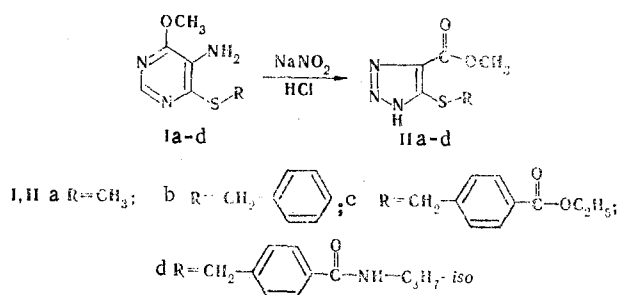


CONVERSION OF 4-METHOXY-5-AMINO-6-MERCAPTOPYRIMIDINE SULFIDES
UNDER DIAZOTIZATION CONDITIONS TO 1,2,3-TRIAZOLE DERIVATIVES

M. P. Nemeryuk, A. L. Sedov,
I. Krzhempelka, and T. S. Safonova

UDC 547.854.83'791.6

It is known that pyrimido[4,5-b]thiadiazoles are formed in the diazotization of 5-amino-6-mercaptopyrimidines [1]. We have observed that sulfides of 5-amino-6-mercaptopyrimidines, particularly 4-methoxy-5-amino-6-alkyl(aralkyl)thiopyrimidines (Ia-d), upon treatment with NaNO_2 in aqueous HCl are not converted to pyrimido[4,5-b]thiadiazoles but rather to 4-carbo-methoxy-5-alkyl(aralkyl)thio-1,2,3-triazoles (IIa-d) as a result of a number of successive reactions:



This method was used to obtain the following crystalline aqueous alkali-insoluble compounds, for which the melting points in degrees Centigrade and yields in percent are given: IIa, 122-124 (chloroform-hexane), 71; IIb, 141-143 (benzene), 88.6; IIc, 119-120 (benzene-hexane), 97.4; IId, 179-180 (methanol-water), 100. The results of elementary analysis of II for C, H, N, and S were in agreement with the calculated values, while the data from the IR and PMR spectra confirm the proposed structure.

The observed transformation is probably a general property of diazonium salts obtained from substituted 5-aminopyrimidines, since it has been recently reported that some 5-diazuracils also are capable of undergoing conversion to 1,2,3-triazole derivatives [2].

LITERATURE CITED

1. E. C. Taylor and E. E. Garsia, *J. Org. Chem.*, **29**, 2121 (1964).
2. T. C. Thurber and L. B. Townsend, *J. Org. Chem.*, **41**, 1041 (1976).

S. Ordzhonikidze All-Union Scientific-Research Institute of Pharmaceutical Chemistry, Moscow 119021. Scientific-Research Institute of Pharmacy and Biochemistry, Czechoslovakian SSR, Prague. Translated from *Khimiya Geterotsiklicheskikh Soedinenii*, No. 10, p. 1426, October, 1982. Original article submitted January 27, 1982.