Glossary

1. **Relative humidity**
    a. Relative humidity (RH) is the ratio of the partial pressure of water vapour to the equilibrium vapour pressure of water at a given temperature
2. **Water activity**
    a. It is the partial vapour pressure of water in a substance divided by the standard state partial vapour pressure of water.
3. **Sorption/Adsorption**
    a. Adsorption is the adhesion of atoms, ions, or molecules from a gas, liquid, or dissolved solid to a surface.
4. **Tetrahedral**
    a. In a molecular geometry, a central atom is located at the center with four substituents that are located at the corners of a tetrahedron. For example: a carbon atom with four attachments with the overall shape resembling a pyramid
5. **Partial pressure**
    a. The partial pressure is the pressure the gas if the gas were in the same volume and temperature by itself among a mixture of gases.
6. **Osmotic pressure**
    a. It is the minimum pressure which needs to be applied to a solution to prevent the inward flow of water across a semipermeable membrane.
7. **Vapour pressure**
    a. Force exerted by the gas or vapor released by a liquid or solid substance in a closed container or space
8. **Hygroscopic**
    a. Hygroscopy is the phenomenon of attracting and holding water molecules from the surrounding, usually at normal or room temperature, environment achieved by adsorption and absorption. Substances with this nature are termed ‘hygroscopic’.
9. **Rancidity**

a. Rancidity is the end process of rancidification, wherea substance to become rancid possessing unpleasant smell or taste. it refers to the spoilage of a food in such a way that it becomes undesirable

10. Gram negative bacteria

a. They are bacteria that do not retain the crystal violet dye in the Gram staining procedure and thus appear red or pink under a microscope.

11. Oxidation

a. Oxidation refers to the loss of electrons or an increase in oxidation state by a molecule, atom, or ion. When chemicals in food are exposed to oxygen in the air, their chemical composition changes and they begin to break down.

12. Maillard reaction

a. The Maillard reaction is a chemical reaction between an amino acid and a reducing sugar, usually requiring the addition of heat. It is one of the forms of non-enzymatic browning.

13. Hydrolysis

a. It is a chemical process in which a molecule is cleaved into two parts by the addition of a molecule of water. The reaction mainly occurs between an ion and water molecules and often changes the pH of a solution.

14. Free radicals

a. Free radicals are atoms or groups of atoms with an odd (unpaired) number of electrons and can be formed when oxygen interacts with certain molecules. Once formed these highly reactive radicals can start a chain reaction of further free radical synthesis.

15. Syneresis

a. Syneresis is the expulsion of a liquid from a gel-like substance. It is sometimes a desired result, as in gel filtration. Often it is undesired, such as when the liquid seeps out of pie filling or form on the top of yogurt.