THE PHOTOCHEMISTRY OF KETO-IMINE COMPOUNDS

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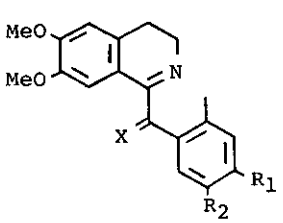
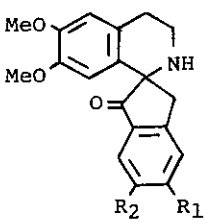
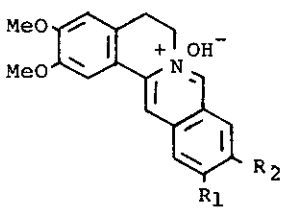
The photocatalysed enolisation process is one of the useful synthetic methods. Irradiation of (1) and (2) were investigated.

Irradiation of (1)hydrochloride in methanol for 4hr gave the spirobenzylisoquinoline (2). However,irradiation of free base (1) in methanol for 8hr afforded the berberinium hydroxide (3). Similarly,photolysis of (5)hydrochloride in methanol gave spirobenzyl-β-carboline (6). Also, photolysis of free base (5) in methanol afforded the decadehydroyohimbane,which was subjected to sodium borohydride reduction to give hexadehydroyohimbane.

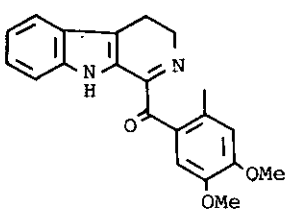
The photochemistry of (4) is now in progress.

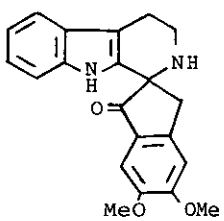


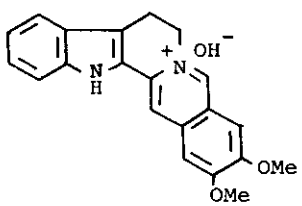




(1) X=O, R_1=R_2=H or R_1=Me, R=H (2) (3)
(4) X=CH_2, R_1=R_2=OMe







(5) (6) (7)