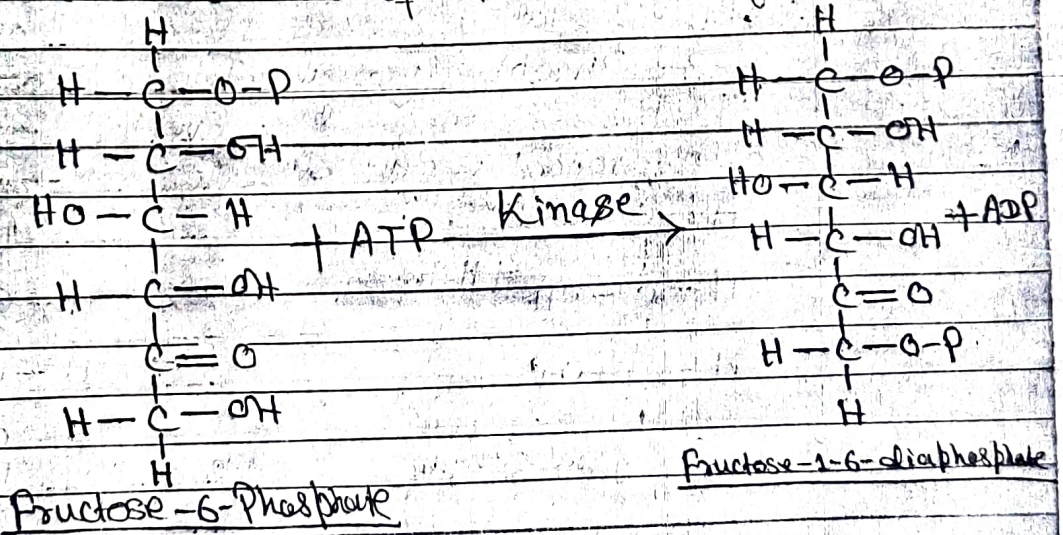
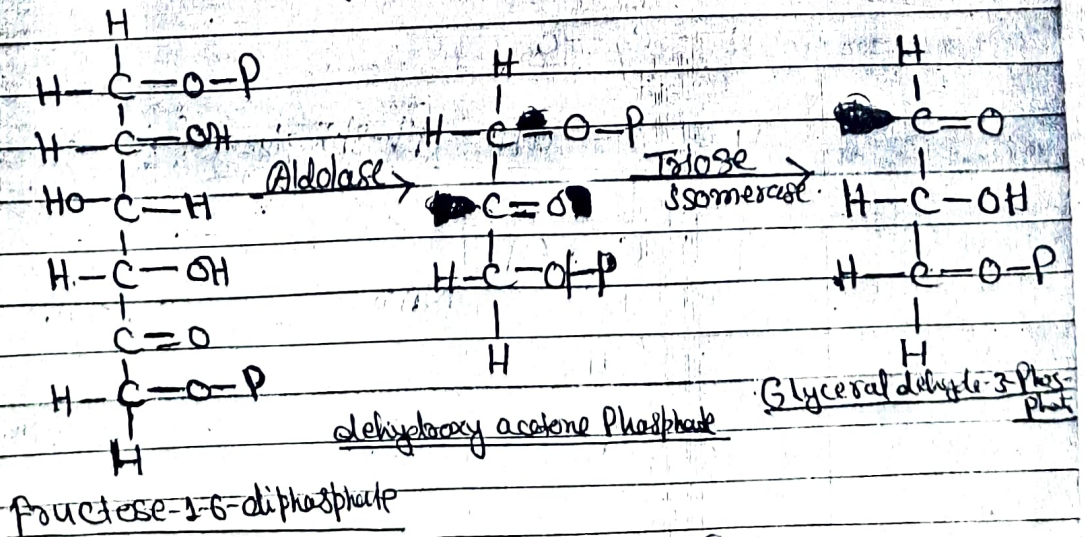


[3] Second Phosphorylation: $\rightarrow$ Fructose-6-Phosphate is converted into Fructose-1,6-diphosphate in the presence of enzyme Kinase. Here one molecule of ATP is required.



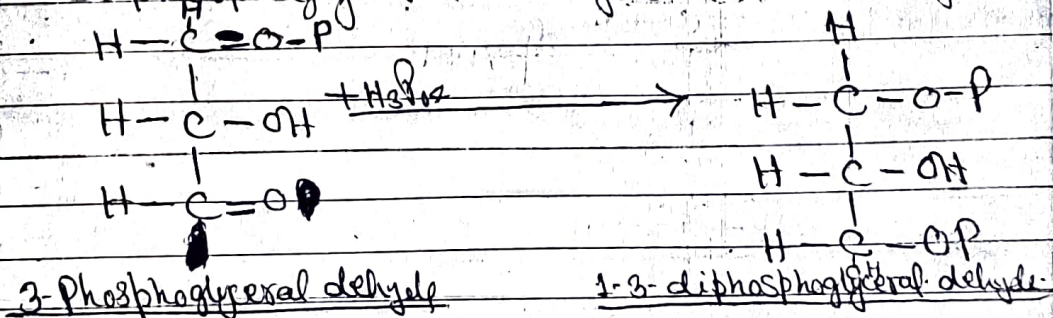
[4] Cleavage: $\rightarrow$ Fructose-1,6-diphosphate in the presence of enzyme Aldolase is converted into Dihydroxy acetone phosphate and Glyceraldehyde-3-Phosphate. This Dihydroxy acetone phosphate is converted into Glyceraldehyde-3-Phosphate in the presence of enzyme Triose-isomerase.



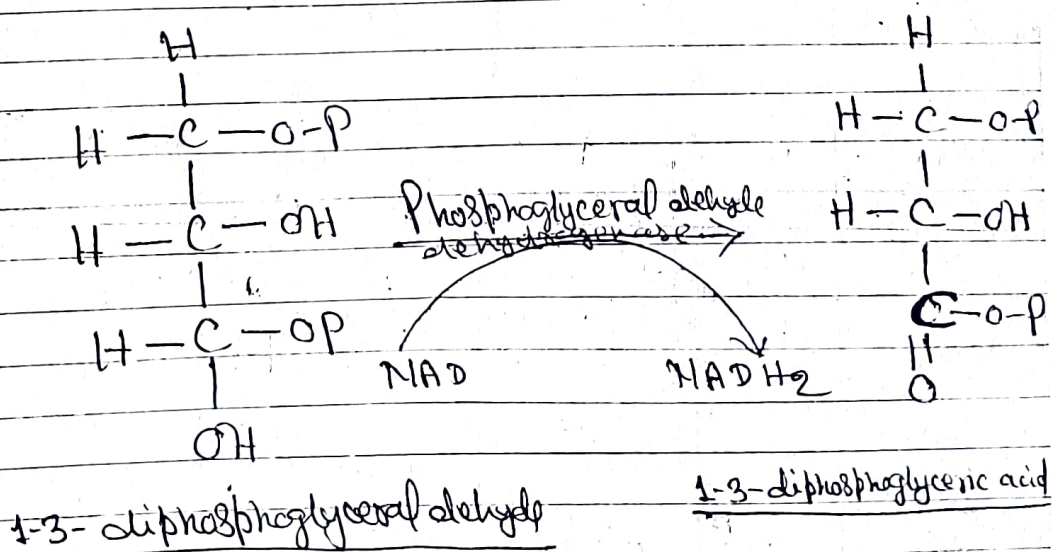
Aldolase was first purified and studied by Warburg and later identified by Cori.

[B] OXIDATIVE PHASE $\Rightarrow$ In this phase high energy phosphate bond is formed which stored energy.

[5] Phosphorylation & oxidative dehydrogenation:-
3-Phosphoglyceraldehyde reacts with Phosphoric acid & converted into 1-3-diphosphoglyceraldehyde in -nce of enzyme.

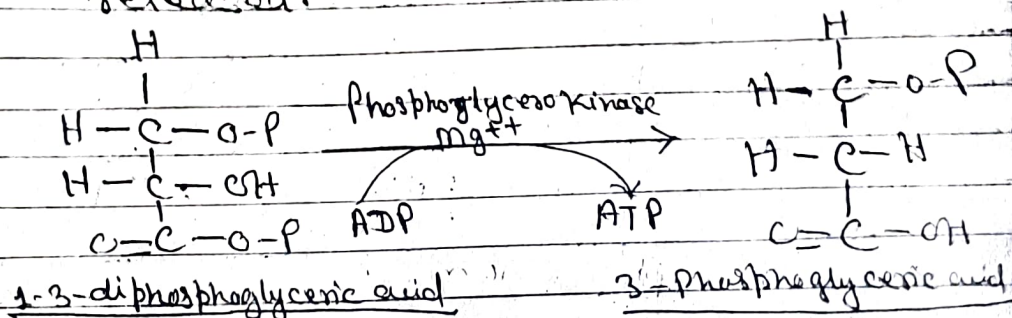


Now 1-3-diphosphoglyceraldehyde is oxidised in +nce of Phosphoglyceraldehyde dehydrogenase & converted into 1-3-diphosphoglyceric acid. Here NAD is required & NADH₂ is formed.

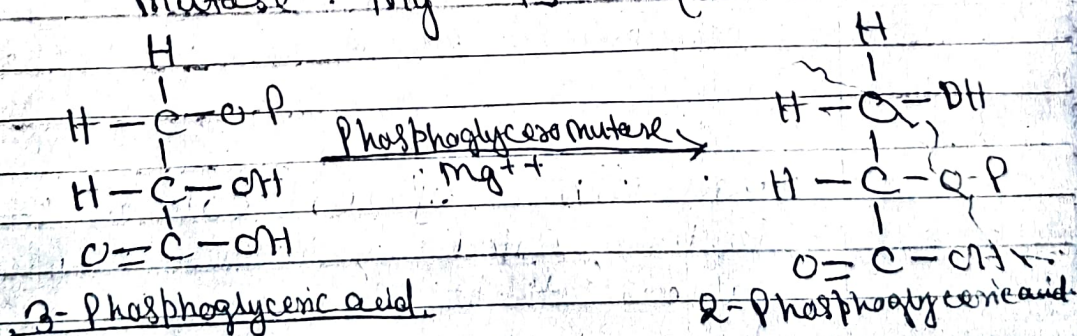


Warburg and Christian obtained this enzyme from yeast.

[6] ATP-Generation $\rightarrow$ 1,3-diphosphoglyceric acid converted into 3-Phosphoglyceric acid in the presence of enzyme Phosphoglycerate-Kinase. Here ATP is released.



[7] Isomerization $\rightarrow$ 3-Phosphoglyceric acid converted into 2-Phosphoglyceric acid in the presence of enzyme Phosphoglycerate-mutase. Mg^{++} is required here.



[8] Dehydration $\rightarrow$ 2-Phosphoglyceric acid converted into Phospho-enol-Pyruvic acid in the presence of enzyme Enolase & Mg^{++} . Here one mole of H_2O is released.

