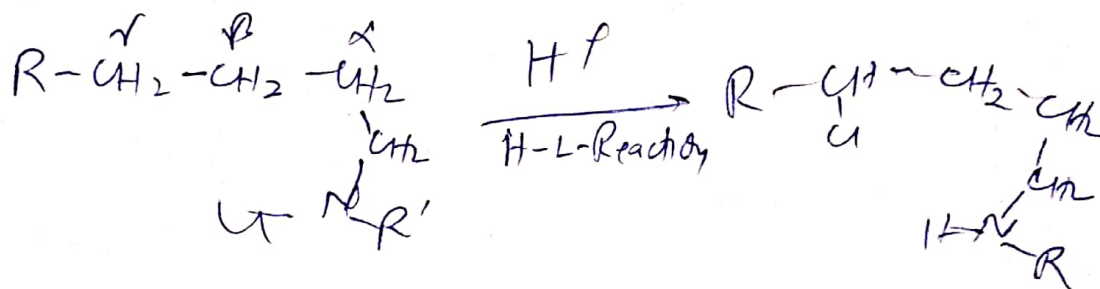


Photochemistry of Unsaturated System

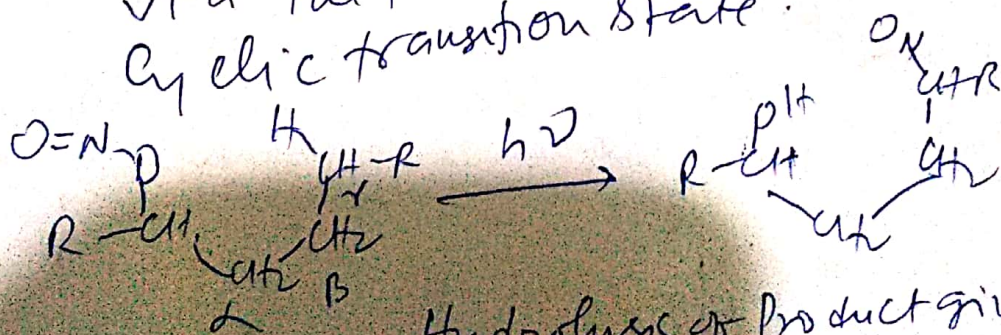
Barton Reaction  $\Rightarrow$  It is a

Photochemical reaction. Its mechanism is similar to Hofmann-Löffler reaction in which exchange abstraction of  $\gamma$ -H by Cl takes place via radical mechanism

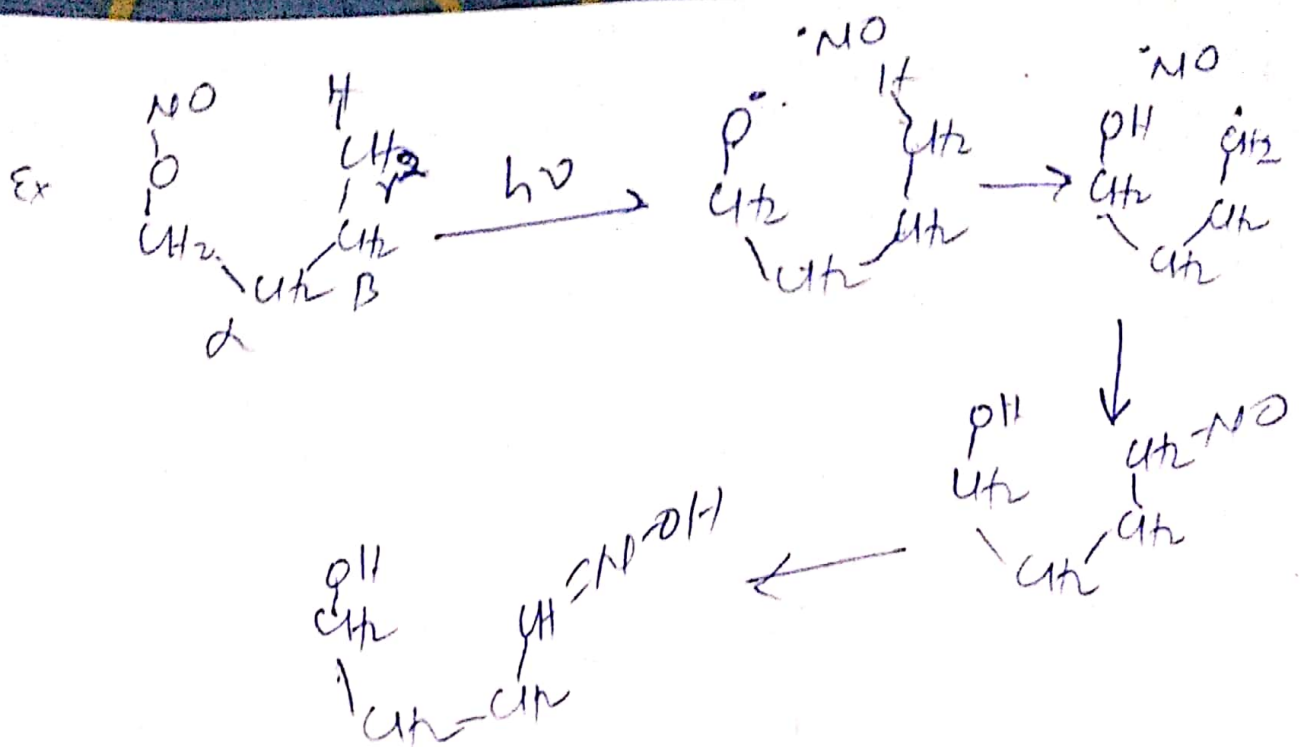


On the similar manner; Barton reaction a type of photochemical reaction in which the photolysis of nitrite ester results in conversion of nitrite group to the -OH group and nitrosation of methyl or alkyl group at  $\gamma$ -position

This reaction follows free radical path via the formation of six membered cyclic transition state.



Hydrolysis of product gives aldehyde or ketone



In this reaction six member transition state is necessary for  $\gamma$ -hydrogen abstraction

