

PRODUCTION OF RAFFINOSE AND CORCHOROSIDE
A FROM THE WASTES FROM THE PRODUCTION OF OLITORISIDE

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Olitoriside is obtained from the seeds of Corchorus olitorius (jute) [1]. Jute seeds contain, besides olitoriside, a series of valuable substances such as raffinose and chorchoroside A [2] which are eliminated in the form of wastes in the early stages of the isolation of olitoriside. Methods are known for obtaining raffinose and chorchoroside A from plant raw material [3-5].

We propose a method for obtaining an additional amount of these substances from the wastes from the production of olitoriside [1].

Preparation of Raffinose. The sugar fractions precipitated by the treatment of a concentrated ethanolic extract with acetone were dissolved at the boil in a threefold amount of 70% ethanol, 1/30 part of type OU "A" activated carbon was added, and the mixture was boiled for an hour. The hot solution was filtered through a 3-cm layer of kieselguhr. The purified filtrate was left at 0°C for a day. The crystals that had deposited were separated off and washed with two volumes of ethanol. The material was recrystallized from 60% ethanol. The yield of substance corresponding to the requirements of MRTU 6-09-4016-67 amounted to 1.1% of the weight of the raw material.

Preparation of Corchoroside A. In the preparation of corchoroside A, the combined ethereal and chloroform fractions were washed three times with water, and the solvent was distilled off. The residue was treated with ether-methanol-water (1:1:1). After separation into layers, the lower, aqueous methanolic, layer containing the corchoroside A was separated off, passed through a 5-cm layer of alumina, and left for crystallization. The crystals that deposited were separated off and were twice recrystallized from methanol.

The yield of corchoroside A corresponding to the requirements of the Provisional Pharmacopoeial Paper amounted to 38% of the amount in the raw material.

LITERATURE CITED

1. M. T. Turakhozhaev et al., *Khim. Prirodn. Soedin.*, 702 (1970).
2. N. K. Abubakirov et al., *Zh. Obshch. Khim.*, 29, 1235 (1959).
3. N. K. Abubakirov et al., *Zh. Obshch. Khim.*, 28, 2279 (1958).
4. R. U. Umarova et al., *Khim. Prirodn. Soedin.*, 140 (1970).
5. N. P. Maksyutina, *Dokl. Akad. Nauk SSSR*, 150, 180 (1963).

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