cycloaddition reactions

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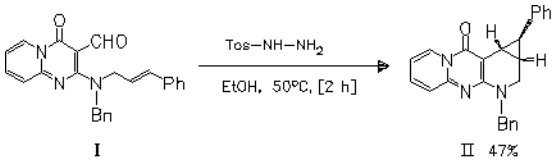
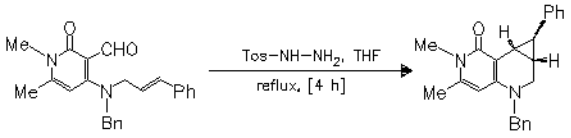
23 - 053

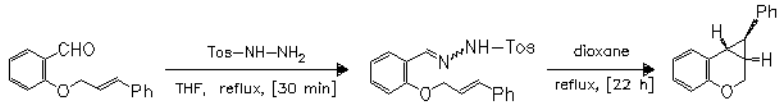
Intramolecular 1,3-Dipolar Cycloaddition at the Periphery of Heterocyclic Systems. Part 4. A Facile Cyclopropane Ring Formation by the Thermal Reaction of 2-(Alk-2-enylamino)-4-oxo-4H-pyrido(1,2-a) pyrimidine-3-carboxaldehydes with Tosylhydrazine. — The thermal reaction of heteroaromatic aldehydes bearing a propenylamino moiety ortho to the aldehyde group such as (I) or (III) with tosylhydrazine generates the corresponding hydrazones which are rearranged and cleaved to the cyclopropanes (II) and (IV) diastereoselectively. Similar reaction of the salicylaldehyde derivative (V) allows the isolation of the primary hydrazone (VI). — (SUN, B.; ADACHI, K.; NOGUCHI, M.; Synthesis (1997) 1, 53-56; Dep. Appl. Chem., Fac. Eng., Yamaguchi Univ., Tokiwadai, Ube 755, Japan; EN)



I II 47%



III IV 87%



V VI 88% VII 50%