

TENDER HEART HIGH SCHOOL, SEC-33B, CHD.

CLASS- VII

CHAPTER- 6

SUBJECT- CHEMISTRY

TEACHER- ANAMIKA

Uses of Non-metal

1. Oxygen:- 1. Human beings & Animals use O_2 for breathing & respiration.
2. It has many Industrial uses.
3. It is Important for combustion.
2. Nitrogen:- 1. It is used in food canning such as packing of chips.
2. Used for producing Compounds.
3. Carbon:- is one of the most Important and widely distributed element. It mainly occurs as coal, graphite & diamond. In atmosphere it is present as CO_2 .
 - a) Coal:- It is mostly used as fuel in homes & Industries.
 - b) Graphite:- It is a crystalline, black, lustrous substance. It is soft, slippery. It is used :-
 - (i) In lead pencil

- (ii) as electrode material in electrolytic cells
- (iii) as solid lubricant.
- (iv) In nuclear reactors

c) Diamond:- It is crystalline form of carbon. It shines brilliantly and is the hardest naturally occurring substance.

- (i) Pure diamond is used as precious gem.
- (ii) Impure diamond is used ~~as~~ for cutting glass.

d) Charcoal (i) It is used as decolourising agent in sugar industry.
(ii) It is used to purify water as it removes the colour.

4. Iodine (I_2):- (1) It is used in iodized salt for healthy growth of human body.

2. In photographic films in the form of potassium iodide.

3. To make tincture of iodine.

5. Chlorine (Cl_2):- (1) as bleaching agent

(2) as disinfectant

6. Fluorine:- (1) As sodium fluoride in toothpaste
2. As CFC in refrigerator
7. Hydrogen(H_2):- 1. It is used as reducing agent
2. It is used to make NH_3
8. Sulphur(S_8):-
1. It is used as fungicides & Insecticides
2. Used in manufacturing of drugs.
3. Used in Vulcanize of rubber

Metalloids:- Which shows some properties of non-metal & some properties of non-metal.

Uses of Some metalloids:-

1. Silicon(Si):- It does not occur in free state in nature. In combined state as sand. Sand is chemically known as SiO_2 also called as Silica
- (a) Highly pure silicon is used in making microchips for computers, transistors, solar cells.
- (b) It is used in the manufacture of a water-proof material called Silicon

c) It is used to prepare a substance called silicon carbide which is hardest compound prepared by man.

d) It is also used to make electrical steel.

2) Germanium (Ge):- 1. It is used as semiconductor

2. It is used as transistor in many electronic appliances.

3. It is also used to form alloys

3) Antimony (Sb):- 1. It is used in electronic industry

2. It is alloyed with lead to improve its hardness

3. It is also used in printing press

4. It is used to make paints, enamel, glass pottery etc.

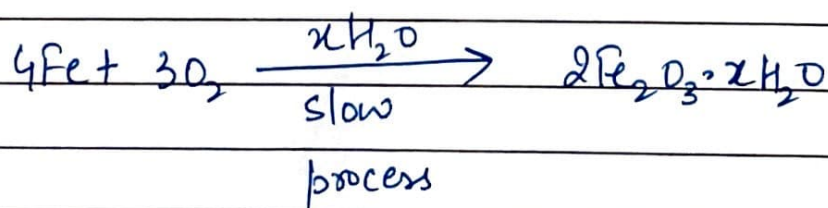
Inert or Noble gases:-

a) Helium (He):- It is used for filling up of weather observation balloons.

- b) Argon (Ar):- It is used for filling into electric bulb so as to provide inert atmosphere.
- c) Neon (Ne):- It is used in making advertising signboards & tubelights.
- d) Radon (Rn):- It is used for cancer treatment.
- e) Xenon (Xe) & Krypton (Kr):- They find application in photography.

Rusting of Iron:- Iron is a metal which gets easily corroded when exposed to moist air. It forms reddish brown layer known as rust. Rust is hydrated ferric oxide ($\text{Fe}_2\text{O}_3 \cdot x\text{H}_2\text{O}$).

Iron + Oxygen $\xrightarrow[\text{slow process}]{\text{Atmospheric moisture}}$ Hydrated Ferric oxide



The presence of acidic gases such as CO_2 , SO_2 , SO_3 & NO_2 in the air increases rate of rusting of iron.

Prevention from Rusting

1. By painting
2. ~~Graese~~ Grease or oil
3. Metallic coating
 - (i) Galvanization
 - (ii) Tin plating
 - (iii) Aluminum painting
 - (iv) Alloy formation
 - (v) Electroplating