NOVEL METHOD FOR PREPARATION OF 6*H*-1,3-OXAZIN-6-ONES BY RETRODIENE REACTION

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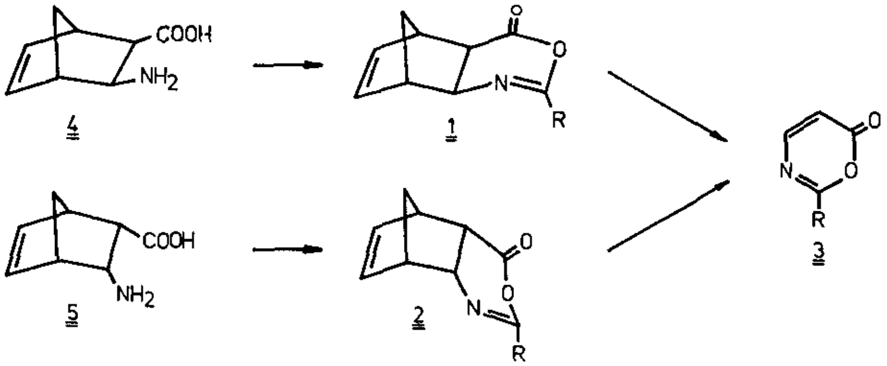
Diexo (1) and *diendo* (2) tricyclic 1,3-oxazin-4-ones furnished compounds 3 under unusually mild experimental conditions by retrodiene decomposition. This is a suitable method for the synthesis of 2-substituted 6*H*-1,3-oxazin-6-ones (3) (yields 55-62%). No simple way was previously known for the preparation of the above compounds.

1 and 2 were prepared by acylation and cyclization from the amino acids 4 and 5; 4 was obtained by the reduction and hydrolysis of the adduct of norbornadiene and chlorosulfonyl isocyanate, and 5 from the adduct of cyclopentadiene and maleic anhydride by ammonolysis and Hofmann degradation.

The retro Diels-Alder reaction of 1 and 2 takes place either by fusion at their melting points, or even by boiling in an indifferent solvent (toluene, chlorobenzene).



$R = C_6H_5,\ C_6H_4Cl(p),\ C_6H_4CH_3(p),\ C_6H_3Cl_2(m,p)$

In contrast with other retrodiene reactions, which usually require special apparatus and more vigorous circumstances, only a few procedures are known for the preparation of heterocycles under similarly mild conditions. The mild decomposition in our case can be explained by the formation of heteroaromatic compounds.