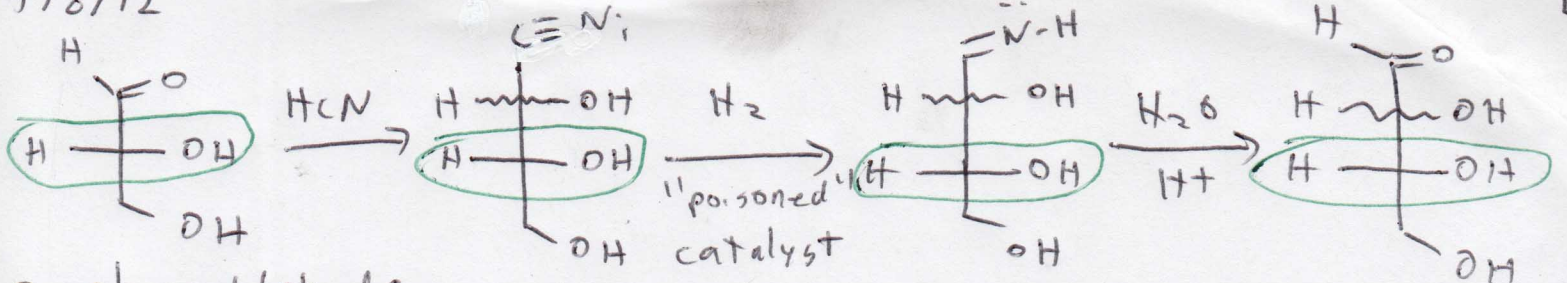
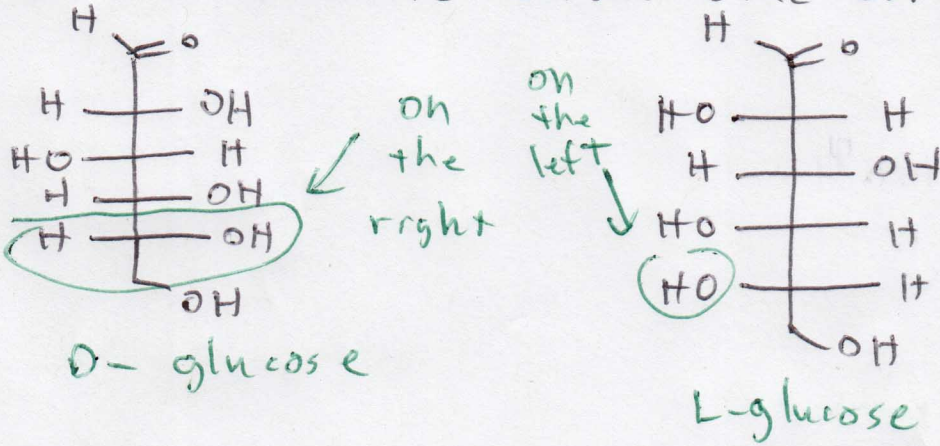


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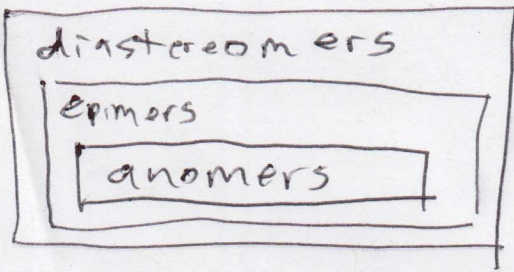
D-glyceraldehyde

The relative configuration of sugars and derivatives (D or L) is determined by the stereocenter furthest from the anomeric carbon (the carbonyl carbon).

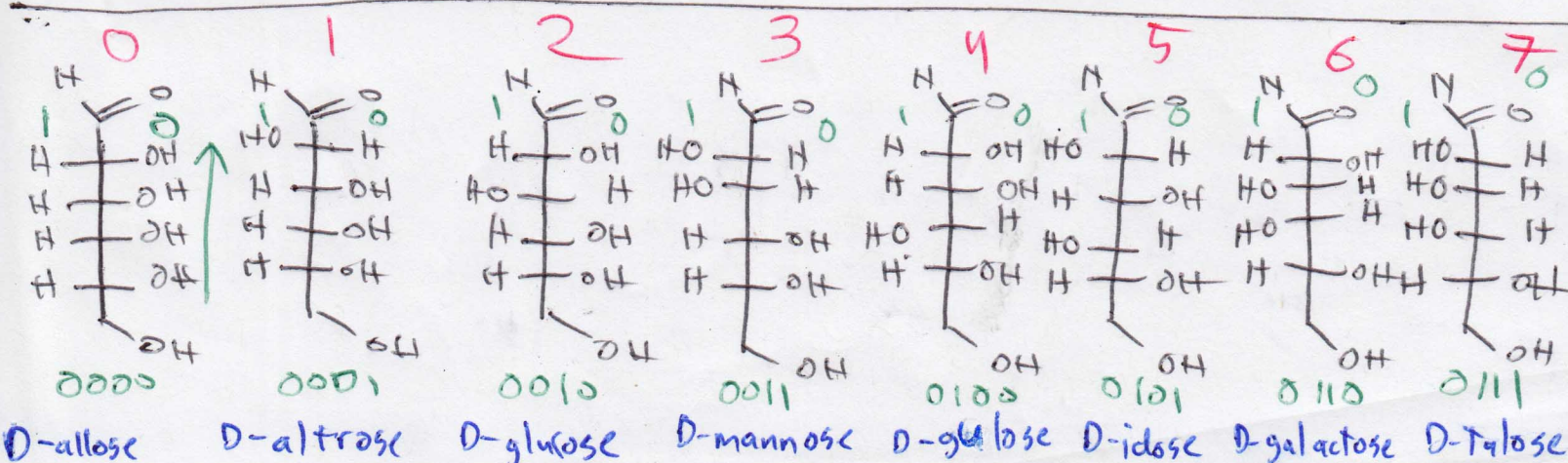


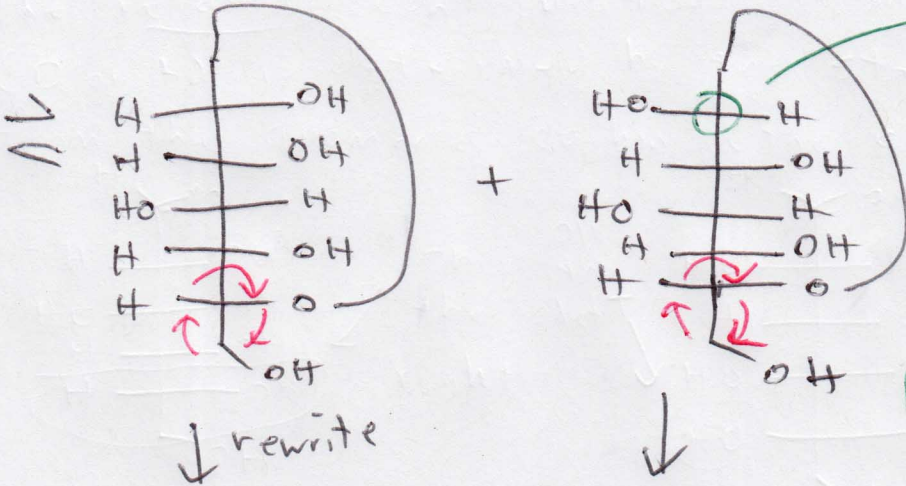
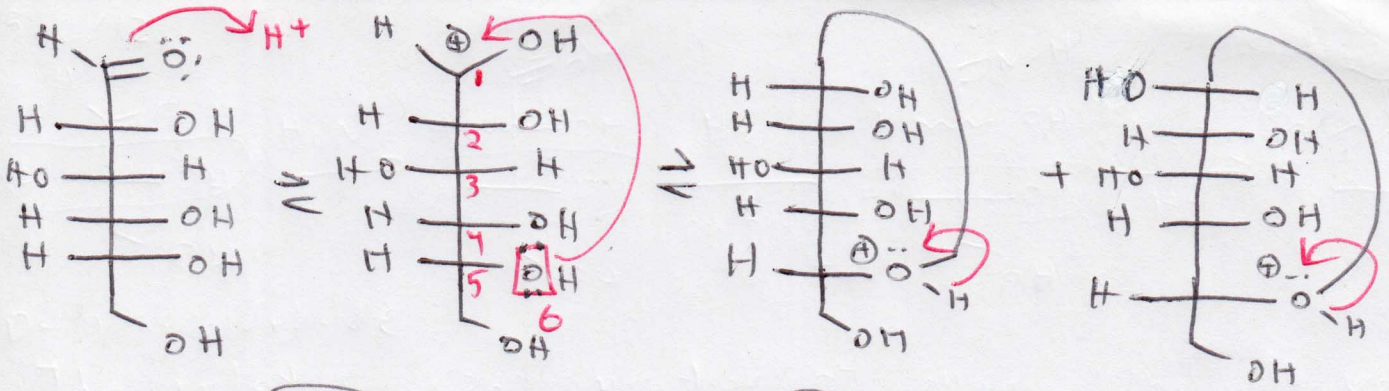
enantiomers - non-identical mirror-image stereoisomers
 - all stereocenters are inverted

diastereomers - non-identical non-mirror-image stereoisomers
 - some, not all, stereocenters are inverted

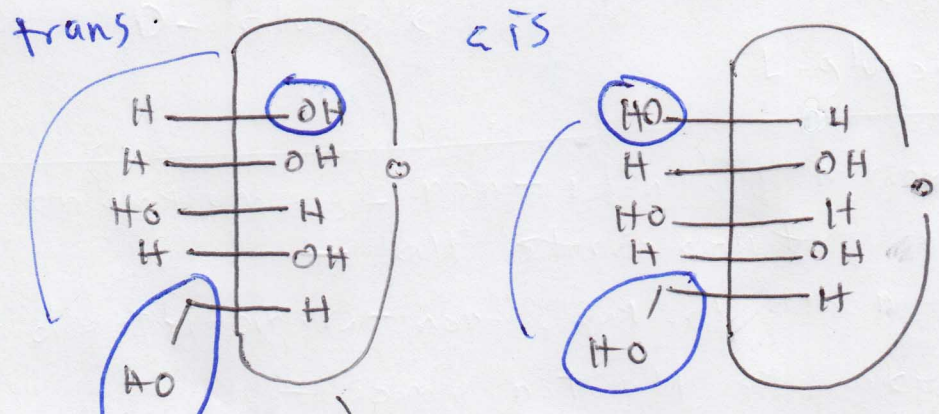


epimer - type of diastereomer in which only one stereocenter (out of two or more) is different
 anomer - type of epimer that only appears in carbohydrates





When a sugar cyclizes, a new stereocenter is formed @ the carbon that was part of the carbonyl. This cyclization produces two epimers \rightarrow anomers



α β Haworth Projection

