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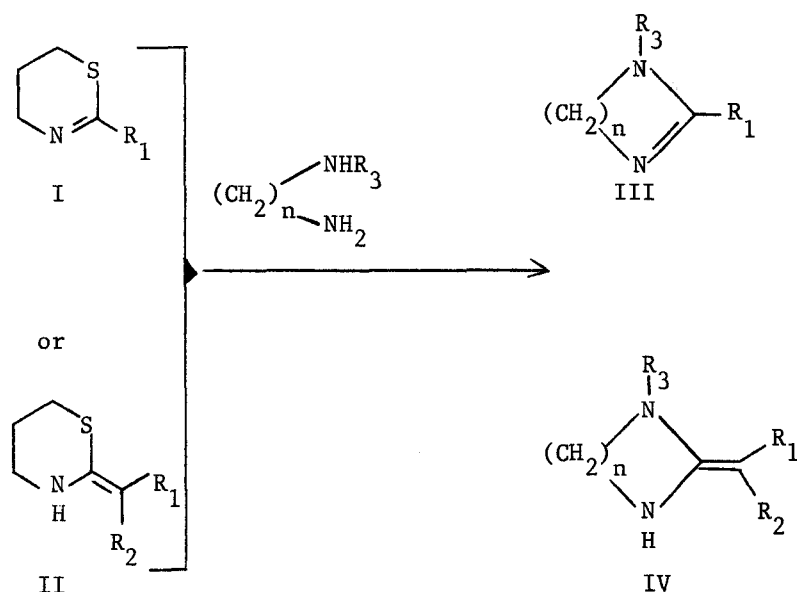
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SOME REACTIONS OF 1,3-THIAZINE DERIVATIVES WITH ALIPHATIC DIAMINES

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A wide range of 2-substituted-5,6-dihydro-4H-1,3-thiazines (I) and tetrahydro-2H-1,3-thiazines (II) have been found to undergo a facile ring transformation reaction with aliphatic diamines to form the corresponding dinitrogen heterocycles (III) and (IV).



$$n = 2, 3$$

$$R_3 = \text{H, Alkyl}$$

High yields are usually obtained by treating the thiazines with a slight excess of the diamine in refluxing ethanol and a surprising number of functional groups in the 2-substituent survive intact.

The advantages and limitations of the reaction will be discussed, along with some related discoveries in the area.