

ISOLATION OF RUTIN FROM THE EPIGEAL PART OF AN INTERSPECIES SCOPOLIA HYBRID

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In 1968, I. B. Sandina [1] obtained a hybrid by crossing Scopolia sinensis Hemsl. and S. tangutica Maxim.

The epigeal parts of the parental forms of this hybrid contain coumarins, flavonoids, and phenolcarboxylic acids [2, 3].

We have studied the flavonoids from three-year plants cultivated at the Scientific-Research Station of the V. L. Komarov Botanical Institute and collected in the flowering phase. The amounts of these substances found on extraction by boiling methanol after preliminary purification of the raw material with chloroform was 2.27% (on the absolutely dry weight of the raw material). Two-dimensional paper chromatography [type FN-11 paper in the following systems: 1) butan-1-ol-acetic acid-water (4:1:5) and 2) 15% acetic acid] showed the presence of three substances, with R_f 0.51 (0.55), 0.67 (0.38), and 0.68 (0.56), respectively.

By the combined procedure described previously [4], we obtained a yellow substance with mp 181-184°C (decomp.), R_f 0.51. Yield 0.85%. On the basis of its IR spectrum and a mixed melting point, the substance was identified as rutin [5]. We are the first to have isolated rutin from the interspecies hybrid (F_1 S. sinensis × S. tangutica).

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