

## LEUCINE-VALINE ANHYDRIDE FROM PEPTONE

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In a study of the products of the vital activity of certain soil microorganisms grown on an agarized nutrient medium containing peptone, we have repeatedly isolated a colorless crystalline substance of neutral character with mp 274–276°C. The same compound was obtained by the direct extraction of peptone (fermentative peptone, GOST 13 805–68) with diethyl ether.

The product under investigation (0.18% of the initial peptone) forms colorless crystals (from ethanol),  $[\alpha]_D^{20}$  (c 1.0; ethanol); IR spectrum,  $\nu_{\max}$  (paraffin oil),  $\text{cm}^{-1}$ : 1680–1660, 1465, 1373, 1352, 1330, 1175, 1145, 1125, 1065, 899, 852.

The substance did not give a positive reaction with alcoholic  $\text{FeCl}_3$ , ninhydrin, or iodine, did not fluoresce in UV light, and had no characteristic peaks in the UV region of the spectrum. When this product was hydrolyzed with 6 N HCl at 105°C for 48 h, an equimolecular mixture of leucine and valine was formed.

On the basis of what has been said above, the compound obtained was identified as leucine-valine anhydride. The DL-leucine-DL-valine anhydride that we synthesized by Sannié's method possessed a similar IR spectrum and chromatographic characteristics.

We are the first to have isolated leucine-valine anhydride from peptone.

### LITERATURE CITED

1. C. Sannié, *Bull. Soc. Chim. France*, **9**, 487 (1942).

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