FLAVONOID COMPOUNDS OF THE NEEDLES OF THE SIBERIAN PINE

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In the meedles of the Siberian pine — *Pinus sibirica* (Rupr.) Mayr — we have previously found phenolic acids and their glucosides [1] and lignan compounds [2] and have showed that acetophenones were absent [3].

Continuing a systematic investigation of the phenolic compounds of the needles of the Siberian pine we have detected flavonoid compounds.

A methanolic extract of the needles was treated successively with petroleum ether, diethyl ether, and butanol. By chromatography on polyamide with elution by mixtures of chloroform and methanol with increasing proportions of methanol, the diethyl ether extracts yielded kaempferol, quercetin, and myricetin, and the butanolic extracts yielded their 3-O-β-D-glucopyranosides.

The structures of the compounds isolated were established by a combination of chromatographic (PC, TLC, GLC), and physicochemical (IR, UV, and PMR spectroscopy, and mass spectrometry) methods using acid and enzymatic hydrolysis. The physicochemical and spectral characteristics corresponded to those given in the literature [4, 5]. This is the first time that flavonoid compounds have been found in the needles of the Siberian pine.

LITERATURE CITED

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