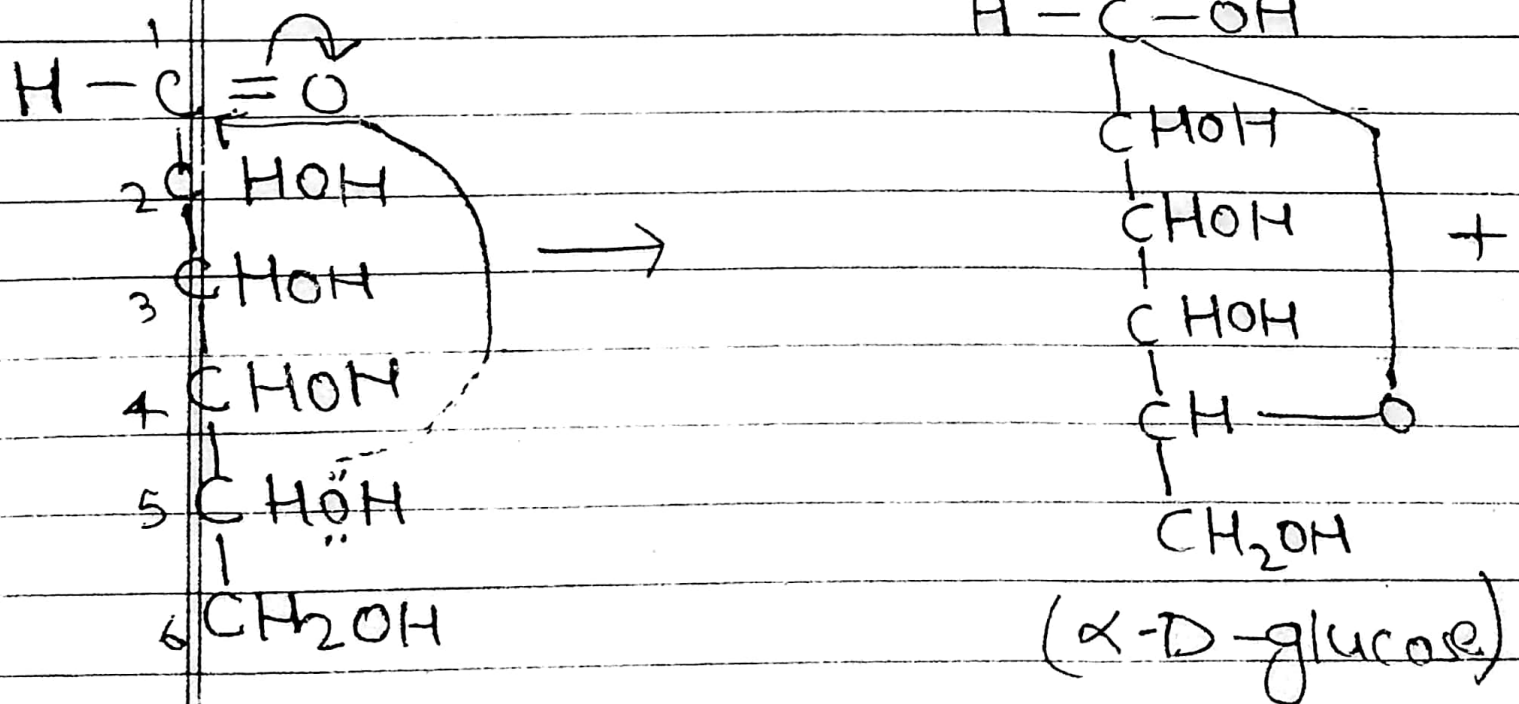
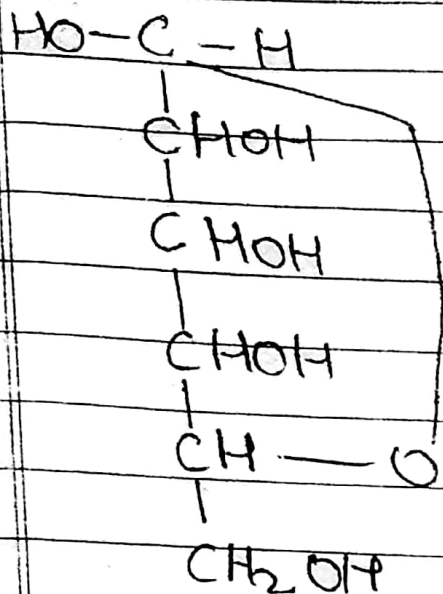


M.H.Khan D2(H) 24-4-20 Topic →
Mutarotation (org) ANKIT
Carbohydrate Page No. _____
Date _____

Mutarotation

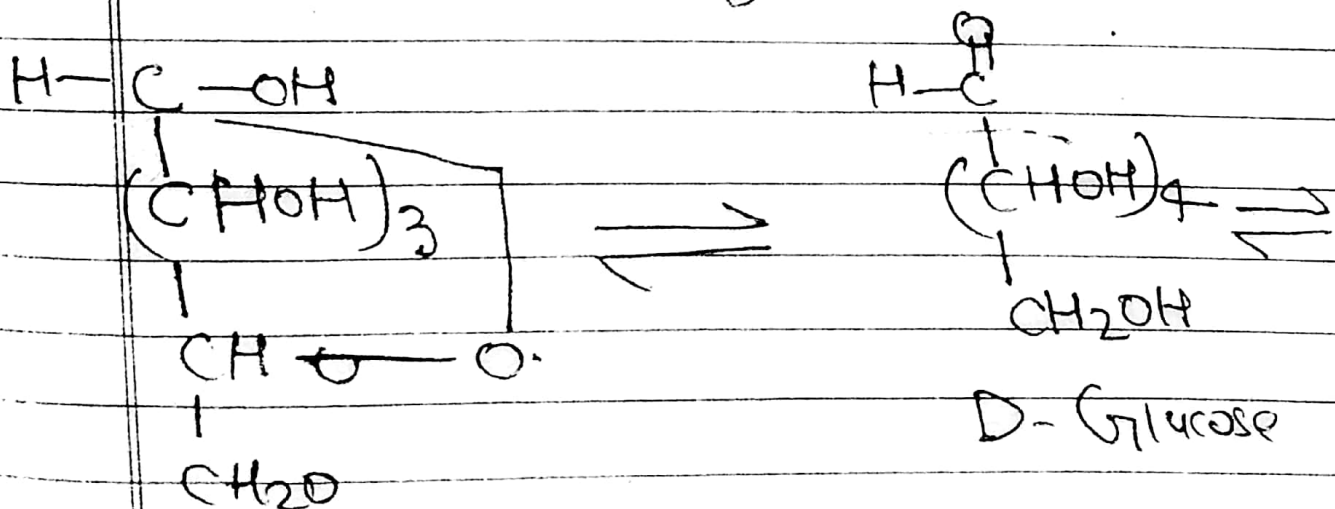
Change in optical rotation of a solution either from α or β glucose with a constant value is obtained is called Mutarotation. Glucose forms the hemiacetal between the CHO and OH group on the fifth carbon. In this process fifth carbon becomes asymmetric giving two isomers.





(β -D-glucose)

The mutarotation occurs because of the slow inter conversion of α -D-glucose and β -D-glucose via the open chain form until equilibrium is established giving a constant specific rotation.



D-glucose

α -D glucose

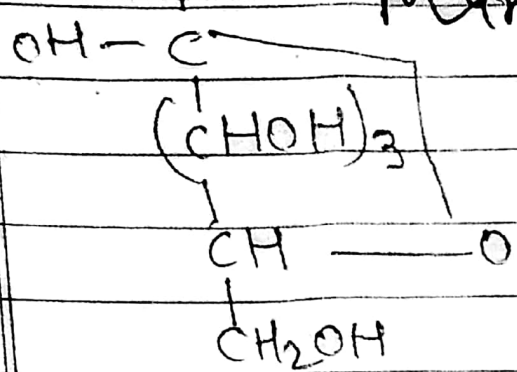
(specific rotation $+112^\circ$)

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Topic $\rightarrow$ Walden Inversion (org)

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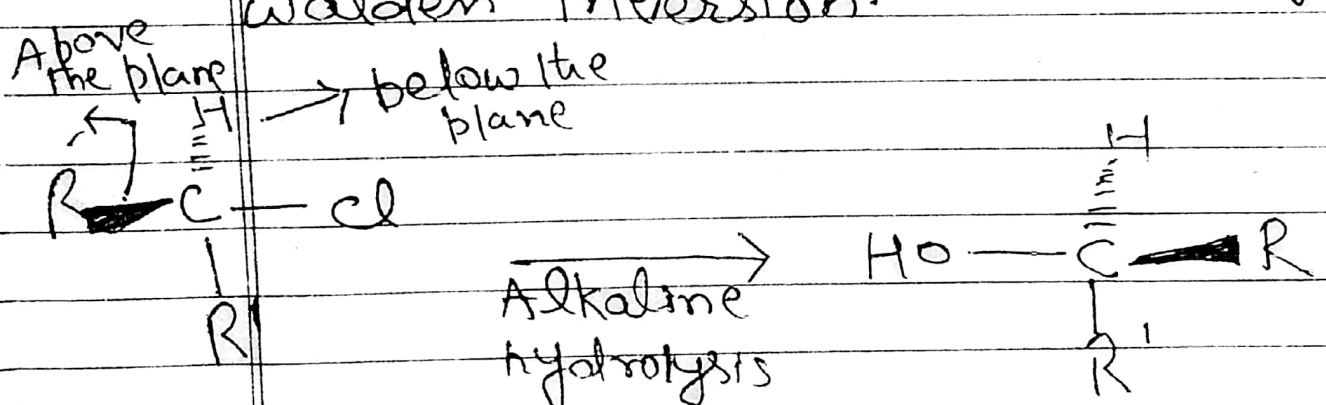


B-D-glucose
(specific rotation -140°)

* Walden Inversion

The ~~open~~ change in configuration of an umbrella inside out in a high wind is called inversion or Walden inversion.

Generally alkyl halide undergo walden inversion.



Mech:

