

activity series of metals

a tool which shows the relative reactivity of common metals from most reactive to least reactive, based on the chemical reactions they undergo

alloy

a homogeneous mixture of a metal with one or more metals (or carbon) to give different properties e.g. steel and brass

anode

the positive electrode in an electrolysis cell

atom

the smallest particle of matter that can take part in a chemical reaction; consists of a nucleus surrounded by electrons

atomic weight

the average mass of the atoms present in a naturally occurring element relative to the mass of an atom of carbon-12 taken as exactly 12 as the standard

Avogadro's law

a statement that equal volumes of all gases at the same temperature and pressure contain equal numbers of particles

Avogadro's number

the number of particles in one mole of any substance; equal to 6.022×10^{23}

cathode

the negative electrode in an electrolysis cell

electrolysis

the passing of a direct electric current through a solution or molten material to decompose it

electronegativity

a measure of the ability of an element to attract electrons

empirical formula

the formula for a compound representing its atomic or ionic composition expressed in simple whole numbers e.g. the empirical formula for benzene, C₆H₆ IS CH

half-equations

an equation written to describe an oxidation or reduction half-reaction, showing the loss or gain of electrons by an atom, forming an ion

ionisation energy

the energy required to remove an electron from an atom in the gas state

isotopes

atoms with the same number of protons, but different numbers of neutrons and so different mass

law of combining volumes

a statement that the volumes of reacting gases involved (at the same temperature and pressure) may be expressed in simple whole number ratios

law of conservation
of matter

a statement that matter can
neither be created nor
destroyed; it can only be
changed from one form to
another

mineral

a naturally occurring solid
with a fixed chemical
composition from which a
metal or other material can
be obtained

molar mass

the mass in grams of one mole
of a substance with units of
grams per mole; calculated by
adding the atomic weights of all
atoms in the substance

mole

the amount of substance that
contains the same number of
particles as there are in exactly
12.00 grams of carbon-12

ore

a natural material obtained
from the crust of the Earth that
contains metals or other
material

percentage composition

the percentage by mass of each element of a compound

periodic table

a table of the chemical elements in order of atomic number, arranged in rows and columns to illustrate periodic similarities and trends in physical and chemical properties

theoretical yield

the quantity of product predicted from the balanced chemical equation when known quantities of reactants undergo reaction

valency

the combining power of an element