

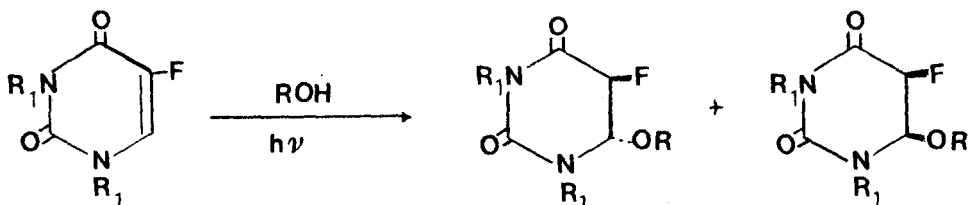
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REGIO AND STEREOSPECIFICITY OF SOLVENT PHOTOADDITION TO
5-FLUOROURACIL AND 1,3-DIMETHYL-5-FLUOROURACIL

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Irradiation of 1,3-dimethyl-5-fluorouracil in methanol, ethanol, water, and acetic acid, and 5-fluorouracil in water at 253.7nm resulted in the formation of two addition products. Regiospecificity was in all cases the same, with functionalization at position 6, while the stereochemistry of addition depended on the solvent. In water preferential trans addition proceeded, while in acetic acid cis addition was predominant. Photoconversion of starting material was also twofold increased in acetic acid, compared to that in water.



$R = H, CH_3, CH_2CH_3, CH_3CO$

$R_1 = H, CH_3$