

THE SYNTHESIS AND REACTIONS OF
3-AMINO-4,4-DIMETHYLSTEROIDS



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ABSTRACT



A study of the syntheses and reactions of 3-amino-4,4-dimethylsteroids by using cholesterol as starting material has afforded seven new compounds : 4,4-dimethylcholest-5-en-3-one oxime, the epimeric 3-amino-4,4-dimethylcholest-5-ene hydrochlorides, N-salicylidone derivatives of the epimeric 3-amino-4,4-dimethylcholest-5-enes, 4,4-dimethylcholestan-3 β -ylamine hydrochloride, and an isomer of 4,4-dimethylcholest-5-en-3 α -ylamine. These 3-amino-4,4-dimethylsteroids were synthesized by reduction of the corresponding oximes which were obtained from cholesterol. Besides, 4,4-dimethylcholestan-3 β -ylamine hydrochloride has also been prepared by catalytic hydrogenation, and an isomer of 4,4-dimethylcholest-5-en-3 α -ylamine from catalytic hydrogenation of 4,4-dimethylcholest-5-en-3 α -ylamine hydrochloride. These results could prove valuable in the steroidal chemistry. The steric course of the deamination of these amines should be determined in the future.

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