(4) *Ind. Eng. Chem.*, 26, 791 (1934).
(5) Univ. Ariz. Coll. Agr., *Tech. Bull.*, 43 (1932).
(6) *Ibid.*, 32 (1931).
(7) *Ind. Eng. Chem., Anal. Ed.*, 7, 23 (1935).
(8) *J. A. O. A. C.*, 17, 323 (1934).
(9) *Ind. Eng. Chem., Anal. Ed.*, 5, 7 (1933).
(10) *J. A. O. A. C.*, 16, 105 (1933).
(11) *Ibid.*, 18, 108 (1935).
(12) *Ind. Eng. Chem., Anal. Ed.*, 6, 134 (1934).
(13) *J. A. O. A. C.*, 16, 612 (1933).
(14) *Ind. Eng. Chem.*, 19, 645 (1927).

A NEW TYPE OF HYPNOTIC AMIDE. *N*-(β-KETO PROPYL) DIETHYL ACETAMIDE.*[1]

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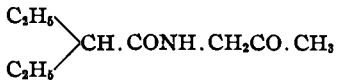
N-(β-keto propyl) diethyl acetamide



was prepared as an example of a new type of hypnotic amide, in which it was hoped that the acetonyl residue might contribute the hypnotic activity residing in acetone itself, so that the activity residing in the diethylacetyl residue would be reinforced. Actually we found that although the compound did display hypnotic action, it was of a very low potency as compared with hypnotics currently in use.

EXPERIMENTAL.

10.1 Gm. of diethylacetyl chloride, boiling point 130–140° C., were added to a solution of 12 Gm. of anhydrous pyridine in 50 cc. of anhydrous benzene. Immediately, the white crystalline molecular compound separated. To this was now added 10 Gm. of amino acetone hydrochloride prepared from chloracetone by the well-known Gabriel synthesis.[2] The reaction mixture was now agitated without heating, whereupon the molecular compound of pyridine and the acid chloride soon disappeared and a yellow crystalline material separated out in its place. After three hours this appeared to be complete, but the reaction mixture was allowed to stand over night.

On the next day, the reaction mixture was diluted with ether and extracted with dilute sulphuric acid solution in order to remove the pyridine; the benzene-ether solution was dried with sodium sulphate and concentrated. Only about 1.25 Gm. of product were obtained in crystalline condition. After recrystallization from benzene the product was pure white and crystalline, melting at 96–97° C.

Nitrogen: Found, 7.91%; calculated for $C_9H_{17}O_2N$, 8.18%.

The minimum effective hypnotic dose for rats is slightly less than 1600 mg. per kilo, as determined in our Biological Research Laboratories. We gratefully acknowledge this assistance.

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* Scientific Section, A. PH. A., Portland meeting, 1935.

[1] Research Department of the Chemical and Pharmaceutical Laboratories, E. R. Squibb and Sons, Brooklyn, N. Y.

[2] Houben and Weyl "Arbeitsmethode der organische chemie," 2nd Edition, volume 4, page 258.