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SESQUITERPENOID ESTERS OF *Ferula jaeschkeana*

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Ferula jaeschkeana Vatke is one of the widely distributed species of the genus *Ferula* L. (fam. Apiaceae). The resin of this medicinal plant is used in folk medicine for the treatment of tumors, chronic wounds, and ulcers in people and animals [1]. It must be mentioned that different compounds, consisting of derivatives of ferutinol, akichenol, lancerotol, etc., have been isolated from *F. jaeschkaena*, depending on the growth site [2-5]. We have studied seeds of this plant gathered in the Fergana valley close to Erdan.

The ground seeds were extracted with ethanol. The solvent was distilled off to give a syrupy extract, which was diluted with water in a 1:2 ratio, and the substances were extracted with ethyl acetate. The ethyl acetate extract was treated with 2% sodium carbonate solution and it was then washed with water and dried over Na_2SO_4.

The concentrated ethyl acetate extract (20 g) was separated by column chromatography. The sorbent used was KSK silica gel and the eluents petroleum ether and petroleum ether–ethyl acetate systems with successively increasing concentrations of the latter. The issuance of the substances was monitored by TLC on Silufol plates, the chromatograms being sprayed with a solution of vanillin in concentrated H_2SO_4.

As a result of the chromatographic separation, the following substances were isolated: $C_{23}H_{30}O_5$, mp 130-132°C, M^+ 386 — fercomin; $C_{23}H_{32}O_4$, mp 102-103°C, M^+ 372 — ferutidin; $C_{23}H_{32}O_5$, mp 130-131°C, M^+ 388 — ferutin; $C_{22}H_{30}O_4$, mp 120-121°C, M^+ 358 - ferutinin; and $C_{27}H_{36}O_6$ — mp 160-161°C, M^+ 456 — akichenin. The compounds isolated were identified by a comparison of spectral characteristics and physicochemical constants with the literature [6-9]. This is the first time that fercomin and ferutidin have been isolated form *F. jaeschkeana* growing in the Fergana valley.

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