

Chemistry Vocabulary

2986 Vocabulary Words

Section 1

Safety

absorption	incompatible
acute effect	ingestion
alkali	inhalation
allergic reaction	inhibitor
anesthetic effect	irritant
antidote	local exhaust
asphyxiant	NA
autoignition temperature	ND
carcinogenic agent	neutralize
chemical asphyxiant	OSHA
chronic effect	PEL
COC	PMCC
combustibility	poison
corrosivity	PPB
cryogenicity	PPM
dermal	precautionary statements
dermal sensitization	radioactive
dermatitis	radioactivity
environmental impact	reactivity
EPA	respiratory protection
explosion hazard	sensitizer
exposure limit	stability
extinguishing agent	STEL
eye protection	suspect carcinogenic agent
fetal	TCC

fire point
flammability
flammable limit
flash point
hazardous decomposition
hazardous material
ignition source
impervious

teratogen
TLV
TOC
toxicity
vapor
vapor density
viscosity
volatility

Math

abscissa
area
constant
dependent variable
direct proportion
extrapolation
factor label method
independent variable

inverse proportion
linear relationship
parabola
parabolic relationship
rate
ratio
v
volume

Scientific Processes

collecting data
communicating
conclusion
constant
control
data
data collecting
data table
dependent variable
drawing conclusions

inference
law
model
observation
operational definitions
organizing data
problem
problem solving
procedure
scientific law

error
experiment
graph
hypothesis
independent variable

scientific method
senses
theory
variable
variable factor

Measurements

absolute zero
accuracy
calorie
Celsius
Centigrade
data
Fahrenheit
grams
gravity
instrument
Joule
liter

measurement
meniscus
meter
metric system
newton
Rankin scale
specific heat
temperature
time
unit
volume
weight

Prefixes

atto
centi
da
deci
deka
exa
femto
giga
hecto

milli
nano
one billion
one hundred
one million
one quadrillion
one quintillion
one tenth
one thousand

kilo
mega
micro

peta
pico
tera

SI Units - Metric System

A
ampere
atto
c
candela
cd
centi
centimeter
cm
cubic centimeter
cubic meter
d
da
deci
deka
density
derived units
electric current
femto
ft
G
h
hecto
J
K
Kelvin
kg

micro
micron
milli
milliliter
millimicron
millisecond
MKS
ml
Mm
mol
mol
mole
mph
n
N
nano
one thousandth
order of magnitude
Pa
parallax
pico
precision
s
scientific notation
scientific notation - addition
scientific notation - division
scientific notation - multiplication

kilo
kilogram
kilometer
L
length
liter
luminous intensity
m
M
m/s
mega
meter
metric system

scientific notation - subtraction
second
SI
SI derived unit
significant figures
square centimeters
standard meter
T
tera
thermodynamic temperature
time
volume
weight

Lab Equipment

1 hole stopper
2 hole stopper
balance
beaker tongs
bimetallic thermometer
bunsen burner
burette
cork stopper
crucible
crucible tongs
decantation
effluent
erlenmeyer flask
eudiometer
evaporating dish
filtration
Florence flask

gas measuring tube
graduated cylinder
liquid thermometer
metric ruler
manometer
mortar & pestle
pipet
precipitate
qualitative analysis
quantitative analysis
ring stand
support ring
test tube
test tube clamp
thermometer
volumetric flask
watch glass

funnel

wire gauze

Matter and Energy

absolute scale
Absolute temperature scale
absolute zero
absorption
activation energy
adulterant
bimetallic thermometer
calorie
calorimetry
Celsius
chemical compound
chemical properties
chemical symbols
combined state
compound
disintegration
element
elemental state
endothermic
energy
English System
exothermic
extensive properties

fluoresce
free state
heterogeneous mixture
homogeneous mixture
hypothesis
inorganic
intensive properties
Kelvin
kinetic energy
law
liquid thermometer
matter
mixture
physical properties
physical state
potential energy
pure substance
quantity
radiant energy
specific heat
theory
thermometer

Phases of Matter

air pressure
atmospheric pressure

heat of vaporization
heating curve

barometer
barometric pressure
boiling point
chemical change
condensation
condensation point
cooling curve
critical pressure
critical temperature
delta H_{fus}
delta H_{vap}
dispersed phase
distillate
distillation
dry ice
enthalpy of fusion
enthalpy of vaporization
entropy
equilibrium vapor pressure
evaporation
freezing point
gas phase
heat of combustion
heat of condensation
heat of crystallization
heat of fusion
heat of solidification

hydrate
inches of mercury
kilocalorie
liquid phase
melting point
mercury barometer
mm of Hg
monometer
normal boiling point
pascal
physical change
plasma phase
randomness
solid phase
specific gravity
standard pressure
sublimation
sublime
substance
temperature
triple point
vapor equilibrium
vapor pressure
viscosity
volume
water vapor

Gases

absolute pressure
adhesion
adiabatic system

ideal gas
ideal gas equation
ideal gas law

atmospheric pressure
Avogadro's Hypothesis
Avogadro's law
Avogadro's principle
barometer
Boyle's law
Boyle's law graph
buoyancy
Charles law
Charles law graph
cohesion
combined law
Dalton's Law
density
diffuse
diffusion
effusion
Equation of state
extrapolation
Fahrenheit
gas deviations
gas pressure
Gay-Lussac law
Gay-Lussac's law graph
Graham's Law
gram formula mass

Kinetic Molecular theory
law of partial pressures
manometer
mm of Hg
mol
molar volume
mole
molecular mass
molecular volume
molecule
n
P
Pa
partial pressure
perfect gas
pressure
R
real gas
STP
T
temperature
torr
Universal Gas constant
Universal Gas Law
V

Laws

Avogadro's law
Conservation of energy
Conservation of mass-energy
Conservation of matter

Definite composition
Henry's law
Multiple proportions
Periodic law

Atomic Theory and the Atom

allotrope
alpha particles
amu
anode
atom
atomic mass
atomic mass unit
atomic number
atomic radii
atomic spectrum
average atomic mass
bright line spectrum
carbon 12
cathode
conductor
Conservation of energy
Conservation of mass-energy
continuous spectrum
Coulomb's Law
dark line spectrum
definite energy levels
deuterium
dipole
electromagnetic force
electromagnetic spectrum
electron
electron cloud
electron configuration
electron dot model
electrostatics
Law of Multiple Proportion
lower energy level
M shell
mass
mass defect
miniature solar system model
N shell
neutral atom
NMR
nuclear charge
nuclear magnetic resonance spectroscopy
nucleon
O shell
orbit
orbital model
orbital velocity
ordinary hydrogen
ozone
P shell
period
photon
Planck's constant
positive rays
principal energy level
prism
protium
proton
Q shell
quanta of energy
quantum

emission spectrum
energy level
excited state
frequency
gram
ground state
group
hertz
highest energy level
infrared
infrared spectroscopy
insulator
isotope
K shell
L shell
Law of Conservation of Mass
Law of Definite Proportions

quantum of energy
radio waves
Rutherford's Gold Foil Experiment
shells
spectral lines
spectroscope
spectrum
Thompson
tritium
ultraviolet
ultraviolet spectroscopy
wave
wave mechanics
wave velocity
wavelength
X rays

Scientists

Angstrom(Anders J.)
Arrhenius(Savante)
Aston(Francis William)
Avogadro(Count Amedeo)
Becquerel(Henri)
Berzelius(Jons Jacob)
Bohr(Niels)
Boyle(Robert)
Bronstead(J.N.)
Brown(Robert)
Cannizzaro(Stanislo)
Carr(Emma)
Carver(George Washington)

Heisenberg(Werner)
Henry(William)
Heroult(Paul)
Huckel(E.)
Huygens(Christian)
Janssen(Pierre)
Kelvin(William Thompson Lord)
Lavoisier(Antoine-Laurent)
Le Chatlier(Henri Luis)
Leusippus
Lewis(Gilbert Newton)
Lockyer(Sir Joseph Norman)
London(Fritz)

Cavendish(Henery)
Celsius(Anders)
Chadwick(Sir James)
Charles(Jacques)
Cockcroft
Cottrell(F. G.)
Crick(Francis)
Curie(Frederic)
Curie(Irene Joliot)
Curie(Madame Joliot)
Da Vinci(Leonardo)
Dalton(John)
Davy(Sir Humphrey)
de Broglie(Louis)
Debye
Democritus
Dorn(Frederick Ernst)
Einstein(Albert)
Fahrenheit(Gabriel Daniel)
Faraday(Michael)
Gay Lussac(Joseph)
Geiger(Hans)
Gibbs(J. Willard)
Graham(Thomas)
Guldberg(Cato Maximillian)
Haber(Fritz)
Hahn(Otto)
Hall(Charles)

Marsden(Ernest)
Meitner(Lise)
Mendekeev(Dmitri)
Millikin(Robert A.)
Moseley(Henry Gwyn-Jeffreys)
Newton(Sir Isaac)
Nicholson(William)
Pascal(Blaise)
Pauling(Linus)
Percy(Marguerite)
Planck(Max)
Priestley(Joseph)
Proust(Joseph Louis)
Ramsey(William)
Roentgen(Wilhelm)
Rutherford(Ernest)
Scheele(Karl)
Schrodinger(Erwin)
Solvay(Ernest)
Strutt(John William)
Thompson(Sir John)
Torricelli(Evangelista)
van der Waal(Johannes)
Volta(Allessandro)
Waage(Peter)
Walton(E.T.S.)
Watson(James)
Wohler(Frederick)

Orbital Model of the Atom

$2n^2$
antibonding orbital

Newtonian mechanics
nodal surface

argon core
atom
Aufbau principle
Bohr's principal energy level
charge-cloud model
d sublevel
diamagnetism
dumbbell shape
electron cloud
energy sublevel
excited state
f sublevel
four quantum numbers
ground state
Heisenberg's Uncertainty Principle
helium core
Hund's Rule
kernel
krypton core
l
m
magnetic number
magnetic quantum number
momentum
n
n²
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
n = 7
neon core

number of energy sublevels
orbital
orbital - probability
orbital diagrams
orbital pair
orbital quantum number
p_x axis
p_y axis
p_z axis
p sublevel
paramagnetism
Pauli Exclusion Principle
principal quantum number
probability
pyramidal shape
quantum mechanics area
quantum mechanics field
quantum number
quantum theory
s
s sublevel
shape of electron orientation
spherical
spin
spin quantum number
sublevel
valence electrons
valence shell
wave mechanical model
wave particle duality of nature
x axis
y axis
z axis

Section 2

Nucleus

activity
 alpha decay
 alpha particle
 alpha particle deflection
 alpha rays
 antielectron
 antimatter
 antineutrino
 antineutron
 antiparticle
 antiproton
 antiquarks
 artificial radioactivity
 artificial transmutation
 atomic number
 baryon
 beta decay
 beta particle
 beta rays
 binding energy
 binding energy per nucleon
 boson
 bottom quark

De Broglia Principle
 deuterium
 deuteron
 down quark
 lepton
 mass defect
 mass number
 meson
 muon
 muon neutrino
 neutrino
 neutron
 nuclear energy levels
 nuclear mass defect
 nucleons
 nuclide
 positron
 proton
 quarks
 strange quark
 strong nuclear force
 tau
 tau neutrino

charm quark
Conservation of Energy and Mass
cosmic ray

top quark
up quarks

Spectrum

Balmer series
compressional wave
electromagnetic energy
electromagnetic radiation
longitudinal wave
mass spectrometer
radiation
red shift

reflected
reflection
refracted
refraction
scattering
solar radiation
ultraviolet rays

Nuclear Chemistry

alpha decay
alpha particle
atomic nucleus
beta decay
beta particle
binding energy
chain reaction
cloud chamber
critical mass
decay chain
decay series
disintegration series
fission
fusion
gamma decay

nuclear reaction
nucleon
nucleus
nuclide
ordinary hydrogen
photon
plasma
proton
radiation
radioactive
radioactive dating
radioactive decay
radioactive isotope
radioactive material
radioactive series

gamma ray
half life
irradiation
krypton 85
mass defect
natural radioactivity
neutron
nuclear chain reaction
nuclear change
nuclear decay series
nuclear energy
nuclear equation
nuclear fission
nuclear fusion
nuclear mass defect
nuclear radiation

radioactivity
radioactivity
radioisotope
rem
roentgen
stable isotope
strontium 90
synthetic elements
tracers
transmutation
transmutation reaction
transuranium elements
tritium
triton
unstable
X rays

Nuclear Detectors and Reactors

accelerator
bubble chamber
cesium 137
chain reaction
containment dome
control rods
cyclotron
drift tube
electroscope
fission
fusion
fusion reactor
Geiger counter
Geiger Mueller tube

nuclear reaction
nuclear reactor
nuclear wastes
particle accelerator
photographic plate
plasma phase
plutonium
 Pu^{239}
radioactive wastes
radioactivity clock
radon 222
reactor core
scintillation
scintillation counter

half-life
heat exchanger
heavy water
hydrogen bomb
isotope
linear accelerator
meltdown
moderator
natural transmutation
nitrogen 16
nuclear fuel
nuclear power

shielding
slow neutron
spark chamber
synchrotron
thermonuclear device
thermonuclear power
thermonuclear reaction
transmutation
U²³⁵
unstable isotope
Wilson cloud chamber

Nuclear Applications

accelerators
artificial radioactivity
betatron
binding energy
breeder reactor
circular accelerator
cobalt 60
containment dome
control rods
coolant
core
critical mass
cyclotron
fuel rods
geologic dating
gray
Gy
heat exchanger

meltdown
moderator
natural transmutation
nuclear fission
nuclear fusion
nuclear power
nuclear reactor
nuclear wastes
nucleons
particle acceleration
plasma phase
rad
radiation counters
radiation detection
radiation detector
reactor core
sievert
synchrotron

iodine 131
irradiation
isotope
kerma
man made element
mass defect

synthetic elements
technetium 99
thermonuclear power
thermonuclear reaction
tracers
transmutation

Properties of Elements

Argon core
atom
atomic mass
atomic mass unit
atomic number
atomic radius
brittle
chemical bond
chemical bond energy
chemical bonding
color
conductance
conduction
covalent atomic radius
covalent bond
deuterium
ductility
electrical energy
electron
electron cloud
energy level
fluorescence
group
insulator

ionic radius
isoelectronic species
isotope
luster
malleability
mass
mass number
metal
metalloid
molecular weight
molecule
monoatomic element
negative ion
neutron
noble element
nonmetal
nucleus
ordinary hydrogen
period
polyatomic ion
principal energy level
semimetal
shielding effect
stable octet

ion
ionic bond

valence electrons

Periodic Table

actinoid elements
actinoid series
activity
activity series
alkali
alkali earth family
alkali earth group
alkali family
alkali group
alkali metal family
alkaline properties
angstrom
atomic radii
chemical family
classification
family
group
group 0
group 1
group 13
group 14
group 15
group 16
group 17
group 18
group 2
halide
halogen

halogen group
inert
inert group
ionic radius
lanthanoid elements
lanthanoid series
metallic ion
nitrogen group
noble element
noble family
noble gas
noble group
nonmetallic ion
oxygen family
oxygen group
period
periodic law
periodic table
photon
quanta of energy
rare-earth element
reactivity
transition elements
transuranium element
triad
ultraviolet light
valence electron

Nomenclature for Elements Above 99

bi
elided
enn
hex
ium
nil
oct
pent
quad
sept
tri
un
Une

Unh
unnil
unnilennium
unnihexium
unniloctium
unnilpentium
unnilquadium
unnilseptium
Uno
Unp
Unq
Uns

Properties of Groups

active metal
active nonmetal
colored ions
diatomic
diatomic elements
ductile
ductility
electrical conductor
fluoridation

joule
luster
malleable
metal
metalloid
negative oxidation state
nonmetal
photoelectric effect
thermal conductivity

Electronegativity - Ionization Energy - Electron affinity

electron affinity
electronegative
electronegative difference
electronegative scale
electronegativity
excited state
first ionization energy

ionization energy
ground state
high electronegativity
high ionization energy
low electronegativity
low ionization energy
standard for electronegatives

Types of Chemical Bonds

adhesion
ammonia molecule
ammonium ion
beryllium dichloride
bond angle
bond axis
bond breaking
bond forming
bond length
bond order
bond strength
bonding orbital
boron trifluoride
carbon dioxide
chemical bonding
cis isomer
cohesion
column chromatography
coordinate covalent bond
coordination number
covalent bond
diatomic molecule
dipole

hybrid orbital
hybridization
hydrogen chloride
hydronium ion
induced dipole
intermolecular forces
internuclear distance
intramolecular forces
ion
ionic bond
ionic bond
ionic bonding
ionization energy
kernel
Lewis Dot diagrams
Lewis structures
ligand
London force
mobile phase
oxidation number
paper chromatography
percent of ionic character
phosphorus III hydride

dipole - dipole attraction	pi molecular & antibonding molecular orbital
dipole - dipole forces	polarity
dipole moment	radical
dispersion force	resonance
electron dot diagram	resonance hybrid
electronegative	sodium sulfide
electronegative difference	stationary phase
electronegative scale	temporary dipole
electrovalent bond	thin layer chromatography
excited state	trans isomer
fractionation	van der Waals radius
gas chromatography	water molecule

Molecular Shapes & Bonding - Liquid - Gases

asymmetrical	pyramidal polar molecule
bent polar molecule	single bond
double bond	sp ² bonding
hybridization	sp ³ bonding
linear nonpolar molecule	sp bonding
linear polar molecule	symmetrical
nonpolar covalent bond	tetrahedral angle
nonpolar molecule	tetrahedral nonpolar molecule
octet rule	tetrahedral polar molecule
oxidation number	tetravalent
p ² bonding	triple bond
p ³ bonding	trivalent
planar triangle	univalent
polar covalent bond	V shaped
polar molecule	VSEPR

Types of Bonding in Solids - Liquids

active metal
active nonmetal
ammonia
carbonation
conduction
coordinate covalent bond
covalent bond
crystal lattice
delocalized electrons
diamagnetism
dielectric constant
dipole-dipole
ductile
electrical conductivity
electrolyte
electronic conduction
electrostatic attraction
friability
functional isomer
geometric isomer
hydrated ion
hydrogen bond
hydrogen bonding
ionic bond
ionic crystal
ionic solid
ionization energy
isomorphous
lattice
lattice energy
luster
macromolecule
malleable

metallic crystal
metallic substance
metalloid
mobile electrons
molecular liquid
molecular solid
molecule
negative ion
network compound
network element
network solid
nonelectrolyte
nonpolar bond
nonpolar covalent bond
nonpolar liquid
nonpolar molecular solid
open orbitals
paramagnetism
polar
polar bond
polar liquid
polar molecular solid
polar molecule
polymorphous
positional isomer
positive ions
repulsion
solute
solvent
structural isomer
thermal conductivity
thermionic
vacant orbital

metallic bond
metallic conduction

van der Waal's force

Formulas

binary compound
carbon dioxide
chemical formula
disintegration
Law of Definite Proportions
Law of Multiple Proportions

oxidation state
oxidizing agent
reducing agent
Stock system
ternary compound
valence

Metallic Radicals

ammonium
metallic radicals
neptunyl(V)
neptunyl(VI)
plutonyl(V)

plutonyl(VI)
radical
vanadyl(V)
vanadyl(VI)

Nonmetallic Radicals

acetate
amide
arsenate
arsenite
astatate
benzoate
bismethate
bisulfate
bisulfite

hypophosphite
iodite
manganate
molybdate
monohydrogen phosphate
monohydrogen phosphite
nitrate
nitrite
nonmetallic radicals

borate
bromate
carbonate
chlorate
chlorite
chromate
citrate
dichromate
dihydrogen phosphate
dihydrogen phosphite
diphosphate
formate
hexachloroplatinate
hexacyanoferrate(II)
hexacyanoferrate(III)
hexafluorosilicate
hydrogen carbonate
hydrogen sulfate
hydrogen sulfite
hydroxide
hypobromite
hypochlorite

orthosilicate
oxalate
perbromate
perchlorate
periodate
permanganate
peroxide
peroxydisulfate
phosphate
phosphite
radical
ruthenate
selenate
selenite
sulfate
sulfite
tellurate
tellurite
thiocyanate
thiosulfate
tungstate
vanadate

Binary Acids

binary acids
hydro
hydrobromic acid
hydrochloric acid
hydrocyanic acid

hydrofluoric acid
hydroiodic acid
hydrosulfuric acid
Hydrotelluric acid

Ternary Acids

acetic acid
bromic acid
carbonic acid
chloric acid
chlorous acid
hypo
hypobromous acid
hypochlorous acid
ic
iodic acid
nitric acid

nitrous acid
ous
per
perchloric acid
periodic acid
phosphoric acid
phosphorous acid
sulfuric acid
sulfurous acid
ternary acids

Equations

acid base reaction
analysis
balanced equation
burning
chemical equation
coefficient
combustion
composition reaction
decomposition reaction
double replacement
dust explosion
equation
explosion
flammable
incineration
ionic equations
kindling temperature
metathesis

oxidation reduction reaction
oxide
oxidized
oxidizing agent
ozone
phlogiston
precipitate
precipitation reaction
products
radical
reactants
reduced
reducing agent
single replacement
spectator ion
spontaneous combustion
subscript
superscript

nascent

synthesis

□

Section 4

Oxidation - Reduction

ampere

anion

anion hydrolysis

anode

Anode

auto-oxidation

battery

brine

cathode

cation

cell potential

coefficient

conductivity

conductor

conservation of charge

coulomb

decrease in oxidation number

direct current

electric current

electrical conductivity

electrochemical cell

electrochemical reaction

electrochemistry

electrode

electrode potential

electroplating

external circuit

gain of electrons

half cell

half reaction

half reaction - oxidation

half reaction - reduction

increase in oxidation number

ionic conduction

ionic equations

LEO Roars GER

loss of electrons

metallic conduction

mobile ion

oxidant

oxidation

oxidation number

oxidation state

oxidation-reduction reaction

oxidizing agent

redox reaction

reducing agent

reductant

reduction

spectator ion

electrolysis
electrolyte
electrolytic cell
electrolytic conduction
electronic conduction

standard conditions
standard hydrogen half cell
volt
voltaic cell

Electrochemistry

activity	ion reduced
activity series	ionization
anode	maximum voltage
carbonation	negative electrode
cathode	net ionic equations
chemical equation	net potential
chemical formula	oxidation
combustion	oxidation reduction reactions
conservation of energy	oxidizing agent
disintegration	oxidizing potential
electrochemical cell	positive electrode
electrochemical cell - ion migration	precipitate
electrochemical cell at equilibrium	reactants
electrochemical cell initial voltage	reducing agent
electrode	reduction
electrolyte	reduction potential
external circuit	salt bridge
half cell	slow oxidation
half reaction	standard hydrogen electrode
hydrogen standard	standard reduction potentials
internal circuit	substance oxidized
ion oxidized	substance reduced

Metallurgy

allotropes
alloy
amalgam
annealing
anode
anode reaction
basic oxygen process
blast furnace
cast iron
cathode
cathode reaction
charge
chrome steel
chrome-vanadium steel
coke
contact process
corrosion
duriron steel
ferrous alloys
flotation
flux
fractional distillation
Frasch process
froth flotation
galvanized
galvanizing
Hall-Heroult process
high-speed tool steel

lime
manganese steel
metallurgy
mineral
nitrogen fixation
nonferrous alloy
ore
ore reduction by electricity
ore reduction by heat
Oswald process
oxide ore
oxides
pig iron
reduction
roasting
rust
self protecting metal
self protective coating
silicon dioxide
silicon steel
slag
smelting
solder
stainless steel
tarnish
tempering
water gas

Batteries

anode

lead acid battery

cadmium
cathode
charge
Daniell cell
discharge
electromotive force
emf
lead

lead IV oxide
nickel cadmium battery
nickel II hydroxide
potassium hydroxide
rechargeable
sulfation
sulfuric acid

Electrolytic Cells

anode mud
brine
electrolysis of brine
electrolysis of fused salt

electrolysis of water
electrolyte
electrolytic cell
electroplating

Electrochemistry

ampere
anode
cathode
coulomb
equivalent weight
F
Faraday

galvanometer
I
Q
t
volt meter
voltage

Hydrocarbons

alkanes
aliphatic
allotrope

graphite
homologous series
hydrocarbon

aromatic hydrocarbon
aryl
catenation
CH₂
cracking process
crude oil
diamond
fractional distillation
fuel oil
gasoline

increment
inorganic compound
octane rating
oil
organic
organic chemistry
organic compound
petroleum
thermal cracking

Unsaturated Hydrocarbons

alkenes
alkines
alkyl group
alkyl radical
alkylation
branch-chain
covalent bond
double bond
isomerization
isomers

molecular formula
pi bond
saturated hydrocarbons
semistructural formula
sigma bond
single bond
structural formula
triple bond
unsaturated hydrocarbon

Alkanes

alkane
alkane general formula
ane
butane
C_nH_{2n+2}
decane

methane
molecular formula
natural gas
nonane
octane
open-chain

ethane
general formula
heptane
hexane
homologous series

paraffin
pentane
propane
semistructural formula
structural formula

Alkenes

alkene
alkene general formula
alkene semistructural formula
alkydiene
butene
 C_nH_{2n}
diene

ene
ethene
ethylene series
olefin
pentene
propene
structural formula

Alkynes

acetylene series
alkine
alkyne
alkyne general formula
alkyne semistructural formula
alkyne structural formula
butyne

C_nH_{2n-2}
ethyne
ine
pentine
propyne
yne

Organic Prefixes

ane
but
dec

meth
non
oct

diene
ene
eth
hept
hex
ine

pent
prefix
prop
suffix
triene
yne

Cyclic Structures & Benzene Series

aromatic compounds
benzene general formula
benzene molecular formula
benzene - resonance
benzene series
benzene structural formula
benzene symbol
 C_6H_6
 C_nH_{2n-6}

cycloalkadiene
cycloalkane
cycloalkene
cyclic hydrocarbon
derivative
phenol
phenyl group
ring structure

Organic Radicals

branch chain
butyl
 C_nH_{2n+1} -
decyl
ethyl
heptyl
hexyl
methyl
nonyl

octyl
parent chain
pentyl
propyl
R
radical general formula
radical group
yl

Primary Alcohols

alcohol semistructural formula	primary alcohol molecular formula
alcohol structural formula	monohydroxy alcohol
charcoal	ol
denatured alcohol	primary alcohol
destructive distillation	primary alcohol R structure
emetic	R-OH
fermentation process	spirit
alcohol functional group	tincture
grain alcohol	

Secondary - Tertiary and Polyalcohols

CH ₂ OHCH ₂ OH	R structure secondary alcohol
CH ₂ OHCHOHCH ₂ OH	R-HCOH-R
dihydroxy alcohol	RCOHR'R''
dihydroxy alcohol formula	secondary alcohol structural formula
formula - trihydroxy alcohol	secondary alcohol oxidation
glycerin	secondary alcohol semistructural formula
glycol	tertiary alcohol structural formula
primary alcohol dehydration	tertiary alcohol semistructural formula
primary alcohol structural formula	tertiary alcohol
R structure - tertiary alcohol	trihydroxy alcohol

Aldehydes

al	formaldehyde
aldehyde	HCHO
aldehyde functional group	oxidation primary alcohol
aldehyde structural formula	aldehyde R structure
CH ₃ CHO	R-CHO

Ethers - Ketones

carbonyl group

CH_3COCH_3

dimethyl ether

ether

ether formula

ether structural formula

ketone

ketone formula

ketone structural formula

propanone

R structure ether

R structure ketone

$\text{R-O-R}'$

Organic Acids

acid R structure

acid structural formula

butanoic acid

carboxyl group

ethanoic acid

formic acid

functional group

HCOOH

methanoic acid

oic

organic acid

pentanoic acid

propanoic acid

RCOOH

Alkali Halides

alkyl halide

alkyl halide R structure

alkyl halide structural formula

CH_3Cl

Freon

methyl chloride

monochloromethane

R-X

Hydrocarbon Organic Reactions

addition reactions
alkane reaction
alkene reaction
alkyne reaction

catalytic cracking
cracking process
hydrogenation process
substitution reactions

Esters & Saponification

alkylation
detergent
esterification
fat
fatty acid
Fisher-Tropsch
glycerol
potash

RCOOR'
saponification
saturated fats
soap
syndet
unsaturated fats
vitamins

Polymers

addition polymer
addition polymerization
condensation polymer
condensation polymerization
copolymerization
dimer
lanolin
latex
monomer
mordant
nylons
phenolic plastics

polyethylene
polymerization
polymers
polystyrene
polyvinyl chloride
rayon
silicones
synthetic
textile
thermoplastic
thermosetting
vinyl group

plastics

Biochemistry

active site
amide
amine
amino acid
biochemistry
carbohydrate
carboxyl group
catenation
cellulose
dehydration synthesis
disaccharide
endergonic
enzyme
exergonic
fructose
glucose
glycogen
glycolipids
glycolysis
inversion of sucrose
lipid
monosaccharides

nucleic acid
nucleotide
optical isomer
peptide
peptide bond
phospholipids
polypeptide
polysaccharides
protein
R-NH₂
RCHNH₂ cooh
RNA
saccharin
starch
steroid
stereoisomers
substrate
sucrose
toxins
triglyceride
waxes

Section 4

Oxidation - Reduction

ampere
anion

electroplating
external circuit

anion hydrolysis
anode
Anode
auto-oxidation
battery
brine
cathode
cation
cell potential
coefficient
conductivity
conductor
conservation of charge
coulomb
decrease in oxidation number
direct current
electric current
electrical conductivity
electrochemical cell
electrochemical reaction
electrochemistry
electrode
electrode potential
electrolysis
electrolyte
electrolytic cell
electrolytic conduction
electronic conduction

gain of electrons
half cell
half reaction
half reaction - oxidation
half reaction - reduction
increase in oxidation number
ionic conduction
ionic equations
LEO Roars GER
loss of electrons
metallic conduction
mobile ion
oxidant
oxidation
oxidation number
oxidation state
oxidation-reduction reaction
oxidizing agent
redox reaction
reducing agent
reductant
reduction
spectator ion
standard conditions
standard hydrogen half cell
volt
voltaic cell

Electrochemistry

activity
activity series

ion reduced
ionization

anode	maximum voltage
carbonation	negative electrode
cathode	net ionic equations
chemical equation	net potential
chemical formula	oxidation
combustion	oxidation reduction reactions
conservation of energy	oxidizing agent
disintegration	oxidizing potential
electrochemical cell	positive electrode
electrochemical cell - ion migration	precipitate
electrochemical cell at equilibrium	reactants
electrochemical cell initial voltage	reducing agent
electrode	reduction
electrolyte	reduction potential
external circuit	salt bridge
half cell	slow oxidation
half reaction	standard hydrogen electrode
hydrogen standard	standard reduction potentials
internal circuit	substance oxidized
ion oxidized	substance reduced

Metallurgy

allotropes	lime
alloy	manganese steel
amalgam	metallurgy
annealing	mineral
anode	nitrogen fixation
anode reaction	nonferrous alloy
basic oxygen process	ore
blast furnace	ore reduction by electricity
cast iron	ore reduction by heat
cathode	Oswald process

cathode reaction
charge
chrome steel
chrome-vanadium steel
coke
contact process
corrosion
duriron steel
ferrous alloys
flotation
flux
fractional distillation
Frasch process
froth flotation
galvanized
galvanizing
Hall-Heroult process
high-speed tool steel

oxide ore
oxides
pig iron
reduction
roasting
rust
self protecting metal
self protective coating
silicon dioxide
silicon steel
slag
smelting
solder
stainless steel
tarnish
tempering
water gas

Batteries

anode
cadmium
cathode
charge
Daniell cell
discharge
electromotive force
emf
lead

lead acid battery
lead IV oxide
nickel cadmium battery
nickel II hydroxide
potassium hydroxide
rechargeable
sulfation
sulfuric acid

Electrolytic Cells

anode mud
brine
electrolysis of brine
electrolysis of fused salt

electrolysis of water
electrolyte
electrolytic cell
electroplating

Electrochemistry

ampere
anode
cathode
coulomb
equivalent weight
F
Faraday

galvanometer
I
Q
t
volt meter
voltage

Hydrocarbons

alkanes
aliphatic
allotrope
aromatic hydrocarbon
aryl
catenation
CH₂
cracking process
crude oil
diamond
fractional distillation
fuel oil
gasoline

graphite
homologous series
hydrocarbon
increment
inorganic compound
octane rating
oil
organic
organic chemistry
organic compound
petroleum
thermal cracking

Unsaturated Hydrocarbons

alkenes
alkynes
alkyl group
alkyl radical
alkylation
branch-chain
covalent bond
double bond
isomerization
isomers

molecular formula
pi bond
saturated hydrocarbons
semistructural formula
sigma bond
single bond
structural formula
triple bond
unsaturated hydrocarbon

Alkanes

alkane
alkane general formula
ane
butane
 C_nH_{2n+2}
decane
ethane
general formula
heptane
hexane
homologous series

methane
molecular formula
natural gas
nonane
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structural formula

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alkyne semistructural formula
alkyne structural formula
butyne

C_nH_{2n-2}
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ine
pentine
propyne
yne

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cycloalkene
cyclic hydrocarbon
derivative
phenol
phenyl group
ring structure

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branch chain
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C_nH_{2n+1}-
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heptyl
hexyl
methyl
nonyl

octyl
parent chain
pentyl
propyl
R
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radical group
yl

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alcohol structural formula
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denatured alcohol
destructive distillation
emetic
fermentation process
alcohol functional group
grain alcohol

primary alcohol molecular formula
monohydroxy alcohol
ol
primary alcohol
primary alcohol R structure
R-OH
spirit
tincture

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aldehyde	HCHO
aldehyde functional group	oxidation primary alcohol
aldehyde structural formula	aldehyde R structure
CH_3CHO	R-CHO

Ethers - Ketones

carbonyl group	ketone formula
CH_3COCH_3	ketone structural formula
dimethyl ether	propanone
ether	R structure ether
ether formula	R structure ketone
ether structural formula	R-O-R'
ketone	

Organic Acids

acid R structure	HCOOH
acid structural formula	methanoic acid
butanoic acid	oic
carboxyl group	organic acid
ethanoic acid	pentanoic acid
formic acid	propanoic acid
functional group	RCOOH

Alkali Halides

alkyl halide	Freon
alkyl halide R structure	methyl chloride
alkyl halide structural formula	monochloromethane
CH ₃ Cl	R-X

Hydrocarbon Organic Reactions

addition reactions	catalytic cracking
alkane reaction	cracking process
alkene reaction	hydrogenation process
alkyne reaction	substitution reactions

Esters & Saponification

alkylation	RCOOR'
detergent	saponification
esterification	saturated fats

fat
fatty acid
Fisher-Tropsch
glycerol
potash

soap
syndet
unsaturated fats
vitamins

Polymers

addition polymer
addition polymerization
condensation polymer
condensation polymerization
copolymerization
dimer
lanolin
latex
monomer
mordant
nylons
phenolic plastics
plastics

polyethylene
polymerization
polymers
polystyrene
polyvinyl chloride
rayon
silicones
synthetic
textile
thermoplastic
thermosetting
vinyl group

Biochemistry

active site
amide
amine
amino acid
biochemistry
carbohydrate
carboxyl group
catenation

nucleic acid
nucleotide
optical isomer
peptide
peptide bond
phospholipids
polypeptide
polysaccharides

cellulose
dehydration synthesis
disaccharide
endergonic
enzyme
exergonic
fructose
glucose
glycogen
glycolipids
glycolysis
inversion of sucrose
lipid
monosaccharides

protein
R-NH₂
RCHNH₂ cooh
RNA
saccharin
starch
steroid
stereoisomers
substrate
sucrose
toxins
triglyceride
waxes