

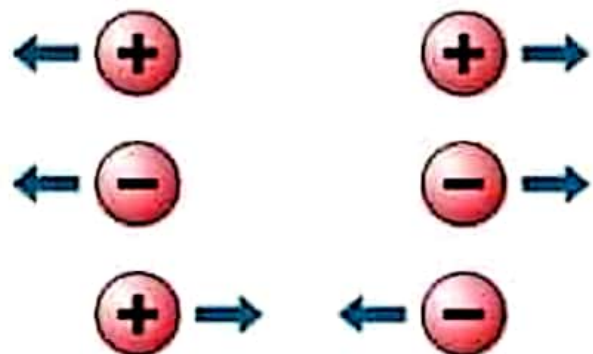
Basic Properties of Charge

- Electric charges are additive
- Charge is a conserved quantity, i.e. it can neither be created nor be destroyed
- Quantization of Charge



Electric Charge

- Amount of current flowing in a conductor is measured in electric charge
- The SI unit of electric charge is 1 Coulomb
- Electric charge is a scalar and fundamental quantity of a particle
- Like charges repel and unlike charges attract each other



Electric Charges are additive

- We can add electric charges to get overall charge on the system
- If system has two charges q_1 and q_2 then total charge of the system will be $q_1 + q_2$



Quantization of Charge

- Charge of a system is integral multiple of basic electric charge on an electron or proton (e)
- $q = ne$ is the general form of quantization of charge where q is the charge, n is the number of electrons/protons and e is electric charge on an electron/proton ($1.6 \times 10^{-19}\text{C}$)

