



BASIC CHEMISTRY TERMINOLOGY

Acid – A compound that lowers the pH of the solution by donating a hydrogen ion/proton (H^+)

Anion – A negatively-charged ion

Anode – In an electrolytic cell, the positive electrode. This is where oxidation occurs, as the anode takes electrons

Atom – Atoms are the basic building blocks for matter. They generally contain protons (positively charged), electrons (negatively charged) and neutrons (neutral charge). The protons and neutrons are located in the center (called the nucleus) while the electrons orbit the nucleus in a series of orbitals.

Base – A substance that accepts a hydrogen ion/ proton (H^+)

Cathode – In an electrolytic cell, the negative electrode. This is where reduction occurs as the cathode provides electrons

Cation – A positively-charged ion

Chemical Bond – The attraction between atoms that allows the formation of chemical substances that contain two or more atoms

Chemical Reaction – A process that leads to the transformation of one set of chemical substances, called reactants, into other substances, called products.

Compound – A substance that is formed when two or more different chemical elements are bonded together. They are held together by chemical bonds that are difficult to break. These bonds form as a result of the sharing or exchanging of electrons between the atoms.

Covalent Bond – A chemical bond that involves sharing electrons

Electrolyte – A chemical substance that conducts electricity by separating into ions (anions and cations) when dissolved into solution

Electron – A subatomic particle with a negative charge

Element – A substance consisting of atoms that all have the same number of protons. Elements are chemically the simplest substances and cannot be broken down into different chemicals.

Exponent – A numeric notation showing how many times a number is multiplied by itself. An exponent is written as a smaller number to the upper right of the number being multiplied. For example, in the term X^2 , where X could equal any number. If X were 10 then it would be 10^2 (or 10 times 10) which is 100.

Ion – An atom or a group of atoms (e.g. molecules) that have a charge, positive (cations) or negative (anions) by losing or gaining electrons, respectively. An ion's charge is designated with either a "+" or "-" in superscript text. For example, the positive hydrogen ion is designated H^+ and the negative chloride ion is designated Cl^- .

Ionic Bond – A chemical bond that involves transfer of electrons

Logarithm (log) – A mathematical function that is the inverse or opposite to the exponent. Similar to how addition is the opposite of subtraction. Therefore, the exponent $A^B=C$ is equal to $\text{Log}_B(C)=A$

Molecule – A group of like or different atoms covalently bonded together (e.g. H_2 gas, H_2O , O_2 , etc.)

Neutron – A subatomic particle in the nucleus of the atom of about the same mass as a proton but without an



The center of an atom composed of neutrons and protons

pH – The negative logarithmic concentration of the positive hydrogen ion (H^+). The “p” stands for potential or power like power of ten, which an exponent, in this case a logarithm. The “H” stands for H^+ , which really has reference to the hydronium ion (H_3O^+) formed by an H^+ combining with H_2O .

Proton – A stable subatomic particle occurring in all atomic nuclei, with a positive electric charge. Also known as the positive hydrogen ion written as H^+

Reagent – A substance or compound that is added to a system in order to detect and/or measure another substance

Solute – A substance dissolved in another substance (like water),

Solution – A homogeneous mixture made up of multiple substances. A solution is composed of solutes and solvents. Salt water is a solution.

Solvent – A substance that can dissolve another substance, or in which another substance is dissolved, forming a solution

Subscript – A symbol (numeral or letter) written directly beneath or next to and slightly below a letter or number often used to denote the number of atoms in the molecule (e.g. hydrogen gas contains two hydrogen atoms and thus is written as H_2)

Superscript – A symbol (as a numeral or letter) written immediately above or above and to the right of another character.

Valence Electron – The outermost electrons of an atom, which are located in electron shells, which contain the electron orbitals

BY TYLER IN UNCATEGORIZED ON OCTOBER 15, 2015

Copyright © 2012 - 2017 MHF Inc. All rights reserved.

