



What is an electric charge? | Positive & negative charge

Electric charge is the property of certain particles either they attract or repel each other.

Types of electric charges

There are two types of electric charges

1. Positive charge
2. Negative charge

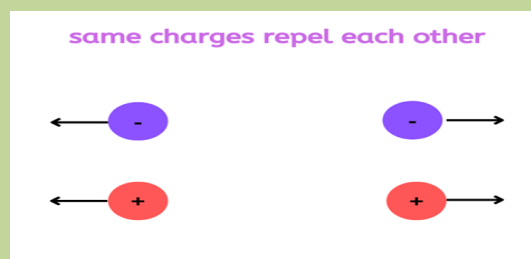
A positive charge is carried by the proton and a negative charge is carried by the electron.

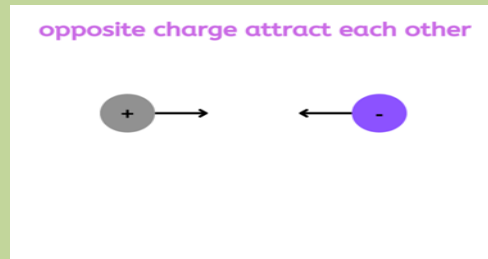
Symbol of electric charge

q

SI unit of electric charge

Coulomb





Properties of charges

- There are two types of charges (positive and negative)
- A particle having no charge is called a neutral particle
- Attraction and repulsion are due to the electric force
- The force which holds the positive and negative charges to make up atoms and molecules is called the electric force
- Our body is composed of atoms and molecules and our existence is due to the electric force

The first attempt to measure the force between the charges was made by a French military engineer Charles Coulomb in 1786 AD. He deduced [Coulomb's law](#) after many experiments. This law states that

“The force of attraction or repulsion between two charges is directly proportional to the product of magnitudes of charges and inversely proportional to the square of the distance between them”

Methods of charging

We can charge a particle by three methods

1. Friction
2. Conduction

3. Induction

Charging by friction

We can charge a particle by rubbing it against another object. One of the objects emits an electron and the other object acquires an electron. Objects that lose electrons are positively charged, and objects that gain electrons are negatively charged.

Charging by conduction

The method of bringing an uncharged object closer to a charged object to charge it is known as conduction charging. Charged conductors do not have the same number of protons and electrons. Therefore, bringing an uncharged conductor closer will emit electrons and stabilize them

Charging by induction

The process of charging an uncharged conductor by bringing it close to a charged conductor without any physical contact is known as inductive charging.

