

The largest amount of ascorbic acid accumulated in specimens from Western China (144 mg-%), Iran, Sweden, Afghanistan, and the BSSR (120 mg-%). In the other samples its amount ranged from 14 to 97 mg-%. Like the carotenoids, the ascorbic acid accumulated mainly in the leaves. There was little of it in the stems, flowers, and fruit.

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PHENOLIC ACIDS OF Iris ensata

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Continuing an investigation of the phenolic compounds of the epigeal parts of Iris ensata Thunb. (Russian iris), we have studied an ethyl acetate fraction obtained as the result of the ethyl acetate treatment of an evaporated methanolic extract [1].

Chromatography on "Filtrak" FN-1 paper in 2% acetic acid showed the presence of four substances which, on the basis of qualitative reactions, were assigned to the phenolic carboxylic acids [2].

The acids were separated by paper chromatography in the 2% acetic acid system and were then eluted with 96% ethanol. Four individual substances were isolated.

Substance (I), $C_{10}H_{10}O_4$, mp 167-169°C, R_f 0.32, bright blue fluorescence in UV light, λ_{max} 323 nm. By comparison with an authentic sample, it was identified as ferulic acid.

Substance (II), $C_9H_8O_7$, mp 209-211°C, R_f 0.40, violet fluorescence in UV light, λ_{max} 310 nm, 290 nm (sh.), was p-coumaric acid.

Substance (III), $C_8H_8O_4$, mp 201-203°C, λ_{max} 260 nm, 290 nm (sh.), R_f 0.65, was identified by comparison with an authentic sample as vanillic acid.

Substance (IV), $C_7H_6O_3$, mp 212-214°C, λ_{max} 255 nm, R_f 0.56, was identified as p-hydroxybenzoic acid.

The epigeal part of Iris ensata contained ferulic acid in largest amount.

This is the first time that any of these phenolic acids have been discovered in plants of this species.

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