

CARDENOLIDES OF THE FLOWERS AND BULBS  
OF *Ornithogalum gussonii*

N. F. Komissarenko and P. E. Krivenchuk

UDC 547.926+615.711.5

The isolation of a number of cardenolides from the seed pods and seeds of *Ornithogalum magnum* Krasch. et Schischk. (great star of Bethlehem), family Liliaceae Hall, has been reported previously [1]. The present paper gives the results of a study of the cardenolide composition of the flowers and bulbs of *O. gussonii* Ten, collected in the Zaporozh'e oblast.

The substances were isolated and identified by methods described previously [1]. The cardenolides were isolated from unfermented and from fermented raw material. We obtained sarmentogenin,  $C_{23}H_{34}O_5$ , mp 267-271°C,  $[\alpha]_D^{20} + 21.4^\circ$  (methanol), rohdexin A,  $C_{29}H_{44}O_9$ , mp 249-252°C,  $[\alpha]_D^{20} - 23^\circ$  (methanol); rohdexoside,  $C_{35}H_{54}O_{14}$ , mp 179-182°C,  $[\alpha]_D^{20} - 24^\circ$  (ethanol); rohdexin B,  $C_{29}H_{44}O_9$ , mp 249-253°C,  $[\alpha]_D^{22} - 30^\circ$  (ethanol); substance C,  $C_{29}H_{44}O_{10}$ , mp 250-254°C,  $[\alpha]_D^{19} - 20.8^\circ$  (methanol); and substance D,  $C_{35}H_{54}O_{15}$ , mp 246-251°C,  $[\alpha]_D^{20} - 14^\circ$  (ethanol).

From the mixture of cardenolides fermented with the enzymes of the grape snail we obtained the aglycone sarmentogenin and the monosides rohdexin A, rohdexin B, and substance C, and from the unfermented raw material all the compounds mentioned with the exception of sarmentogenin.

LITERATURE CITED

1. N. F. Komissarenko, *Khim. Prirodn. Soedin.*, 156 (1965); 46 (1969); 38 (1971); 397 (1972).

---

Khar'kov Scientific-Research Institute of Pharmaceutical Chemistry. Translated from *Khimiya Prirodnikh Soedinenii* No. 2, p. 257, March-April, 1974. Original article submitted April 25, 1973.

© 1975 Plenum Publishing Corporation, 227 West 17th Street, New York, N.Y. 10011. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission of the publisher. A copy of this article is available from the publisher for \$15.00.