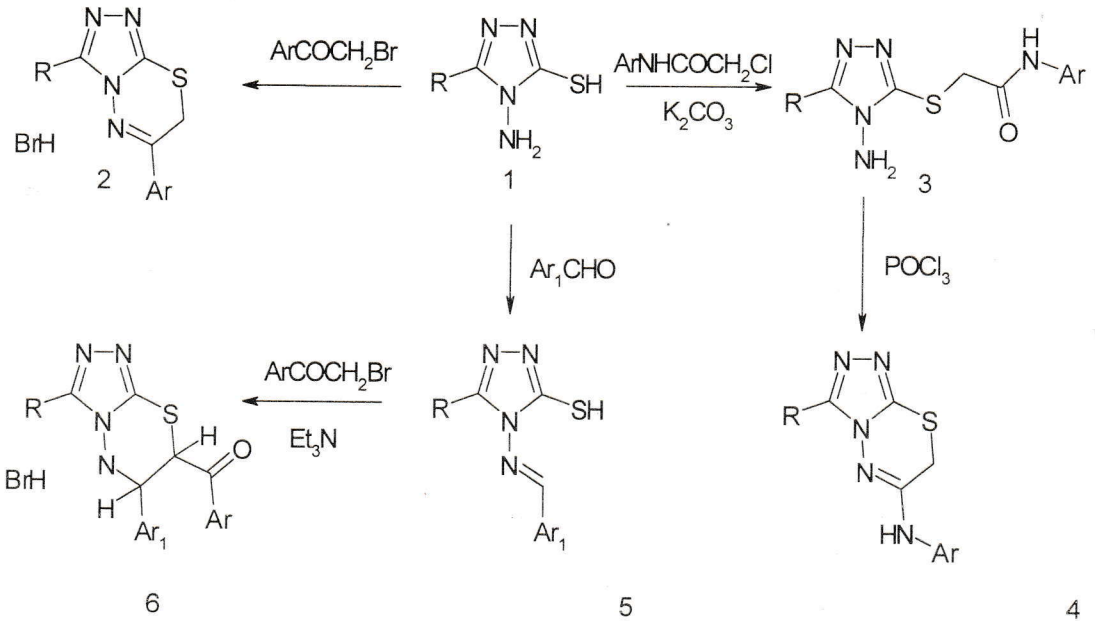
SYNTHESIS OF 7H- [1,2,4] TRIAZOLO [3,4-b] [1,3,4] TIADIAZINE DERIVATIVES

V. A. Yanchenko, V.V .Malishev, A.R.Khairulin, A.M. Demchenko

The Chernigov T.G.Shevchenko Pedagogical University
14038 Chernigov, Hetmana Polubotka street, 53. E-mail: demch@cn.relc.com

The wide spectrum of biological efficiency of 1,2,4-triazoles derivatives (antibacterial, antiviral, antifungal, antihypertonic, antiinflammatory and other aspects of activity) results in the great interest to the investigation of these systems.



We have synthesized a series of 4-amino-5-R-4H-1,2,4-triazole-3-thiole (2-6) derivatives. It was shown, that the according 3-R-6-arylamino-7H-[1,2,4]triazolo[3,4-b][1,3,4] thiadiazines (4) are formed at the result of alkylation of 1,2,4-triazole (1) derivatives by α-chloroacetanilides and subsequent ring formation in phosphorus oxychloride. It is established, that one or several stereoisomers can be formed at two asymmetric atoms of carbon during the synthesis of 6,7-dihydro-5H-[1,2,4]triazolo[3,4-b][1,3,4] thiadiazines (6) in dependence of electron donation of the aryl substituent in the sixth position of the system. It was marked, that the mixtures of isomers have a legible ratio for groups of compounds with the identical substituent in the sixth position of the system.

The structure of all the compounds synthesized is confirmed by NMR-spectroscopy and mass-spectrometry data. The composition of the compounds is confirmed by the element analysis data.