

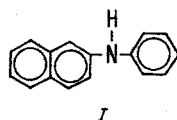
# N-PHENYL- $\beta$ -NAPHTHYLAMINE FROM THREE SPECIES OF PLANTS

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From the epigeal part of *Aconitum karacolicum* growing in the upper reaches of the R. Tyup (KirgSSR), and also from the plants *Reseda lutea* and *R. luteola* collected in the early vegetation period in the Samarkand oblast we have isolated a base  $C_{16}H_{13}N$  with mp 109-110°C (petroleum ether-acetone).

In the IR spectrum of the base there are absorption bands at  $3400\text{ cm}^{-1}$  (active hydrogen) and 1630, 1600, and  $1510\text{ cm}^{-1}$  (aromatic rings). In the NMR spectrum there are the signals of twelve aromatic protons (multiplet in the 6.70-7.75-ppm region) and a broadened one-proton singlet at 5.68 ppm. In the main spectrum of the alkaloid, the peak with the highest intensity is that of the molecular ions ( $M^+$  219), and there are also the peaks of ions with  $m/e$  218, 217, 127, 115, and 77. The results of a study of the mass spectrum of the alkaloid and a comparison of it with the spectra of other compounds of the same composition showed that it is practically identical with the spectrum of N-phenyl- $\alpha$ -naphthylamine, mp 60°C. The substantial difference in the melting points permitted the assumption that the base isolated is N-phenyl- $\beta$ -naphthylamine (I), the melting point of which coincides with that of the base isolated; the spectral characteristics agree well with this structure.



For a definitive conformation, we compared the base with a synthetic sample of N-phenyl- $\beta$ -naphthylamine obtained by condensing the  $\beta$ -naphthol with aniline [1], and established their complete identity.

N-phenyl- $\beta$ -naphthylamine has not previously been isolated from plants.

## LITERATURE CITED

1. R. J. Friedlander, Ber., **16**, 2077 (1883).

Institute of the Chemistry of Plant Substances, Academy of Sciences of the Uzbek SSR, Tashkent. Translated from Khimiya Prirodnikh Soedinenii, No. 3, pp. 406-407, May-June, 1976. Original article submitted January 13, 1976.

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