

Ball-and-stick model a molecular model that distorts the sizes of atoms but shows bond relationships clearly

Barometers a device for measuring atmospheric pressure

Base a substance that produces hydroxide ions (OH^{1-}) in aqueous solution; a proton acceptor

Battery a group of galvanic cells connected in series

Beta (B) particle an electron produced in radioactive decay

Beta-particle production a decay process for radioactive nuclides in which the mass number remains constant and the atomic number increases by one. The net effect is to change a neutron to a proton

Binary compound a two-element compound

Binding energy (nuclear) the energy required to decompose a nucleus into its component nucleons

Biochemistry the study of the chemistry of living things

Biomolecule a molecule that functions in maintaining and/or reproducing life

Bond (chemical bond) the force that holds two atoms together in a compound

Bond energy the energy required to break a given chemical bond

Bond length the distance between the nuclei of the two atoms that are connected by a bond

Bonding pair an electron pair found in the space between two atoms

Boyle's law the volume of a given sample of gas at constant temperature varies inversely with the pressure

Breeder reactor a nuclear reactor in which fissionable fuel is produced while the reactor runs

Bronsted-Lowry model a model proposing that an acid is a proton donor and that a base is a proton acceptor

Buffer capacity the ability of a buffered solution to absorb protons or hydroxide ions without a significant change in pH

Buffered solution a solution that resists a change in its pH when either hydroxide ions or protons are added

Buret a device for the accurate measurement of the delivery of a given volume of a liquid