UNUSUAL REACTION OF 2-VINYLOXYPYRIDINE

WITH BROMINE

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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).

$$OCH = CH_2$$

$$Br_2$$

$$Br_2$$

$$Br_3$$

$$Br_1$$

$$Br_2$$

$$Br_3$$

$$Br_3$$

$$Br_4$$

$$Br_5$$

$$Br_5$$

$$Br_5$$

$$Br_5$$

$$Br_5$$

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-CH₂, m). The magnitude of the chemical shift of the protons of the CH₂ 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

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