reproducibility of not less than 5% rel. using gradient elution in the n-hexane (100%) → n-hexane—ethanol (85:15) system required 25 centrifugation steps. The results agreed with those obtained with the aid of TLC and the elution of the substances from the spots [7].

It must be mentioned that ACC, like any other chromatographic method requires a strict observance of the standardized conditions for a given mixture of substances. Thus, we used the column packing only once, since its re-use led to extreme compaction of the sorbent which changed the quality of the separation.

Hence, our experimental work has shown that in spite of the length of the analysis, ACC can be used for separating a simple mixture of glycosides at the microgram level and for the quantitative determination of them with the aid of a color reaction.

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ALKALOIDS OF *Eschscholtzia californica*

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UDC 547.943

The plant *Eschscholtzia californica* Cham. (family Papaveraceae), which is widely cultivated in the whole of the European territory of the USSR as a decorative plant and is in the catalog of the majority of botanical gardens of this region, has not yet previously been studied chemically in the Soviet Union. We have investigated the alkaloid composition of *E. californica* collected in the period of flowering and incipient fruit-bearing in the botanical garden of the Pyatigorsk Pharmaceutical Institute. Methanolic extraction of the epigeal part yielded 1.1% of total alkaloids on the weight of the dry plant. These were separated into phenolic and nonphenolic fractions. The nonphenolic material was treated with methanol, and allocryptopine and protopine were isolated [1]. The mother liquor after the evaporation of these alkaloids was chromatographed on a column of silica gel. Elution with chloroform and chloroform—ethanol in various proportions gave protopine, allocryptopine, and eschscholtzine [2].

The total phenolic alkaloids were separated similarly, and isocorydine and N-methyllaurotetanine, quantitatively the main alkaloid, were isolated [3, 4].

Californidine was isolated from the fourth fraction in the form of its iodide [5].

All the alkaloids isolated were identified on the basis of physicochemical properties (melting points, TLC), spectral characteristics, (UV, IR, NMR, and mass spectroscopy), and direct comparisons with authentic samples.

This is the first time that isocorydine has been isolated in plants of the genus *Eschscholtzia*.

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Translated from Khimiya Prirodnykh Soedinenii, No. 2, pp. 242-243, March-April, 1983. Original article submitted May 25, 1982.

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ALKALOIDS OF *Carica papaya*. II.

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UDC 547.944/945

From the combined alkaloids of the leaf blades of *Carica papaya* L. introduced into the Gagra out-station of the Main Botanical Garden of the Academy of Sciences of the USSR we have previously isolated and identified the alkaloid carpaine [1].

By preparative TLC in a fixed layer of LS 5/40 silica gel in the ethanol—acetic acid—water (52:25:25) system we have now isolated a crystalline base. After two recrystallizations no additional spots, either of alkaloids or of other substances of basic nature, appeared on PC or on one- and two-dimensional TLC chromatography. The base isolated had mp 66-68°C, $[\alpha]_D^{20}$ + 4.95°C (c 1.0; ethanol). Its IR and NMR spectra were identical with those of pseudocarpaine [2, 3].

A comparison of the results obtained with those given in the literature permitted the base isolated to be considered as pseudocarpaine.

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Tbilisi State Medical Institute. Translated from Khimiya Prirodnykh Soedinenii, No. 2, p. 243, March-April, 1983. Original article submitted August 30, 1982.

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