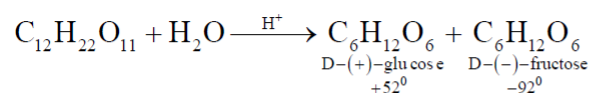


For 'invert sugar', the correct statement(s) is(are)

(Given: specific rotations of (+)-sucrose, (+)-maltose, L-(-)-glucose and L-(+)-fructose in aqueous solution are $+66^\circ$, $+140^\circ$, -52° and $+92^\circ$, respectively)

- (A) 'invert sugar' is prepared by acid catalyzed hydrolysis of maltose
- (B) 'invert sugar' is an equimolar mixture of D-(+)-glucose and D-(-)-fructose
- (C) specific rotation of 'invert sugar' is -20°
- (D) on reaction with Br_2 water, 'invert sugar' forms saccharic acid as one of the products

Soln. Invert sugar is the equimolar mixture of D-(+)-glucose and D-(-)-fructose prepared by the hydrolysis of sucrose in acidic medium. So, (A) is incorrect and (B) is correct.



$$\alpha_{\text{invert sugar}} = \frac{+52^\circ - 92^\circ}{2} = -20^\circ \text{ (average is taken as both monomers are one mole each)}$$

Reaction with Br_2 water forms gluconic acid not glucaric (saccharic) acid. Thus (D) is incorrect.

So the correct options are B and C.