NOVEL C-NUCLEOSIDE SYNTHESES

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Condensation of 5,6-diamino-1,3-dimethyluracil (1) with di-O-benzylidene aldehydo-sugars (2a-c) and aldehydro-sugars afforded the corresponding Schiff base (3a-c, 5) in an excellent yield, and which were acetylated with acetic anhydride and pyridine to yield acetates (6). In the presence of NBS, the Schiff base (3a-c) and 6 were oxidized to form theophylline C-nucleosides (4a-c). On the other hand, on treatment of 6 with DDQ pteridine C-nucleosides (7) and furanose-type compounds (8), and the latter compounds were treated with ethyl orthoformate to yield pteridine C-nucleosides (9).