

NARINGENIN, DIHYDROKAEMPFEROL, AND
DIHYDROQUERCETIN FROM *Equisetum arvense*

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Continuing an investigation of the ether-soluble fraction of an extract of the herb *Equisetum arvense* L. [1, 2] we have found another three flavonoid compounds, present in very small amounts. As the result of repeated chromatographic operations on a polyamide sorbent [chloroform and chloroform-methanol (4:1)] a fraction enriched in these compounds was accumulated. In a chromatographic comparison with authentic samples, a flavanone - naringenin - and flavonols - dihydrokaempferol and dihydroquercetin - were identified in the fraction obtained.

The analysis of these compounds was performed by the GLC of their TMS-ethers [3]. The relative retention times (RRTs) of the TMS ethers of the flavonoids are given below.

TMS Ethers	RRT
Naringenin	1.000
Dihydrokaempferol	1.263
Dihydroquercetin	1.473
Kaempferol	1.789
Quercetin	2.421

The retention time of naringenin, taken as the standard, was 9.5 min. The RRTs of the flavonoids studied coincided with those of authentic samples.

The fraction was analyzed on a Tsvet-4 chromatograph with a flame-ionization detector using helium as the carrier gas with a column 300 × 0.3 cm containing 5% of SE-30 on Chromaton N-AW-DMCS at a column temperature of 283°C and an evaporator temperature of 340°C.

The hydrogenated forms of the flavonoids have not been known previously for the family *Equisetum*.

LITERATURE CITED

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