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Chiral Molecular Cavities on the Basis of Bis-Tetradiamidophosphite of 1,4;3,6-Dianhydro-D-Mannitol

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CHIRAL MOLECULAR CAVITIES ON THE BASIS OF BIS-TETRADIAMIDOPHOSPHITE OF 1,4,3,6-DIANHYDRO-D-MANNITOL

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Possibility of creation of chiral molecular cavities on the basis of accessible bisphosphorylated derivative of 1,4;3,6-dianhydro-D-mannitol and bisphenols of a various nature was investigated. The molecules of bisphosphorylated derivative (I) represent a deepened "basket" possessing a possibility to fix upon itself a "handle," for example, in the form of a bisphenol residue or diol. Among the investigated bisphenols (HO—X—OH) only 2,2-di-p-hydroxyphenylpropane, di-p-hydroxyphenyldiphenylmethan, 4,4'-dihydroxyphenyl ether, 4,4'-dihydroxyphenylsilfide turned out to be the suitable models for the creation of phosphocontaining macroheterocyclic structures (II) on the basis of D-mannitol derivative (I).



SCHEME 1

In that way, the design of original chiral phosphocontaining cavity systems, representing definite interest for the solution of some modern tasks of supramolecular chemistry, was performed.

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