The results of elementary analysis were in agreement with the calculated values.

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FORMATION OF N-VINYL DERIVATIVES OF 1,2,4-TRIAZOLE

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Reactions for obtaining N-vinyl derivatives of 1,2,4-triazole either by the action of acetylene in an autoclave under pressure in the presence of catalysts [1, 2] or by transvinylation with vinyl acetate in the presence of sulfuric acid [3, 4] are known. Vinyl exchange of 5-substituted tetrazoles with vinyl acetate using the mercury acetate—boron trifluoride etherate catalytic system has been described for compounds of the heterocyclic series [5].

We have observed that for compounds of the triazole series transvinylation also takes place successfully in the presence of this catalytic system. In this case the undesirable resinification and polymerization processes are reduced to a minimum. The reaction time can be decreased from 48 h to 24 h. The catalytic system was tested with 1,2,4-triazole (I) and 3,5-dichloro-1,2,4-triazole (II).

A 0.4-ml sample of BF_3 etherate was added with stirring to a solution of 0.24 g of mercury acetate, 0.1 mole of I or II, and 0.005 g of hydroquinone in 15.7 ml of vinyl acetate, and the mixture was heated for 24 h at 50-60°C. At the end of the reaction, 0.6 g of sodium bicarbonate was added, the vinyl acetate was removed by distillation, and the residue was fractionated in vacuo. The yields of vinylation products ranged from 60% to 70%. The characteristics of the products were in agreement with the data for 1-vinyl-1,2,4-triazole [1, 2] and 1-vinyl-3,5-dichloro-1,2,4-triazole [6].

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