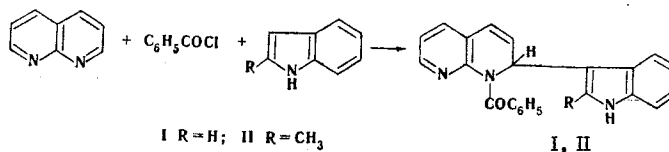


## 1,8-NAPHTHYRIDINE IN THE HETARYLATION REACTION

A. K. Sheinkman, V. P. Marshtupa,  
N. M. Shneer, L. G. Sharanina,  
and V. V. Petrenko

UDC 547.834.2:752

1-Acyl-2-(3-indolyl)-1,2-dihydro-1,8-naphthyridines were obtained by reaction of 1,8-naphthyridine with indoles in the presence of acylating agents. The reaction evidently proceeds through the intermediate formation of an N-acyl salt of naphthyridine, which attacks the indole ring electrophilically.



The individuality of the compounds obtained was monitored by thin-layer chromatography (TLC) on Silufol. The high-resolution mass spectra confirmed the empirical compositions of the molecular ions of the compounds and most of the fragment ions. For example, the following m/e values were obtained for I:  $M$  351,  $[M - COC_6H_5]^+$  246,  $[(M - COC_6H_5) - Ind]^+$  130, etc. The IR spectra also confirm the structures of the synthesized compounds:  $\nu_{NH}$  3440 and  $\nu_{CO}$  1680  $cm^{-1}$ . The results of elementary analysis confirm the empirical formulas of I and II. 1-Benzoyl-2-(3-indolyl)-1,2-dihydro-1,8-naphthyridine (I), with mp 140°C, was obtained in 57% yield.

The picrate of 1-benzoyl-2-(2-methyl-3-indolyl)-1,2-dihydro-1,2-naphthyridine (II), with mp 160°C, was obtained in 67% yield.