

28 SYNTHETIC REAGENTS

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ORGANIC CHEMISTRY , PAPER-VII

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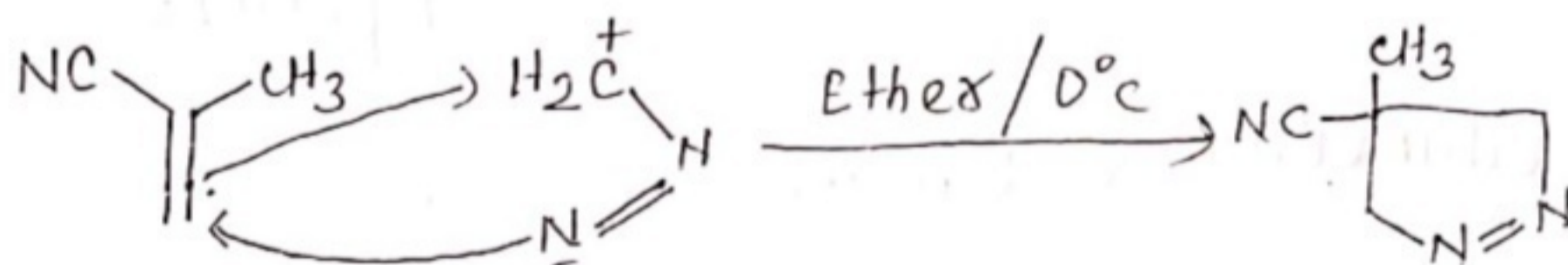
Topic : Diazomethane

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ADDITION REACTIONS

* The 1,3-dipolar addition reactions of CH_2N_2 with a wide variety of compounds containing ethylenic and acetylenic bonds give heterocyclic compounds in high yields.

Diazomethane, For example, reacts with α -methyl acrylonitrile to give pyrazoline.

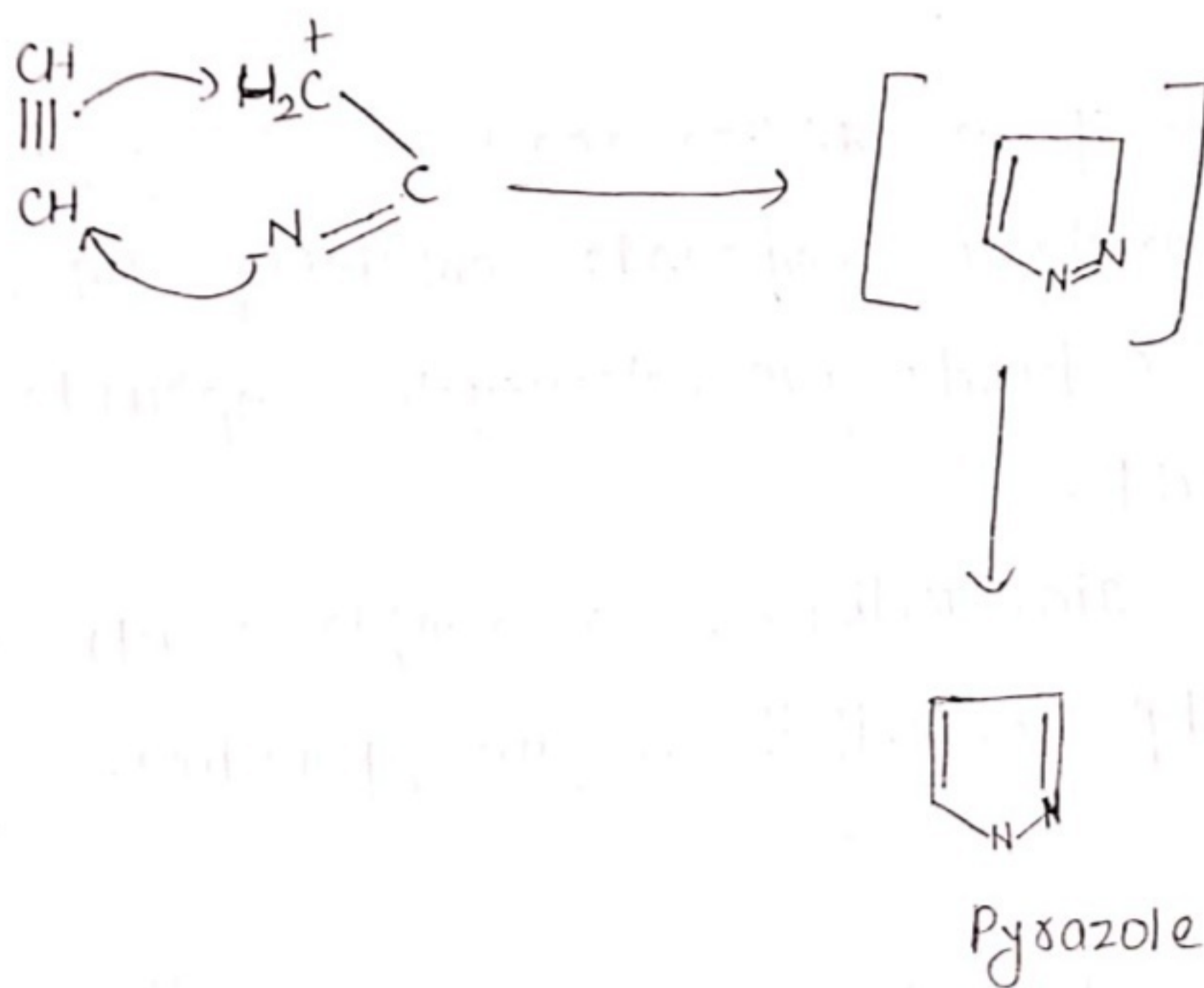


* A concerted, $[3+2]$ cycloaddition mechanism for the formation of pyrazolines from diazomethane is suggested and the reaction is stereoselective.

By-Dr.Rinky

* Addition of diazomethane on to acetylenic compounds gives pyrazole derivatives.

* Pyrazole it self may be obtained from acetylene and diazomethane.



Miscellaneous Reactions

Heat or light generate carbene from diazomethane through loss of nitrogen which can add rapidly to alkenes to give cyclopropane derivatives.

