

II. FLAVONOID AGLYCONES

T. K. Chumbalov, T. N. Bikbulatova,
M. I. Il'yasova, and R. M. Mukhamedieva

UDC 547.972

Studying the polyphenol composition of *Myricaria alopecuroides* Schrenk., family Tamaricaceae, from ether and ethyl-acetate extracts by chromatography on silica gel and by TLC on Silufol plates [toluene-ethyl formate-formic acid (10:4:1)] we have isolated three individual substances. In Bryant's cyanidin reaction [1], the crimson pigment passed into the octanol, showing the aglycone nature of these compounds.

On paper in UV light, all the substances were revealed by yellow spots, on the basis of which it may be assumed that they have the nature of flavonols.

Substance (1) had the composition $C_{17}H_{14}O_7$, mp 223-224°C; triacetate with mp 153-154°C. On alkaline cleavage (N_2 , 150°C, 30 min) it formed phloroglucinol monomethyl ether and isovanillic acid. The product of its demethylation with hydriodic acid was quercetin.

Substance (1) was identified as 3,4',5-trihydroxy-3',7-dimethoxyflavone (rhamnazin), as was confirmed by an analysis of spectra.

Substance (2) had mp 292-294°C. In the products of alkaline fusion the monomethyl esters of phloroglucinol and protocatechuic acid were detected. Demethylation gave quercetin. On the basis of these facts, and also UV and IR spectra, substance 2 was characterized as 3,3',4',5-tetrahydroxy-7-methoxyflavone (rhamnetin).

Substance 3 was identified as quercetin, which has been isolated previously from the herbage of *Myricaria alopecuroides* Schrenk [2].

LITERATURE CITED

1. E. F. Bryant, J. Amer. Pharm. Assoc. Sci., Ed. 39, 8, 480 (1950).
2. V. A. Bandyukova and S. F. Dzhumyrko, Khim. Prirodn. Soedin., No. 2, 270 (1970).

S. M. Kirov Kazakh State University. Translated from *Khimiya Prirodnikh Soedinenii*, No. 2, pp. 282-283, March-April, 1975. Original article submitted November 25, 1974.

©1976 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.