

S.T.D.G.Δ College, Shahpur

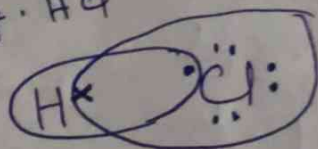
Chemistry-SEM-1 - MIC-1

BY DR. MANOJ K R

Continue Chemical BondingTypes of covalent Bond

Covalent bonds are classified into different types based on the no. of shared electron pair and their polarity.

- (1) Single bond : In this type of covalent bond one pair of electron shared i.e. (total 2 electron) and 1 electron from each atom
eg. HCl



H-Cl Here Hydrogen share electron to chlorine and chlorine also share one electron to Hydrogen i.e. 1-equal sharing occurring and single bond formed between them.

- (2) Double bond : - In this type of covalent bond 2-electron shared between atoms.

eg. O_2



$O=O$ Here two electron of oxygen sharing between them and formed double bond

(3) Triple Bond : 3 + 3 is formed by the mutual sharing of 3-electron

eg. N_2



$N \equiv N$ Here 3n N_2 3-electron sharing occurred and formed triple bond

Classification Based on polarity

(a) Non polar covalent bond:- electrons are shared equally between atoms because the bonded atoms have similar or identical electronegativities.
eg. Cl_2 or H_2

(b) polar covalent bond:- Electrons are shared unequally because one atom has higher electronegativity than the other.
eg. H_2 or HCl .

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