

#### LITERATURE CITED

1. Yu. V. Roshchin, A. L. Shinkarenko, and E. T. Oganessian, *Khim. Prirodn. Soedin.*, 472 (1970).
2. V. I. Litvinenko and N. P. Maksyutina, *Khim. Prirodn. Soedin.*, 420 (1965).

#### LUTEOLIN 5-O- $\beta$ -L-GALACTOSIDE FROM

#### *Dracocephalum nutans*

A. A. Shamyryna, V. A. Peshkova,  
and N. I. Shergina

UDC 547.972

We have previously isolated cosmosinin and cynaroside from the herb *Dracocephalum nutans* L. [1]. When an ethanolic extract was chromatographed on cellulose, 85% ethanol yielded a flavonoid which we have called DN<sub>3</sub>.

The substance DN<sub>3</sub>, C<sub>21</sub>H<sub>20</sub>O<sub>11</sub>, had mp 220-222°C, R<sub>f</sub> 0.18 (15% acetic acid),  $\nu_{\max}$  (ethanol) 352, 269, 252 nm. Acid hydrolysis (5% sulfuric acid, 3 h) gave the aglycone with mp 326-328°C, R<sub>f</sub> 0.46 (60% acetic acid),  $\nu_{\max}$  (ethanol): 355, 268, 252 nm. On the basis of the results of physicochemical and spectral investigations in comparison with an authentic sample, the aglycone was identified as luteolin [2]. L-Galactose, identified by paper chromatography, was found in the hydrolyzate. The results of IR spectroscopy and enzymatic hydrolysis show the pyranose form of the sugar and the presence of a  $\beta$ -glycosidic bond [3].

On the basis of the facts given above and the results of UV spectroscopy with complex-forming and ionizing additives, the substance DN<sub>3</sub> can be characterized as lutiolin 5-O- $\beta$ -L-galactoside.

#### LITERATURE CITED

1. A. A. Shamyryna, V. A. Peshkova, and N. I. Shergina, *Khim. Prirodn. Soedin.*, 255 (1975).
2. T. J. Mabry, K. R. Markham, and M. B. Thomas, *The Systematic Identification of Flavonoids*, Springer, New York (1970).
3. I. P. Kovalev and E. V. Titov, *Infrared Absorption Spectra of some Groups of Natural Compounds* [in Russian], Khar'kov (1966).

---

Tyumen' State Medical Institute. Irkutsk Institute of Organic Chemistry of the Siberian Branch of the Academy of Sciences of the USSR. Translated from *Khimiya Prirodnikh Soedinenii*, No. 4, p. 577, August-September, 1977. Original article submitted April 4, 1977.

*This material is protected by copyright registered in the name of 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 \$7.50.*