

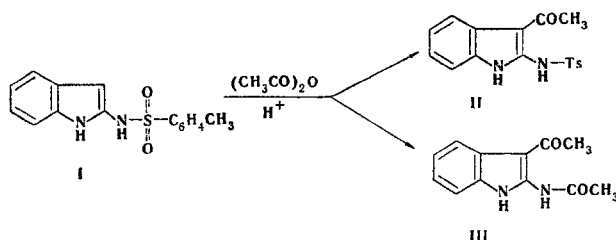
# ACYLATION OF 2-TOSYLAMINOINDOLE WITH ELIMINATION OF THE TOSYL PROTECTIVE GROUP

A. N. Kost, R. S. Sagitullin,  
and V. V. Men'shikov

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Acylation of 2-tosylaminoindole in pyridine with acetic anhydride leads to pyridylacylation of 2-tosylaminoindole [1]; this is in agreement with the data obtained for indole [2].

We have shown that the monoacetyl (II) and diacetyl (III) derivatives of 2-aminoindole (i.e., in addition to acylation of the 3 position of indole, one observes acylation with elimination of the tosyl group) are formed when 2-tosylaminoindole (I) is refluxed in acetic anhydride in the presence of phosphoric acid.



The mass spectrum of III contains a molecular ion peak at  $m/e$  226 and peaks of characteristic (including metastable) ions that confirm the structure of the compound. The absence of a 3-H signal and the presence of two signals corresponding to the protons of N-H groups in the PMR spectra of II and III indicate that the acetyl group is attached to C<sub>(3)</sub> of the indole molecule. The structures given above are also confirmed by the UV and IR spectra. Our data for III coincide with the data described in the literature. Similar results were obtained in the reaction with propionic anhydride.

## LITERATURE CITED

1. A. S. Bailey, A. J. Buckely, W. A. Warr, and J. J. Wegwood, *J. Chem. Soc., Perkin I*, 2411 (1972).
2. A. K. Sheinkman, *Khim. Geterotsikl. Soedin.*, No. 1, 3 (1974).

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