SOME CONVERSIONS OF 1,2,4-TRIAZOLYL-IMINO-DITHIOCARBONIC ACID DIMETHYL ESTERS

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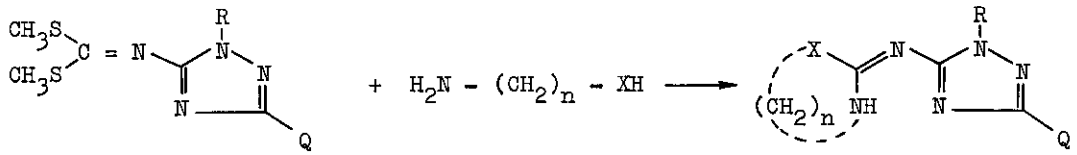
The reaction of (3-Q-1H-1,2,4-triazole-5-yl)-imino-dithiocarbonic acid dimethyl esters (1) synthetised recently (1) with alkylene-diamines (2) and ω-hydroxy-alkyl-amines (3) lead to the formation of the corresponding triazolyl-imino-imidazolidines (4, n=2), -tetrahydro-pyridines (4, n=3), -oxazolidines (5, n=2) and dihydro-4H-oxazines (5, n=3).



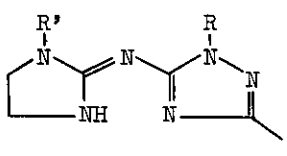
1, R= H, Ph, 2,6-di-Me-Ph
Q= SCH_3, morpholino

2, X= NH
3, X= O

n= 2,3

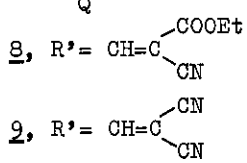
4, X= NH
5, X= O

The alkylation and acylataion of derivatives 4 obtained above lead to the formation of the corresponding alkyl (6) and acyl (7) derivatives, their reaction with ethoxymethylene-cyanoacetic acid esters and ethoxymethylene-malonic acid dinitrile yielded derivatives 8 and 9, while their reaction with ethyl acetoacetate lead to 10 type 1,2,4-triazolyl-imidazo(1,2-a)pyrimidinones.



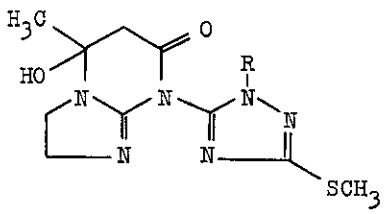
6, R'= CH_2COOEt, $CH(CH_3)COOEt$

7, R'= $COCH_3$



8, R'= $CH{=}C(COOEt)(CN)$

9, R'= $CH{=}C(CN)_2$



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Paper deals with the structure-determination of derivatives 4-10 based on their IR, UV, ^{1}H-NMR and ^{13}C-NMR spectroscopical data.

Reference:

(1) J. Reiter et al., "Synthesis and Elucidation of Structure of Two New Ring Systems". Paper presented on the 10th International Symposium on the Organic Chemistry of Sulphur, Bangor, 1982.