

## A STUDY OF *Sophora japonica* FOR ITS ALKALOID CONTENT

B. A. Abdusalamov, Kh. A. Aslanov,  
A. S. Sadykov, and O. A. Khoroshkova

UDC 547.944/945

*Sophora japonica* L. (Japanese pagoda tree), which belongs to the family Leguminosae, was formerly considered not to contain alkaloids [1]. However, in an investigation of the epigeal part we have succeeded in detecting the presence of alkaloids. To isolate the alkaloids, the dried and comminuted seeds were defatted with petroleum ether and were treated with methanolic caustic potash, and after drying they were extracted with chloroform in a Soxhlet apparatus. The alkaloids were removed from the chloroform extract with 7% sulfuric acid. The acid solution was made alkaline with 10% caustic potash and was reextracted with chloroform. From 100 g of the air-dry seeds was obtained 0.035 g (0.035%) of total alkaloids.

The combined alkaloids were separated by chromatography on plates of alumina in the benzene-ether-methanol (10:5:2) system, the solution of the combined alkaloids being deposited on the plates in the form of bands. In this way, cytisine, N-methylcytisine, sophocarpine, and matrine were isolated and identified. The other four alkaloids, which were present in small amounts, could not be identified with known alkaloids.

The amounts of alkaloids in the leaves and stems are very small, but it has been possible to demonstrate the presence of matrine in them.

### LITERATURE CITED

1. A. P. Orekhov, *The Chemistry of Alkaloids of Plants of the USSR* [in Russian], Moscow (1965), p. 125.

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V. I. Lenin Tashkent State University. Translated from *Khimiya Prirodnikh Soedinenii*, No. 5, p. 658, September-October, 1972. Original article submitted February 23, 1972.

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