UNUSUAL REACTION OF 2-VINYLOXYPYRIDINE WITH BROMINE

G. G. Skvortsova, D. G. Kim, and M. V. Sigalov

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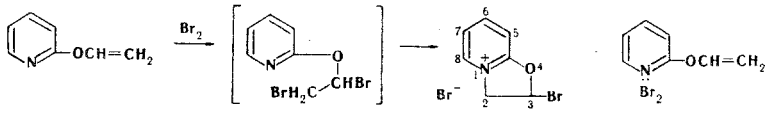
We have previously shown [1] that 2-vinyloxypyridine (I) reacts readily with one molecule of bromine. In the present research we have shown that this reaction in carbon tetrachloride gives 2-bromooxazolino-[3,2-a]pyridinium bromide (III) with mp 103-105° (precipitated from ethanol solution by the addition of ether).



I II III IV

The PMR spectrum of III (with CD_3OD) contains signals of the pyridine ring at δ 8.87 (5-CH, d), 8.64 (7-CH, t), and 7.75 ppm (6-CH and 8-CH, m) and signals of an oxazoline ring. The latter from an ABX system with chemical shifts of 7.57 (2-CH, q) and 5.64 (3-CH_2, m). The magnitude of the chemical shift of the protons of the CH_2 group (5.64 ppm) repudiates possible structures II and IV.

An absorption band of C–Br vibrations at 600 cm^{-1} is present in the IR spectrum of III (KBr pellet).

LITERATURE CITED

1. S. M. Tyrina, G. G. Skvortsova, V. K. Voronov, D. G. Kim, and V. I. Skorobogatova, Khim. Geterotsikl. Soedin., 626 (1971).

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