

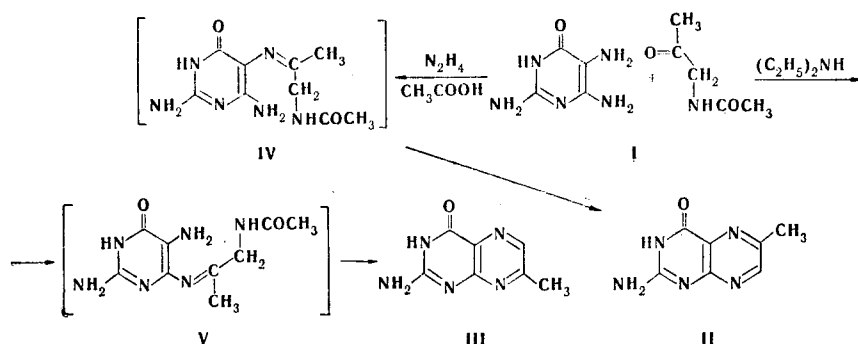
NEW INSTANCES OF THE REGIOSELECTIVE SYNTHESIS OF SUBSTITUTED
PTERINES FROM 2,5,6-TRIAMINO-4-HYDROXYPYRIMIDINE

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We have established that 2,5,6-triamino-4-hydroxypyrimidine (I) reacts with acetamidoacetone in aqueous solutions in the presence of hydrazine (and acetic acid) to give 6-methylpterine (II) and in the presence of diethylamine (refluxing for 8 h) to give 7-methylpterine (III) in 50-60% yields.

Pterines II and III were identified with respect to authentic samples by means of data from thin-layer chromatography and the UV, IR, and PMR spectra [1, 2].



The regioselective reactions of I with acetamidoacetone evidently proceed through intermediate steps involving imino derivatives IV and V and their cyclization and dehydrogenation.

LITERATURE CITED

1. S. I. Zav'yalov and T. K. Budkova, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 2136 (1973).
2. C. B. Storm and R. Shiman, *J. Org. Chem.*, **36**, 3926 (1971).