14. Constitution of Meratin*.

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Recently we have found a new flavonol glucoside from the yellow flower of *Meratia praecox* and designated it meratin¹⁾. As was previously reported, the new coloring matter is composed of one molecule of quercetin and two molecules of glucose. Owing to the scarcity of available specimen we have then concluded, chiefly from its spectrographic behavior, that the glucose residues are combined, probably as a disaccharide, with the 3-hydroxyl group of quercetin. In order to verify this assumption, we have now carried out further experiments concerning the methylation and following hydrolysis of the glucoside. In fact we could obtain hereby 5.7.3'.4'-tetramethyl quercetin in pale yellow prismatic needles, which melted at 191–2°. No depression of melting point was observed, when mixing the substance with an authentic specimen, which we have prepared by acid hydrolysis from completely methylated rutin (quercetin 3-rhamnoglucoside). The constitution of meratin is thus established as 3-*O*-diglucosidyl quercetin, just as we have previously stated.

Experimental.

(Under Collaboration of D. OHATA.)

Extraction of meratin from the yellow petals of *Meratia praecox* was performed according to our formerly given prescription. In this case, however, only 0.45 g of crude glucoside were obtained from 78 g fresh petals (corresponding to about 0.57 per cent.). The smaller yield than that of the previous experiment is due perhaps to a somewhat earlier developmental stage of the flower material.

The product was recrystallized from dilute alcohol, and was obtained in pale yellow needles, Fp. 179–180° (decomp.).

The methylation of the glucoside was easily accomplished by the aid of diazomethane. For this purpose, 0.2 g meratin were dissolved in 10 cc. methyl alcohol, into which an ethereal solution of diazomethane (prepared from 1 g nitrosomethyl urea) was introduced and left over night. After repetition of the same procedure the solvent was evaporated; the resulting sirup was dissolved in 20 cc. 2.5 per cent. sulfuric acid, and heated for one hour at its boiling point. After cooling the crystals formed were collected and dried over anhydrous calcium chloride. Yield ca. 80 mg. Being recrystallized from alcohol, the product separated out as pale yellow prismatic needles, F. 191–2°

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1) K. Hayashi and K. Ouchi: Proc., **22** (1946), 246.

(uncorr.). Being admixed with 5.7.3'.4'-tetramethyl quercetin (Fp. 191-2°), which was prepared from completely methylated rutin by acid hydrolysis, no depression of melting point took place. Furthermore both specimens gave an identical dark brown coloration with ferric chloride.

Estimation of methoxyl groups of dried specimen :

2.582 mg Subst. : 6.473 mg AgI.

Calc. for $C_{15}H_6O_3(OCH_3)_4$: OCH_3 34.63.

Found : „ 33.13.

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