

Glossary

1. **Chiral carbon atom** - An asymmetric carbon atom also termed chiral carbon is a carbon atom that is attached to four different types of atoms or groups of atoms.
2. **Carbonyl group** - A carbonyl group is a chemically organic functional group composed of a carbon atom double-bonded to an oxygen atom [C=O]. The simplest carbonyl groups are aldehydes and ketones.
3. **Hydrolysis** - The chemical decomposition in which a compound is split into other compounds by reacting with water is termed hydrolysis. The reaction mainly occurs between an ion and water molecule.
4. **Isomers** - An isomer is a molecule with the same molecular formula as another molecule but possess a different chemical structure.
5. **Hemiacetal** - Any compounds characterized by the group C(OH)(OR) where R is an alkyl group and usually formed as intermediates in the preparation of acetals from aldehydes or ketones.
6. **Polymerization** - A process of reacting monomer molecules together in a chemical reaction to form polymer chains.
7. **Anomer**- They are diastereoisomers of cyclic forms of sugars or similar molecules differing in the configuration at the anomeric carbon (C-1 atom of an aldose or the C-2 atom of a 2-ketose). The cyclic forms of carbohydrates can exist in two forms, α - and β - based on the position of the substituent at the anomeric center.
8. **Reducing sugar** - A reducing sugar is any sugar that is capable of acting as a reducing agent because it has a free aldehyde group or a free ketone group.
9. **Intestinal flora**- also known as gut flora, the intestinal flora is the complex community of microorganisms that live in the digestive tracts of humans and other animals.
10. **Non enzymatic browning** - A complex of chemical reactions leading to the production of brown pigments. It is the process of removal of water from a sugar followed by isomerization and polymerisation steps. The Maillard reaction is a chemical reaction between an amino acid and a reducing sugar.
11. **Gel** - A colloid in which the disperse phase has combined with the dispersion medium to produce a semisolid material.

12. **Fisher projection** - a standard method for the illustration of the stereochemistry of molecules with several asymmetric carbons. It is particularly used for eliciting the structure of carbohydrates and amino acids.
13. **Dietary fiber** - Dietary fiber or roughage is the indigestible portion of food derived from plants.
14. **Hygroscopic**- A hygroscopic substance is one that readily attracts water from its surroundings, through either absorption or adsorption
15. **Haworth projections** - A Haworth projection is a common way of writing a structural formula to represent the cyclic structure of monosaccharides.