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Synthesis of the Novel Azapodands

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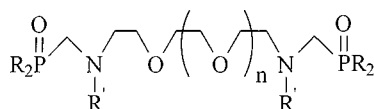
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SYNTHESIS OF THE NOVEL AZAPODANDS

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Phosphorylated podands—the derivatives of linear analogues of crown ethers are known as effective extragents and ionophores. We now report about the synthesis of the novel phosphorylated podands, containing aza groups of general formula.



R=Ph, n-Tol, Am; R' = Bu, Am; n=1,2

SCHEME 1

Various synthetic routes have been suggested. The best method was Kabachnik-Fields type reaction in three-component system between stoichiometric quantities of diorganylphosphinioxides, paraformaldehyde and diaminoaligoethers in benzene. Also azapodands can be obtained by alkylation of α -aminophosphinioxides with dihalogeneoaligoethers. Substances with $n=2$ was prepared by reaction of dihalogeneoaligoether with sodium derivatives N-(β -oxyethyl)- α -aminophosphinioxides. It was found that all azapodands indicate ionophoric properties in respect to alkaline metal ions.

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