

THE ISOLATION OF ERYSIMOSIDE FROM THE SEEDS OF ERYSIMUM CANESCENS

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The cardiac glycoside erysimoside, which has been approved for use in medicine [1], was previously obtained from the seeds of Erysimum canescens (hoary erysimum) [2]. A method for its preparation with a yield of about 1.0% (of the weight of the raw material) has been proposed [3].

We have developed a new industrial method for obtaining erysimoside with a yield of 1.5% (of the weight of the raw material). The comminuted seeds were defatted with gasoline and dried. The glycosides were extracted with 95% ethanol by steeping. The extract was concentrated in vacuum (700-720 mm Hg) at a temperature not exceeding 45° C, and acetone was added to precipitate the sugar substances. Then the extract was separated from the sugars that had deposited and was concentrated and treated with ether to eliminate the residues of fatty oils and resinous substances.

The viscous mass of combined glycosides insoluble in ether was dissolved in water. To purify it from accompanying substances, the aqueous solution was washed with chloroform and passed through a column filled with a mixture of EDE-10-P anion-exchanger (in the OH form) and KU-2 cation-exchanger (in the H-form). The erysimoside was extracted from the purified aqueous solution with a mixture of chloroform and isopropanol (1:1). The chloroformic-ethanolic solution was concentrated until a precipitate appeared and was left for crystallization. The crystals that deposited were filtered off with suction and recrystallized from ethanol. The erysimoside so obtained satisfied the technical requirements.

REFERENCES

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