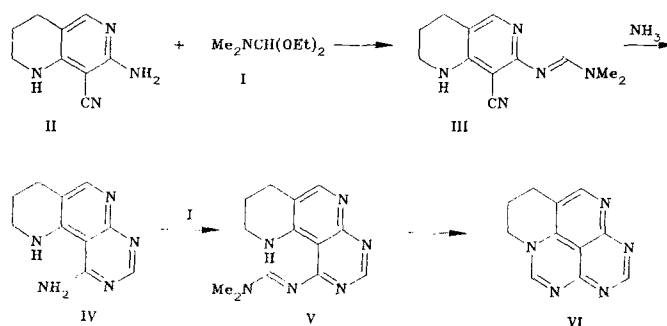


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The successive double application of the method of obtaining N-hetarylamidines by the reaction of dimethylformamide diethyl acetal (I) with heterocyclic amines followed by pyrimidine cyclization has permitted us to make an approach to the synthesis of a new heterotetracyclic system - 2,3,5,6,7 $\alpha$ -pentaazapyrene. By condensing the acetal (I) with 7-amino-8-cyano-1,2,3,4-tetrahydro-1,6-naphthyridine (II) [1], we synthesized the amidine (III) which, on reaction with ammonia, cyclized to the pyrimido[4,5-h]-1,6-naphthyridine derivative (IV). The subsequent condensation of the latter with the acetal (I) followed by thermal cyclization of the intermediate imidine (V) led to 7 $\alpha$ ,8,9,10-tetrahydro-2,3,5,6,7 $\alpha$ -pentaazapyrene (VI). The following are given: compound synthesized; yield, %; mp, °C (solvent for recrystallization): (III), 57, 175-176 (ethanol); (IV), 67, 266-267 (ethanol); (VI), 81, >300 (DMFA).



The composition and structure of compounds (III-VI) were confirmed by their IR and mass spectra. The elementary analyses of compounds (III-VI) corresponded to the calculated figures.

## LITERATURE CITED

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