between the R_f values and the applied electromagnetic field. This is apparently connected with the magnetic permeability of the medium.

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ALKALOIDS OF SOME SPECIES OF *Thalictrum* GROWING IN GEORGIA

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Three species of *Thalictrum* growing in Georgia have been studied for their alkaloid content: *Th. collinum* Wallr., *Th. buschianum* Kem.-Nath., and *Th. foetidum* L. (family *Ranunculaceae*). *Th. buschianum* is endemic to the Caucasus [1-4]. All the plants were collected in the flowering phase (Table 1).

The sum of the alkaloids from the roots and epigeal organs of the plant was obtained by extracting the comminuted raw material with acidified methanolic solutions. The acid extracts after the methanol, had been distilled off, were alkalinized to pH 9, and the alkaloids were extracted exhaustively with chloroform. This gave the combined tertiary bases, which were separated into phenolic and nonphenolic fractions [5, 6].

The alkaline extracts remaining after chloroform treatment were treated with butyl alcohol. The quaternary bases passed into the latter [5].

From the combined quaternary bases from the roots of the *Th. collinum*, a substance with mp 86-88°C was isolated by sublimation. In its IR spectrum, strong absorption bands appeared in the 720 and 885 cm^{-1} regions, showing the presence of a substituted benzene ring, at 1700 cm^{-1} (C=O group), and broadened absorption bands at 3200 and 3400 cm^{-1} were assigned to hy-

TABLE 1

Plant	Site and date of collection (1982)	Sum of the alkaloids, %						Barberine content		
		herbage			roots			herbage	roots	
		phenolic	nonphenolic	quaternary bases	phenolic	nonphenolic	quaternary bases	detected on a chromatogram	detected on a chromatogram	isolated, %
Thalictrum collinum Wallr.	Village of Lukhvano, Tsagerskii region, July 23	0,06	0,03	—	0,12	0,11	1,2	—	+	—
Th. buschianum Kem.-Nath.	Village of Disevi Tskhinvali (Yugo-Osetinskaya AO), July 7	0,12	0,11	0,1	0,13	0,14	2,8	—	+	—
Th. foetidum L.	Village of Askhi, Tsagerskii region, July 24	0,15	0,29	1,01	0,13	0,16	3,8	+	+	0,2

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droxy groups. The substance gave the qualitative reactions characteristic for alkaloids with picric acid and with a 10% ethanolic solution of tannin [8].

The alkaloid berberine was isolated from the combined quaternary bases of the roots of *Th. foetidum* in the form of the hydrochloride, its amount in the raw material being about 0.2% [9, 10].

The plant *Th. collinum* has been introduced into cultivation in an experimental field for medicinal plants of the I. G. Kutateladze Institute of Pharmacochemistry of the Academy of Sciences of the GSSR.

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