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FLAVONOIDS OF RHEUM TATARICUM. V

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Continuing an investigation of the seeds and leaves of Rheum tataricum L. fil. [1], we have isolated the total flavonoids. Their separation from a concentrated methanolic extract was achieved on fine Kapron powder. After repeated chromatography of the individual fractions, we obtained quercetin with mp 313°-314° C, isoquercitrin with mp 240°-241° C, meratin with mp 182°-183° C, and rutin with mp 190°-190.5° C.

To determine the flavonoids in the raw material quantitatively [2], they were chromatographed in the ethyl acetate-formic acid-water (10:2:3) system. The spots were cut out and eluted with 1% aqueous ammonium chloride [3]. The optical densities of the eluates were measured with a SF-4A spectrophotometer at a wavelength of 415 mμ [4, 5]. The concentrations were calculated from calibration curves constructed for the pure flavonoids.

The seeds of Rheum tataricum contain 0.05% of quercetin, 0.066% of isoquercitrin, 0.044% of meratin, and 0.072% of rutin, and the leaves contain 0.15%, 0.30%, 0.22%, and 1.45%, respectively.

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FLAVONOLS OF HIBISCUS AND A HYBRID OF HIBISCUS WITH THE COTTON PLANT

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Continuing our investigation [1] of the flavonoids of the hybrid Hibiscus 3209 and 2332, we have isolated a second flavonol.

The products of acid and enzymatic hydrolysis and of peroxide oxidation were compared chromatographically on paper. It was found that the aglycone is identical with quercetin. The sugar was revealed by mixtures of diphenylamine