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In order to isolate and study the phenolic compounds from the leaves and bark of the stems of *Persica vulgaris* Mill growing in Uzbekistan we have used paper, column, and thin-layer chromatography [1]. The amounts of the flavonoids in various species of *Persica* have been determined by means of an SF-4A spectrophotometer (Table 1).

According to the literature, several flavonoids have been isolated from the leaves and stem bark of *P. persica* [2-5]. We have made a chemical investigation of the leaves and stem bark of *P. vulgaris* Mill. From a methanolic extract of the leaves by chromatography on a polyamide sorbent [chloroform-methanol (8:2) system] we obtained substances A, B, and C, which formed light yellow acicular crystals.

Substance A, $C_{27}H_{30}O_{17}$, mp 205-207°C (methanol), 257 and 355 nm. Aglycone - yield 48.1%, composition $C_{15}H_{10}O_7$, mp 312-313°C, $[\alpha]_D^{20}$ -80° (c 0.5; ethanol); sugar - glucose.

Substance B, $C_{21}H_{20}O_{11}$, mp 178-180°C, (methanol) 266 and 360 nm. Aglycone - yield 67.8%, composition $C_{15}H_{10}O_6$, mp 277-278°C, $[\alpha]_D^{20}$ -56.0 (c 0.5; ethanol); sugar - glucose.

Substance C, $C_{27}H_{30}O_{16}$, mp 214-215°C (methanol) 266 and 345 nm. Aglycone - yield 46.7%, composition $C_{15}H_{10}O_6$, mp 277-278°C, $[\alpha]_D^{20}$ -56.0 (c 0.5; ethanol); sugar - glucose.

On the basis of the results of a study of the products of hydrolysis, UV spectra with ionizing and complex-forming additives, and IR and NMR spectra substance A was identified as quercetin 3-diglucoside (meratin), B as kaempferol 3-glucoside (astragaline), and C as kaempferol 3-diglucoside.

To isolate the combined phenols from the stem bark it was extracted successively with ether and ethyl acetate. From the ethereal extract by chromatography on a column of polyamide powder [in the chloroform-methanol (9:1) system] we obtained four colorless crystalline substances (I-IV), and from the ethyl acetate extract we obtained two crystalline substances (V and VI).

Substance (I), composition $C_{17}H_{16}O_6$, mp 164-165°C; acetate with mp 130-132°C.

TABLE 1. Dynamics of the Accumulation of Flavonoids in the Leaves of Various Species (% on the absolutely dry weight of the leaves)

| Plant | Date of collection (1972) | | | | | |
|------------------------------------|---------------------------|-------|-------|---------|-------|------|
| | 23.V | 13.VI | 3.VII | 23.VIII | 13.IX | 3.X |
| <i>P. triloba</i> Lindl | 2,23 | 2,51 | 3,07 | 3,27 | 3,35 | 3,54 |
| <i>P. vulgaris</i> Mill | 2,49 | 2,53 | 2,67 | 3,09 | 3,17 | 3,49 |
| <i>P. nucipersica</i> Rorkh | 2,31 | 2,59 | 2,61 | 3,15 | 3,19 | 3,32 |
| <i>P. platycarpa</i> Dech | 2,07 | 2,45 | 2,63 | 3,02 | 3,16 | 3,48 |
| <i>P. ferganensis</i> Kov. et Kost | 2,09 | 2,32 | 2,67 | 3,19 | 3,25 | 3,33 |

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Substance (II), composition $C_{15}H_{12}O_6$, mp 247-248°C; acetate with mp 124-126°C.

Substance (III), composition $C_{15}H_{12}O_6$, mp 237-239°C; acetate with mp 119-120°C.

Substance (IV), composition $C_{16}H_{14}O_6$, mp 224-225°C; acetate with mp 143-144°C.

Their elementary analyses and UV, IR, and NMR spectra permitted these substances to be identified as the aglycones persicogenin, naringenin, aromadendrin, and hesperetin.

Substance (V), yellowish brown crystals with the composition $C_{23}H_{26}O_{11}$, mp 278-280°C; aglycone with mp 164-165°C, sugar - glucose.

Substance (VI), yellowish crystals with the composition $C_{21}H_{22}O_{11}$, mp 221-225°C; aglycone with mp 247-248°C, sugar - glucose.

From the results of a study of the products of acid and enzymatic hydrolysis and alkaline fusion, and also their UV spectra with additives, substances (V) and (VI) were identified as persicogenin 5-β-D-glucoside and naringenin 5-β-D-glucoside, respectively.

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