



Glossary

x-ray diffraction: The scattering of x-rays by crystal atoms, producing a **diffraction** pattern that yields information about the structure of the crystal.

Aliphatic: Relating to or denoting organic compounds in which carbon atoms form open chains (as in the alkanes), not aromatic rings.

Alkaline solution: A solution that contains a larger concentration of OH^- ions than pure water.

Amphoteric: an **amphoteric** species is a molecule or ion that can **react** as an acid as well as a base.

Antibiotics: A medicine (such as penicillin or its derivatives) that inhibits the growth of or destroys microorganisms

Aromatic: that contains one or more benzene rings that are characteristic of the benzene series of organic compounds

Biological value: Biological value (BV) is a measure of the proportion of absorbed protein from a food which becomes incorporated into the proteins of the organism's body. It summarizes how readily the broken down protein can be used in protein synthesis in the cells of the organism.

Chiral: The term chiral describes an object, especially a molecule, which has or produces a non-superimposeable mirror image of itself.

Enantiomers: Each of a pair of molecules that are mirror images of each other.

Eukaryotic organisms: Organisms that have cells with nuclei are classified as **eukaryotes** (meaning "true nucleus")

Food Fortification: Food fortification or **enrichment** is the process of adding micronutrients (essential trace elements and vitamins) to food. It can be purely a commercial choice to provide extra nutrients in a food, or sometimes it is a public health policy which aims to reduce numbers of people with



dietary deficiencies in a population.

Heterocyclic: Of or relating to a compound containing a closed ring structure made of more than one kind of atom.

Hydrophilic: Having an affinity for water; readily absorbing or dissolving in water.

Hydrophobic: Repelling, tending not to combine with, or incapable of dissolving in water.

Isoelectric Point. The pH at which a protein carries no net charge. Below the isoelectric point proteins carry a net positive charge, above it a net negative charge.

Macromolecules: A very large molecule, such as a polymer or protein, consisting of many smaller structural units linked together.

Maillard reaction: is a form of nonenzymatic browning. It results from a chemical reaction between an amino acid and reducing sugar, usually requiring heat.

Mutagenic: An agent, such as a chemical, ultraviolet light, or a radioactive element capable of inducing mutation (used mainly of extracellular factors such as X-rays or chemical pollution).

Proton: A stable subatomic particle occurring in all atomic nuclei, with a positive electric charge equal in magnitude to that of an electron.

Stereoisomers: Each of two or more compounds differing only in the spatial arrangement of their atoms.

Tetrahedral: (tetrahedron) any polyhedron having four plane faces.

Zwitterions: A molecule or ion having separate positively and negatively charged groups