UDC 547.963.3: 547.853

SELECTIVE N-BENZOYLATION OF DESOXYCYTIDINE AND CYTIDINE

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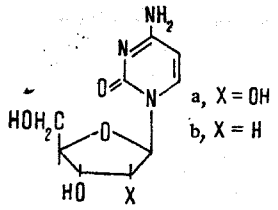
Khimiya Prirodnykh Soedinenii, Vol. 3, No. 5, p. 359, 1967

We have shown that a simple and direct method for the benzoylation of amino groups in nucleosides is their reaction with benzoylazide at 20°–30° C in absolute pyridine.



When cytidine (a) and deoxycytidine (b) were thermostated for 40 hr with a tenfold excess of benzoylazide, the N-benzoyl derivatives were formed quantitatively, and were isolated by evaporation in vacuum at room temperature and subsequent crystallization from water. The benzoyl derivatives were identified chromatographically in a thin layer of silica gel in the butanol–acetic acid–water (4:1:1) system, and spectroscopically. The R_f values corresponded to those of the benzoyl derivatives of cytidine and deoxycytidine obtained by other methods. The UV spectra corresponded to those given in the literature: λ_{max} 260 and 303 mμ, λ_{min} 330 and 284 mμ [1].

REFERENCE

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2 February 1967

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