## BASIC DEUTERIUM EXCHANGE IN THE INDOLIZINE SERIES

S. I. Bobrovskii, E. V. Babaev, and Yu. G. Bundel'

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Using 2-methyl-6-nitroindolizine as a model indolizine we have for the first time demonstrated selective basic deuterium exchange at position 5. Thus a sample of I was refluxed for 5 h in a solution of 4 mole/liter MeONa in MeOD. In its NMR spectrum the integrated intensity for the lowest field signal for 5-H fell more than 30 times while the remainder of the spectrum remained unchanged.



Monodeuteration was confirmed by mass spectrometric data. Solution of I in  $CF_3COOH$  led to formation of the 3H-indolizinium cation (II) which had "shifted" PMR signals and allowed a specific assignment of the deuterium exchange position (the spectra of non-deuterated I and II are given in [1]). Under the same conditions it was found that 2-methyl-8-nitroin-dolizine did not undergo deuterium exchange.

## LITERATURE CITED

1. S. I. Bobrovskii, E. V. Babaev, and Yu. G. Bundel', Khim. Geterotsikl. Soedin., No. 2, 203 (1987).

M. V. Lomonosov State University, Moscow, 119899. Translated from Khimiya Geterotsiklicheskikh Soedinenii, No. 9, pp. 1285, September, 1987. Original article submitted February 2, 1987.