

THE REACTION OF 5-AMINO-1,2,4-TRIAZOLES WITH CYCLIC β -KETO ESTERS.
A NOVEL RING SYSTEM.

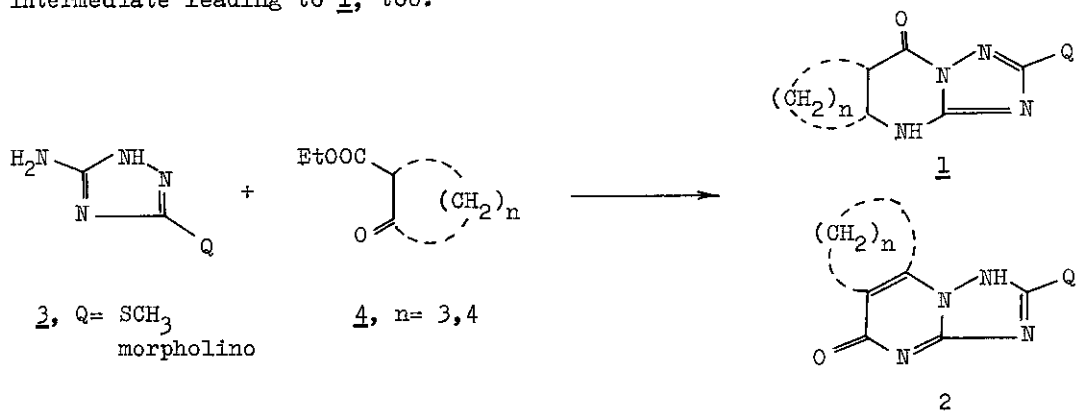
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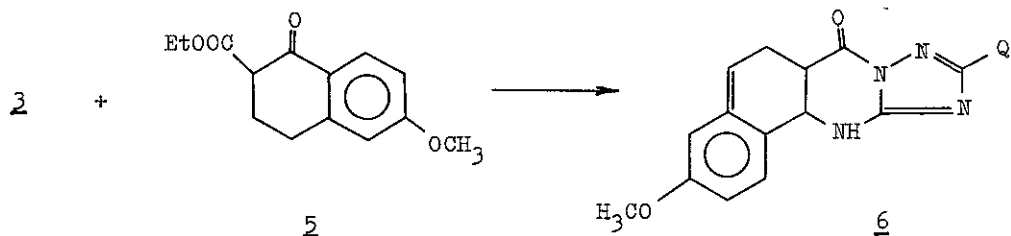
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The 5-amino-1,2,4-triazoles and ethyl acetoacetate in acetic acid were shown to give 1 type 1,2,4-triazolo(1,5-a)pyrimidin-5-ones, while the reaction of the above triazoles with ethyl β -ethoxy-crotonate in ethanol in the presence of an equivalent amount of sodium ethoxide lead to the formation of 2 type 1,2,4-triazolo(1,5-a)pyrimidin-7-ones (1).

In analogous reactions provided with cyclic β -keto-esters (4) in acetic acid we have isolated from the reaction mixture both, the 1 type 6,7-trimethylene-, or 6,7-tetramethylene-1,2,4-triazolo(1,5-a)pyrimidin-5-ones and the 2 type 5,6-trimethylene-, or 5,6-tetramethylene-1,2,4-triazolo(1,5-a)pyrimidine-7-ones. Providing these reactions in mild conditions it was possible to isolate the intermediate leading to 1, too.



Repeating the above reactions with 2-carboethoxy-6-methoxy-tetralone-1 (5) the corresponding benzo(h)-1,2,4-triazolo(5,1-b)quinazolines (6) were formed representing a novel ring system.



Reference:

(1) L.A. Williams, J. Chem. Soc. 1961, 3046