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TENDER HEART HIGH SCHOOL, SEC-33B, CHD.

CLASS- IX
CHAPTER- 2

SUBJECT- CHEMISTRY
TEACHER- ANAMIKA

11.11.24

Q Explain why CCl_4 does not dissolve in water?

Ans:- CCl_4 is non-polar compound and water is polar Compound and ~~therefor~~ Polar dissolves in polar compound and Non-polar dissolve in non-polar. Therefore, CCl_4 does not dissolve in water.

Q:- There are three elements E, F, G with atomic number 19, 18 and 17 respectively. Give the molecular formula of compound formed b/w E and G and state the type of chemical bond.

Ans:-

Element	At. No.	Electronic Configuration
E	19	2, 8, 8, 1
F	18	2, 8, 8
G	17	2, 8, 7

Formula of E + G = EG
and the bond b/w them is ionic bond.

Q:- Explain:-

a) Oxidation and reduction in terms of loss of e-

b) Formation of electrovalent Compound is a redox reaction.

Ans:- a) Oxidation:- It is the loss of e^-

e.g.

$$Na \longrightarrow Na^+ + e^-$$
$$(2,8,1) \qquad (2,8)$$

Oxidation

Reduction:- It is gain of e^-

$$Cl + e^- \longrightarrow Cl^-$$
$$(2,8,7) \qquad (2,8,8)$$

b) Electrovalent Compound is formed by transfer of electron or one element losses e^- and other element gain this e^-.

e.g.

NaCl is ionic bond It is formed like

$$Na \longrightarrow Na^+ + e^-$$
$$(2,8,1) \qquad (2,8)$$

Oxidation

∴ Formation of Cation is oxidation

Whereas

$$Cl + e^- \longrightarrow Cl^-$$
$$(2,8,7) \qquad (2,8,8)$$

Reduction

∴ Formation of anion is Reduction

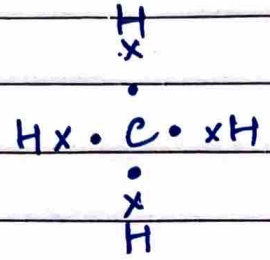
It is clear from the above example both oxidation and reduction take place in the formation of ionic bond.

Q:- a) Explain bonding in methane molecule using electron dot structure.

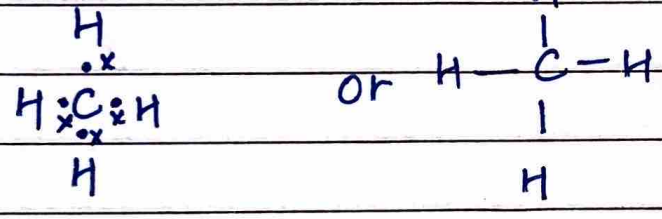
b) Methane molecule is non-polar molecule. Explain

Ans:-

a) Before combination



After combination



b) The electronegativity of carbon and hydrogen has very less difference. Therefore, shared pair of e^- are equally distributed. Hence, it is non-polar compound.