

PROTOPINE AND ALLOCRYPTOPINE FROM
Argemone mexicana

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We have investigated the epigeal part of the plant *Argemone mexicana* (Mexican picklepoppy), family Papaveraceae collected in the flowering and fruit-bearing period on the banks of the Blue Nile at Khartoum (Sudan Democratic Republic).

The combined alkaloids (0.6%) were isolated by ethanolic extraction in a Soxhlet apparatus (1 kg of raw material), and these were then separated into several fractions. The weakly alkaline fraction (NaHCO_3), by extraction with ether and subsequent fractional crystallization, yielded two individual bases.

The first alkaloid, with the composition $\text{C}_{20}\text{H}_{19}\text{O}_5\text{N}$, after vacuum sublimation and recrystallization from ethanol had mp 204-205°C. Yield 0.09%. Optically inactive, R_f 0.74 [TLC, petroleum ether-diethyl ether-methanol (25 : 25 : 1.5) system], 0.70 [paper chromatography, butan-1-ol-acetic acid-water (10 : 1 : 3) system]. On the basis of a mixed melting point, the UV and IR spectra, and chromatography, this alkaloid was identified as protopine.

The second alkaloid, $\text{C}_{21}\text{H}_{23}\text{O}_5\text{N}$, after sublimation and recrystallization from ethanol, had mp 158-159°C. Yield 0.32%. Optically inactive, R_f 0.49 [TLC in the petroleum ether-diethyl ether-methanol (25 : 25 : 1.5) system], 0.73 [paper chromatography in the butan-1-ol-acetic acid-water (10 : 1 : 3) system]. From its physical properties and by a direct comparison, the base was identified as allocryptopine [1].

The alkaloids isolated, which are particularly widely distributed in representatives of the family Papaveraceae [2, 3], are the main alkaloids present in *Argemone mexicana* L.

LITERATURE CITED

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