The reactions were carried out in ethanol at room temperature with diethylamine as the base; the reagent ratio was 1:1:1. All of the synthesized substances had satisfactory results of elementary analysis. The following compounds were obtained (melting points and yields given): IIa, 129-130°C, 70%; IIb, 101-102°C, 53%; IV, 158-159°C, 75%.

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NEW REACTION INVOLVING THE DETRITYLATION OF N-TRITYL-SUBSTITUTED CYCLIC AMINO ACIDS

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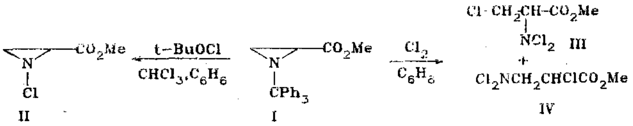
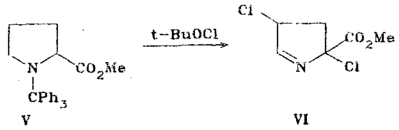
The removal of an N-trityl protective group can be accomplished by acidic hydrolysis or catalytic hydrogenation [1]. For the first time we have observed the detritylation of methyl esters of N-tritylazine (I) and N-tritylproline (V) under the influence of chlorinating reagents. The reaction of ester I with tert-butyl hypochlorite leads to trans-1-chloro-2-methoxycarbonylaziridine (II), which, according to the PMR and mass spectra, is identical to the compound previously obtained in [2]. The reaction with chlorine is accompanied by opening of the aziridine ring and the formation of an equimolar mixture of methyl esters of N,N-dichloro-β-chloro-α-alanine [III, PMR spectrum (360 MHz, $CDCl_3 + C_6D_6$): 3.49 (s, 3H, OMe); 3.64 and 3.73 (two AB quartets, 2H, CH_2); 4.08 ppm (AB quartet, 1H, CH); ^2J = 11.2, ^3J = 4.6 and 7.8 Hz] and N,N-dichloro-α-chloro-β-alanine [IV, PMR spectrum (360 MHz, $CDCl_3 + C_6D_6$): 3.49 (s, 3H, OMe); 3.72 and 4.00 (two AB quartets, 2H, CH_2); 4.36 ppm (t, 1H, CH); ^2J = 13.5, ^3J = 6.3 and 6.3 Hz]. Ester I does not react with N-chlorosuccinimide or sodium hypochlorite (according to TLC data).





Detritylation to give 2-methoxycarbonyl-2,4-dichloro-5-pyrroline (VI) also occurs in the reaction of ester V with tert-butyl hypochlorite. IR spectrum of VI (film): 1683 (C=N) and 1700 cm^{-1} (C=O). PMR spectrum (90 MHz, $CDCl_3$): 2.99 and 3.07 (two AB quartets, 2H, CH_2; ^2J = 14.4, ^3J = 7.0 Hz); 3.82 (s, 3H, OMe); 4.91 (two t, 1H, 4-H; ^3J = 3.0 and 7.0 Hz); 7.65 ppm (d, 1H, 5-H; ^3J = 3.0 Hz).

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