

T. hissoricus Lipsky. The sample was obtained on the R. Obi-Khengau, TadzhSSR (8 June 1966) in the fruit-bearing stage. Two hundred grams of the leaves was exhaustively extracted with methanol. After suitable working up, 6.1 g of chloroform alkaloids and 9.31 g of reduced alkaloids (7.73% of the weight of the dry plant) were obtained.

Collection site (Tashkent Region)	Day, month, year	Plant organ	Total alkaloids, % of the weight of the raw material	Crystals, % of the total
Sidzhak	30. III 1963	Epigeal part	18	81
Khumsan	8. IV 1962		16.06	90
Malyi Chimgan	16. IV 1963		11.93	74
Chatkal Range	31. V 1961	Roots	3.68	53
		Epigeal part	6.02	70

From the combined chloroform alkaloids (6.7 g) were isolated 5.14 g of the N-oxide of viridiflorine [2] and 0.2 g of trachelanthine [3], and from the reduced alkaloids (9.37 g) was obtained 4.8 g of viridiflorine [4] and 2.24 g of trachelanthamine [3]. The presence of the same bases was detected in the mother liquor by paper chromatography.

T. korolkovii (Lipsky) B. Fedtsch. The plant was first studied by Men'shikov and Borodin [3]. They obtained 0.4–2.5% of combined alkaloids, from which they isolated trachelanthamine and trachelanthine.

We have also studied *T. korolkovii*. In its early vegetation period, we isolated the same alkaloids but in larger amount [5] (Table).

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ALKALOIDS OF *LEONTICE ALBERTII*

D. Kamalitdinov, S. Iskandarov, and S. Yu. Yunusov

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From the epigeal part of *L. albertii* Rgl., collected in the flowering stage in Fergana Region, chloroform extracted 1.75% of combined bases. From the latter were isolated thaspine [1], N-methylcytisine [2], and a crystalline base with mp 108°–109° C (from petroleum ether), $[\alpha]_D^{25} + 59.3^\circ$ C (c 1.30; ethanol), $C_{15}H_{24}N_2O$, mol. wt. 248 (mass spectrometry).

The base is monoacidic and ditertiary and forms a monomethiodide with mp 249° C (from a mixture of ethanol and acetone). The IR spectrum of the alkaloid has absorption bands due to the presence of a trans-linked quinolizidine (2800–2700 cm^{-1}) and the carbonyl of a six-membered lactam (1655 cm^{-1}) [3].

Reduction of the base with lithium aluminum hydride in absolute ether gave a deoxybase with mp 60°–61° C, $[\alpha]_D^{25} + 41^\circ$ C (c 0.219; ethanol), forming a crystalline hydrochloride, hydriodide, and methiodide. All the physico-chemical properties of this deoxybase, with the exception of the sign of rotation, agreed with those of sophoridine [4].

Dehydrogenation of the alkaloid with mercury acetate gave a base with mp 184°–185° C (from acetone), $[\alpha]_D -416^\circ$ C (c 0.55; ethanol).

A comparison of the properties of the latter with 5-hydroxy-6,7-dehydromatrine showed that they were enantiomorphic forms. Racemic 5-hydroxy-6,7-dehydromatrine melts at 162°–163° C (from acetone) and gives a crystalline perchlorate with mp 196°–197° C (from ethanol). Thus, the alkaloid is the optical antipode of *l*-sophoridine, which has been isolated from Sophora alopecuroides [5].

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IDENTIFICATION OF THE ALKALOIDS OF VINCA ERECTA

Sh. Z. Kasymov, Kh. N. Aripov, T. T. Shakirov, and S. Yu. Yunusov

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The alkaloids of the plant Vinca erecta [1] give various colors with cerium ammonium sulfate, like the bases of V. rosea [2]. The colorations of the spots of some of the alkaloids change instantaneously, those of some others slowly, and those of a third group are very stable. The hydroxyindole alkaloids vinerine and vineridine do not give colors with cerium ammonium sulfate. The R_f values of some of the bases are very similar in one system and differ considerably in another; consequently, for chromatography we selected three systems of solvents: 1) ethyl acetate–methanol (9:1); 2) chloroform–methanol (9:1); 3) benzene–methanol (9:1) (table).

Base	R _f of the bases in the following solvent systems			Color of the spots
	1	2	3	
Akuammidine	0.47	0.50	0.50	Gray
Akuammine	0.09	0.27	0.28	Yellowish red
Akuammicine	0.11	0.34	0.46	Blue, fades
Vincanine	0.10	0.45	0.45	Green
Vincanidine	0.09	0.30	0.35	Brown
Vinervine	0.10	0.25	0.30	Violet, fading instantaneously
Vinervinine	0.12	0.43	0.46	Blue, fades after 15–20 min
Vincarine	0.34	0.50	0.49	Brick red, fades after 30 min
Vincamine	0.43	0.69	0.63	Yellow
Vincaridine	0.34	0.33	0.41	Red-yellow
Isoreserpilline	0.75	0.76	0.66	Violet
Kopsinine	0.2	0.42	0.44	Red
Pseudokopsinine	0.45	0.65	0.55	Red
Ervamine	0.60	0.74	0.75	Blue, changes to yellow after 1 hr
Ervine	0.70	0.79	0.65	Dark yellow
Ervinidine	0.74	0.71	0.67	Violet, fades instantaneously