid model system and was found the antioxidant activity of 72,50%. The free radical scavenging activities were determined as 75.19%. Results show that, calix[4]arene-BODIPY compound has the antioxidant activity.



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