

to neutralize the free fatty acids present in one gram of substance.

Acid, weak An organic acid that does not totally dissociate in water.

Acidity function Any function that measures the thermodynamic hydron-accepting or donating capacity of a solvent system.

Acidifier An herb or substance that increases or imparts acidity, or lessens alkalinity, to the body fluids, especially the blood or the urine.

Acidimetry Quantitative estimation of total amount of acid in a sample by titrating it with standard base.

Acidophile A microorganism that has its optimum growth at pH between 0 and 5.5.

Acidosis An unusually increased concentration of acid in an organism; lowering of the pH of the blood below the normal of 7.4 due to an increase in acid metabolites.

Acne Chronic inflammatory condition of the sebaceous glands mainly involving the face, back and chest.

Acneiform Lesion that resembles acne.

Acoelomates Animals that do not have a coelom or body cavity, e.g. sponges and flatworms.

Acoustic It pertains to hearing.

Acquired immune deficiency syndrome (AIDS) An infectious disease/syndrome caused by the human immunodeficiency virus and is characterized by the loss of a normal immune response, followed by increased susceptibility to opportunistic infections and an increased risk of some cancers.

Acquired immunity A type of specific immunity that develops after exposure to a specific antigen or if the antibodies are transferred from one individual to another.

Acrid An herb or substance that has a hot biting taste, or causes heat and irritation when applied to the skin.

Acrodromous Palmate leaf venation, with two or more primary or strongly developed secondary veins running in convergent arches towards the apex.

Acromegaly Chronic disease that is characterized by enlarged face and hands due to the hypersecretion of the pituitary growth hormone.

Acropetal Developing upward from the base toward the apex.

ACTH Adrenocorticotrophic hormone; a hormone secreted by the pituitary gland to stimulate the adrenal glands to produce glucocorticoid hormones.

Actin The protein from which microfilaments are composed, forms the contractile filaments of sarcomeres in muscle cells.

Actinobacteria A group of gram-positive bacteria containing the actinomycetes and their high G 1 C relatives.

Actinocytic Stomata, with five or more somewhat radially enlarged or elongated subsidiary cells surrounding the guard cells.

Actinodromous Palmate leaf venation, with three or more primary veins arising from at or near the base, ascending or diverging, whether or not reaching the margin.

Actinomorphic Descriptive of a flower or set of flower parts which

angle relative to the stem circumference separating the points of origin of two successively initiated leaves.

Angstrom A unit of length equivalent to one hundred-millionth of a centimeter (one ten-thousandth of a micron) used particularly to specify radiation wavelengths.

Angular leaf spot Bacterial blight.

Angustiseptate Refers to a fruit flattened at right angles to the septum so the septum crosses the narrowest part of the ovary.

Aniline blue Stains the cellulosic tissues.

Aniline sulphate Stains the lignified cell walls to yellow colour.

Anion A negatively charged ion.

Anion exchange resin An ion exchange material that eliminates anions from solution by exchanging them with hydroxyl ions.

Anionotropic rearrangement (or anionotropy) A type of rearrangement in which the migrating group moves with its electron pair from one atom to another.

Aniso (prefix) Unequal.

Anisocytic Type of stomata, with three subsidiary cells, two large and one smaller, surrounding the guard cells.

Anisogamy Reproduction by motile gametes that vary in morphology or behaviour.

Anisophyllous Having leaves of very dissimilar sizes and/or shapes at the same node.

Anisotropy The property of molecules and materials to show differences in physical properties along different molecular axes of the substance.

Anneal The process by which the complementary base pairs in DNA strands combine.

Annealing Refers to a treatment process for steel. The metal is heated and held at a suitable temperature and then cooled at an appropriate rate for the purpose of reducing hardness, improving machinability, facilitating cold working, producing a desired microstructure, or obtaining desired mechanical, physical, or other properties.

Annelid A segmented worm.

Annotation Adding pertinent information such as gene coded for, amino acid sequence, or other commentary to the database entry of raw sequence of DNA bases.

Annual Plant that completes its life history within a year.

Annual rings Refer to layers of wood laid down each year by the vascular cambium of woody plants, mainly in trees. Xylem cells are being added to the circumference of the xylem tissue during the season of active growth in the vascular cambium. At the beginning of the growing season, the cells grow fast and are large, but as the season progresses towards the dormant period fewer smaller cells are produced and growth finally stops as the plant becomes dormant. The difference in size of the xylem cells laid down at the start and later in the growing season forms a line within the wood marking the boundary of an annual ring. The size of the xylem cells is also affected by the growing conditions and so changes in the width of annual rings can indicate changes in the climate.

Bilocular Having two cavities.

Binary fission It is the method by which bacteria reproduce.

Binate Borne in pairs, e.g. the two leaflets of compound leaves.

Binders Binders and adhesives are added in either dry or liquid form to promote granulation or to promote cohesive compacts during direct compression.

Binding affinity It is a measure of the strength of the attraction and 'sticking power' between a protein (receptor) and its ligand (the molecule that binds to it).

Binding site A particular region or atom in a molecular unit, which is capable of entering into a stabilizing interaction with another molecular unit.

Binomial sampling The sampling method in which only the presence or absence of members of the population being sampled (such as an insect pest) on a sample unit (such as a leaf) is recorded. Does not concerns about counting the numbers of individuals.

Binomial system of nomenclature

It is a system of taxonomy developed by Linnaeus in the early eighteenth century. In this system, each species of plant and animal receives a two-term name, the first term is the genus, and the second name is the species.

Binucleate Refers to the pollen grains in which the male gametophyte has two nuclei when shed from the anther.

Bioassay A procedure for determining the concentration or biological activity of a substance by measuring its effect on an organism or tissue compared with a reference standard.

Bioavailability The rate and extent at which drug is absorbed by the body when introduced in a given dosage form.

Biocatalyst It is a catalyst of biological origin, typically an enzyme.

Biochemical cycle Refers to the flow of an element through the living tissue and physical environment of an ecosystem, e.g. the carbon, hydrogen, oxygen, nitrogen, sulfur, and phosphorus cycles.

Biochemical reactions It is a specific chemical process occurring in living things.

Biochemistry Chemical processes associated with living things are called biochemistry.

Biocide An agent that kills all pathogenic and non-pathogenic living organisms, including spores. It is more general than bactericide.

Bioconjugates Molecular species are produced by living systems of biological origin when it is composed of two parts of different origins.

Bioconversion The change of one substance to another by biological means. One example is fermentation of sugars to alcohols, which is catalyzed by yeasts.

Biodegradable Any material that can be broken down by biological action.

Biodegradation Refers to the breaking down of a chemical by organisms in the environment.

Biodiversity It is the variety of life forms on earth. It includes genetic diversity and the concepts of species and ecological diversity as well as the ecological processes of which they are a part. The word

Cata Refers to the apertures of pollen grains, situated at or towards the proximal pole, a very rare arrangement.

Catabolic reactions Reactions in cells in which existing chemical bonds are broken and molecules are broken down.

Catabolism The intracellular phase of metabolism involved in the energy-yielding degradation of nutrient molecules (e.g. glucose to CO_2 and H_2O) and the waste products are called catabolites.

Catalase It is an enzyme that catalyzes the decomposition of hydrogen peroxide into oxygen and water.

Catalyst Refers to a compound that increases the rate of a chemical reaction without being consumed or changed. In the biosciences, the term enzyme is used and enzymes catalyze biological reactions.

Cataphyll Refers to any rudimentary leaf, as a bud scale, prior to the true foliage leaves.

Catarrh Refers to inflammation of a mucous membrane, particularly of the respiratory tract.

Caterpillar The larva of a butterfly, moth, sawfly, or scorpionfly.

Cathartic Any substance that has a strong laxative effect that causes or hastens an evacuation of the bowels.

Cathode Refers to electrode where electrons are gained (reduction) in redox reactions.

Cation It is a positively charged particle or ion.

Cation exchange The displacement of one positively charged particle by another on a cation-exchange material.

Cation exchange resin It is an ion exchange resin that removes positively charged ions (cations) by exchanging them for hydrogen ions.

Catkin Refers to a spike-like cluster of unisexual flowers.

Cauda A process resembles tail.

Caudate Refers to an appendage at the apex of a leaf.

Cauline Refers to leaves, borne on an aerial stem, generally separated by elongated internodes.

Caulome A collective term for all stems of a plant and their modifications.

Caustic Any substance that contains acidic material that has an escharotic or corrosive action capable of burning or eating away living tissues.

CBC An acronym for "complete blood count".

Cecidium Gall.

Cell It is the basic building block of human tissues. Cells work jointly to produce tissues within the body. Different tissues working together produce functional organs such as the kidney, heart, brain, and skin.

Cell body In a neuron, it refers to the part that contains the nucleus and most of the cytoplasm and the organelles.

Cell culture The in vitro propagation of cells removed from organisms in a laboratory environment that has strict sterility, temperature, and nutrient requirement.

Cell cycle The sequence of events from one division of a cell to the next.

Cell differentiation It is the process whereby offsprings of a common parental cell achieve and