



SYNTHESIS, CHARACTERIZATION AND INTRAMOLECULAR CYCLISATION OF 5-SUBSTITUTED ACYCLIC NUCLEOSIDES

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ABSTRACT

In this paper, synthesis of some new acyclic nucleosides and the intramolecular cyclisation reaction of suitably activated 5-(acetoxymethyl)-1-(2,3-dimethylsulfonyloxypropyl) uracil (**4**) is described. All compounds were characterised by ¹H NMR, ¹³C NMR and elemental analyses. This intramolecular cyclisation reaction involved nucleophilic attack of the C-2 enoxide ion at the C-2' rather than at the C-3' position of the aliphatic chain. The preferred formation of the five-member 2, 2'-anhydro structure was evidenced by the isolation of bicyclic products, 2-methylsulfonyloxymethyl-2,3-dihydro-6-acetoxymethyl-7H-oxazolo [3,2-a]-pyrimidine-7-one (**5**).

Key words: Cyclonucleosides, Anhydronucleosides, Aliphatic nucleosides, Acyclic nucleosides.

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