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Chiral Oligo- and Polyphosphites (Phosphonites, Phosphinites) on the Base of Specifically Orientated in Space Hydroxylcontaining Compounds.

Synthesis, Structure, and Investigation of Complexation

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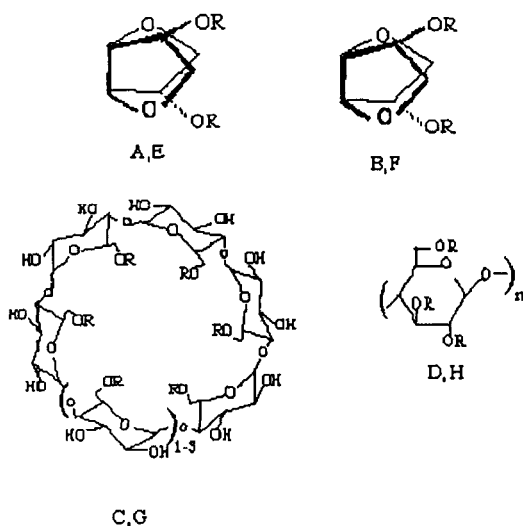
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CHIRAL OLIGO- AND POLYPHOSPHITES (PHOSPHONITES, PHOSPHINATES) ON THE BASE OF SPECIFICALLY ORIENTATED IN SPACE HYDROXYLCONTAINING COMPOUNDS. SYNTHESIS, STRUCTURE, AND INVESTIGATION OF COMPLEXATION.

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The effective methods of phosphorylation of complex systems with specifically orientated in space hydroxyl groups, namely dianhydro-D-mannitol(A), -D-sorbitol(B), cyclodextrines(C), and cellulose(D) (A-D, where R=H), have been elaborated.



Where A-D : R=H; E-H : R=residue of P(III)-derivative, for example:



The factors effecting on the efficiency and the direction of phosphorylation of the indicated compounds were investigated. It was shown, that in the case of shortage of phosphorylation agent the closed in space hydroxyl groups may be subjected to the competitive bis- and cyclophosphorylation because of intramolecular hydroxyl group assistance. P(III)-Azolides turned out to be the most effective phosphorylation means which reduced to minimum the undesirable cyclophosphorylation.