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SYNTHESIS OF FLUORINATED ANALOGUES OF ACYCLIC NUCLEOSIDES AS POTENTIAL ANTIVIRAL AGENTS

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In the search for more effective antiviral agents nucleosides and nucleoside analogues have been explored extensively.

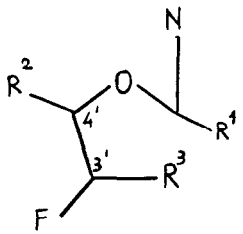
We report the synthesis of a number of acyclic analogues of guanosine, adenosine, and uridine fluorinated at different sites of the acyclic moiety.

All compounds have been obtained in optically pure form by condensing chloromethyl 1,3-disubstituted-2-propyl ethers, chloromethyl 1,3-disubstituted-2-butyl ethers, and 1-chloroethyl 1,3-disubstituted-2-propyl ethers with the desired bases.

Open chain fluoroalcohols, needed as starting materials, have been made available by elaborating homochiral fluorinated ß-ketosulphoxides.

Difluorinated molecules were obtained by DAST treatment of sulphoxide intermediates.

In the nucleoside analogues 1 one or two fluorine atoms are present at the positions corresponding to the 3' and 5' carbon atoms of the sugar molecule.



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