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Carpaine [1] — an alkaloid from Carica papaya L. (papaya), family Caricaceae — is known as a cardiotonic agent [2]. The tropical plant papaya has been introduced into the Gagra out-station of the Main Botanical Garden of the Academy of Sciences of the USSR. We have studied it for its alkaloid constant. The total yield of combined alkaloids in the leaves of the spring and autumn prunings amounted to 0.4%. Three alkaloids were found to be present by TLC and PC in various solvent systems.

The comminuted dry leaves were extracted with 80% ethanol, and the extract was concentrated in vacuum until the solvent had been driven off completely. The residual aqueous solution was made alkaline with potassium carbonate and was treated with benzene. The benzene was evaporated off in vacuum to a dry residue, which was dissolved in boiling acetone, and the solution was filtered [3]. From the filtrate was isolated a substance which, after recrystallization from acetone, had mp 120-121°C, $[\alpha]_D$ +21.65° (c 1.0; ethanol). The IR spectrum showed absorption bands at (cm⁻¹) 3320 (>N-H group), 1718 (ester >C==0), and 1236 (-O-, ester oxygen). The base did not dissolve in water but dissolved readily in organic solvents. It gave a hydrochloride with mp 225°C and a chloraurate with mp 205°C. The comparison of the results obtained with literature information indicated that the base isolated was carpaine.

LITERATURE CITED

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I. G. Kutateladze Institute of Pharmacochemistry, Academy of Sciences of the Georgian SSR, Tbilisi. Translated from Khimiya Prirodnykh Soedinenii, No. 3, p. 414, May-June, 1978. Original article submitted October 26, 1977.