

# FLAVONOIDS FROM THE YELLOW PIGMENT OF THE TEA PLANT

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A yellow pigment has been obtained from the tea plant [1, 2] which contains the whole complex of the initial plant, in particular caffeine, catechins, flavonoids, amino acids, free and reducible sugars, pectin substances, and others [3, 4].

The present paper gives the results of the isolation of flavonoids from the yellow pigment of the tea plant. Of the eight substances of flavonoid nature we have succeeded in isolating five flavonoids - A, B, C, D, and E - by separation on Sephadex G-75.

Three of these flavonoids have been identified by their melting points, their chromatographic mobilities in the presence of organic samples in various solvent systems, by the products of their acid hydrolysis, and by UV and IR spectroscopy.

Flavonoid A with mp 175-176°C,  $\lambda_{\max}^{\text{C}_6\text{H}_5\text{OH}}$  266, 360 nm, proved to be kaempferol 3-glucoside or astragal-  
lin [5].

Flavonoid B with mp 216-217°C,  $\lambda_{\max}^{\text{C}_6\text{H}_5\text{OH}}$  255, 362 nm, is quercetin 3-glucoside or isoquercitrin [6].

Flavonoid C with mp 181-185°C,  $\lambda_{\max}^{\text{C}_6\text{H}_5\text{OH}}$  256, 359 nm, was characterized as quercetin 3-rutinoside or rutin [7].

Flavonoid D is a kaempferol derivative and flavonoid E a quercetin derivative. The sugar moieties in both glycosides consist of glucose and rhamnose, but they are not rutinose. It was not possible to identify these two glycosides because only very small amounts were available.

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