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# SOME BASIC PRINCIPLES AND TECHNIQUES

CHEMISTRY, CLASS-XI, UNIT-12, LECTURE-2

08 Dec. 2020, session 2020-22

General Introduction continued...

## \* Definition of Organic compound : ---

Organic compound is compound of carbon with Hydrogen (essentially) and/or other non-metal like O, N, X, S, P etc occasionally.

(X = Cl, Br, I, F)

\* Very few organic compound contains metal.

viz.

- \* Haemoglobin contain 'Fe' metal
- \* Chlorophyll contain 'Mg' metal
- \* Blue blood of some mollusca is due to 'Cu' metal
- \* Vitamin B<sub>12</sub> (cyanocobalamin) contains cobalt (Co) metal.

Hydrocarbon :- The organic compound which have carbon and hydrogen only is called Hydrocarbon.



\* Organic compound which have any other elements in addition to carbon and hydrogen is called derivatives of Hydrocarbon.

Thus, Organic chemistry is the branch of Chemistry which deals about Hydrocarbon and their derivatives.

### Sigma ( $\sigma$ ) covalent bond

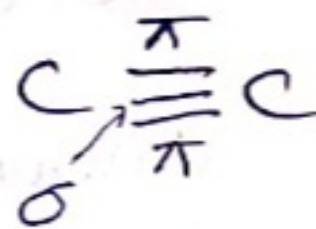
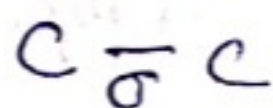
The covalent bond formed due to coaxial (head to head) overlapping of atomic orbital.

### Pi ( $\pi$ ) covalent bond

\* ' $\pi$ '-bond is formed by lateral overlapping (side by side) of atomic orbital.

\*  $\pi$ -bond is formed only after the formation of a  $\sigma$ -bond.

\* ' $\pi$ '-bond is weaker than ' $\sigma$ '-bond.



To be continued  
in next lecture...