

The Alkali Metals- Group 1 elements.

The group 1 elements are Lithium, Sodium, Potassium, Rubidium, Cesium, and Francium. They are univalent that they have one electron in their outermost shells and they form an ion by donating the one electron in their outermost shells.

- They easily lose electrons to become positively charged ions which are termed as electro positivity.
- They are very reactive and normally found in nature combined with other elements.
- They tarnish easily in the air by combining with oxygen in the air or water. They are therefore stored in inert liquids an example of such liquids is paraffin oil.
- They are electron donors that have powerful reducing agents and good conductors of heat and electricity.
- The malleable that is they can easily be beaten into shapes and ductile that is they can be drawn into thin wires.
- They are soft with a low melting point and density densities attack cold water with the liberation of hydrogen gas.

The Alkaline Earth Metals: Group 2.

Beryllium, Magnesium, Calcium Strontium, Barium and Radium

- Ionize by giving off two electrons.
- They have fixed an oxidation state.
- They are less reactive than alkali earth metals.
- They have a higher melting point.
- They are good conductors of heat and electricity.

Halogens: Group 7 elements.

- They are Fluorine, Chlorine Bromine Iodine, and Astatine.
- They exist as diatomic molecules except for Astatine which is radioactive.
- They react to gain one electron easily to form anions with an oxidation number of -1.
- They are strong oxidation agents. They do not conduct electricity because they are strong oxidizing agents.

Group O:

- They are called inert or noble gases. They include Helium, Neon, Argon Krypton Xenon and Radon.
- They are all monatomic gases.
- They are generally chemically inactive.
- They do not form compounds with other substances.

Helium is used to fill meteorological balloons.