DP VIPRA COLLEGE BILASPUR

SISSEON 2021-22

DEPARTMENT OF CHEMISTRY

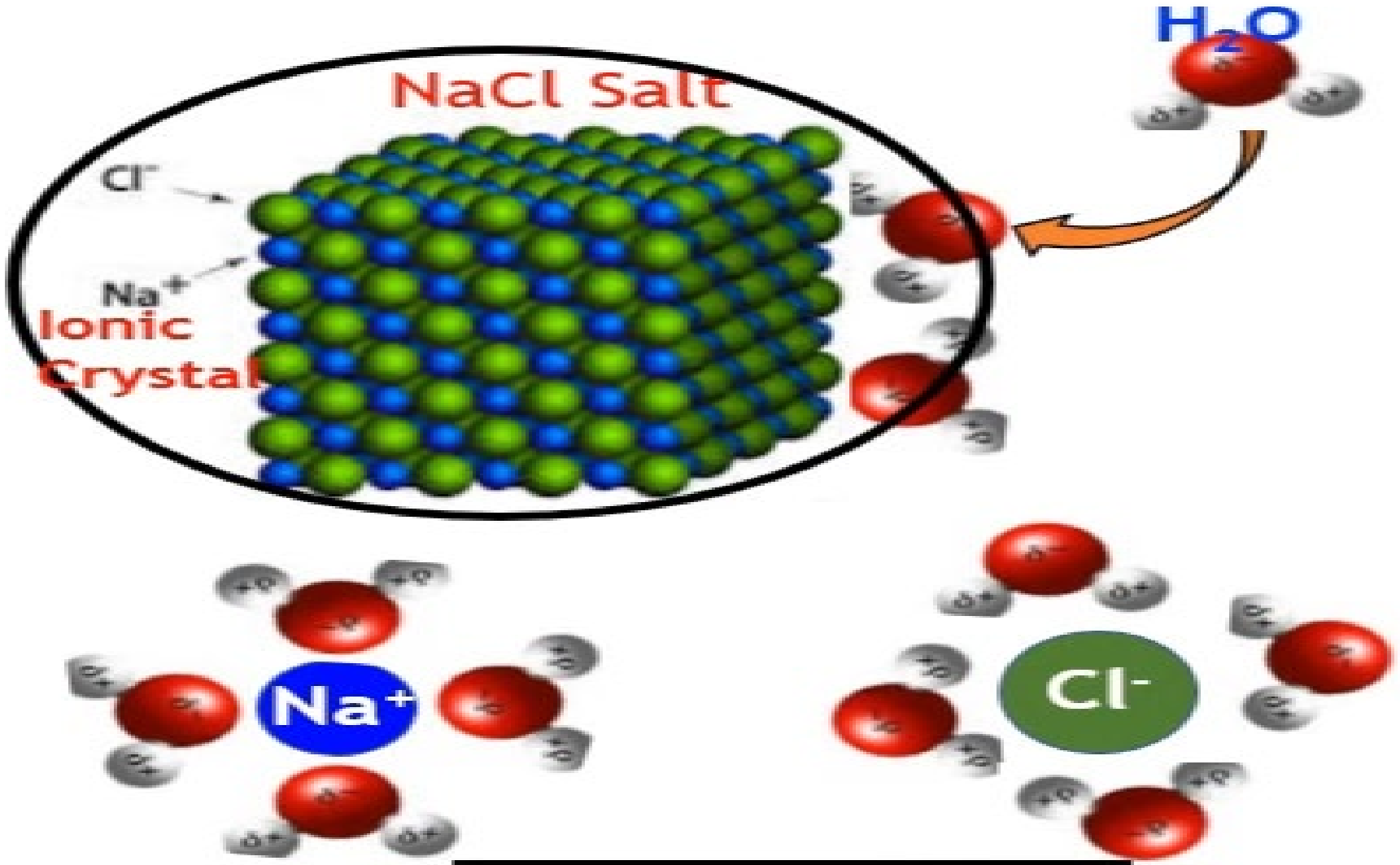
ION SOLVENT INTERECTION

* INTRODUCTION OF ION SOLVENT INTERECTION
* MECHANISM OF ION SOLVENT INTERECTION

Introducation of ion –solvent interaction

Ion are the species or atom . Molecule having a charge (either+ve or –ve) due to the gain or loss of electron.

- So when this ionic species comes to the contact of a solvent (polar solvent) at the ion solvent such type of interaction is known as ion solvent interaction.
- This type of interaction is also known as ion dipole interaction.
- Lets expeain this interaction with the help of very common example of Nacl and water.



Ions in Solution

An Ion enveloped by a sheath of oriented solvent molecules due to ion-dipolar forces

Mechanism of ion solvent interaction

- The solvent molecule collide with the walls of the crystal.
- Thus it gives the ion in the crystal lattice a batter deal energytically

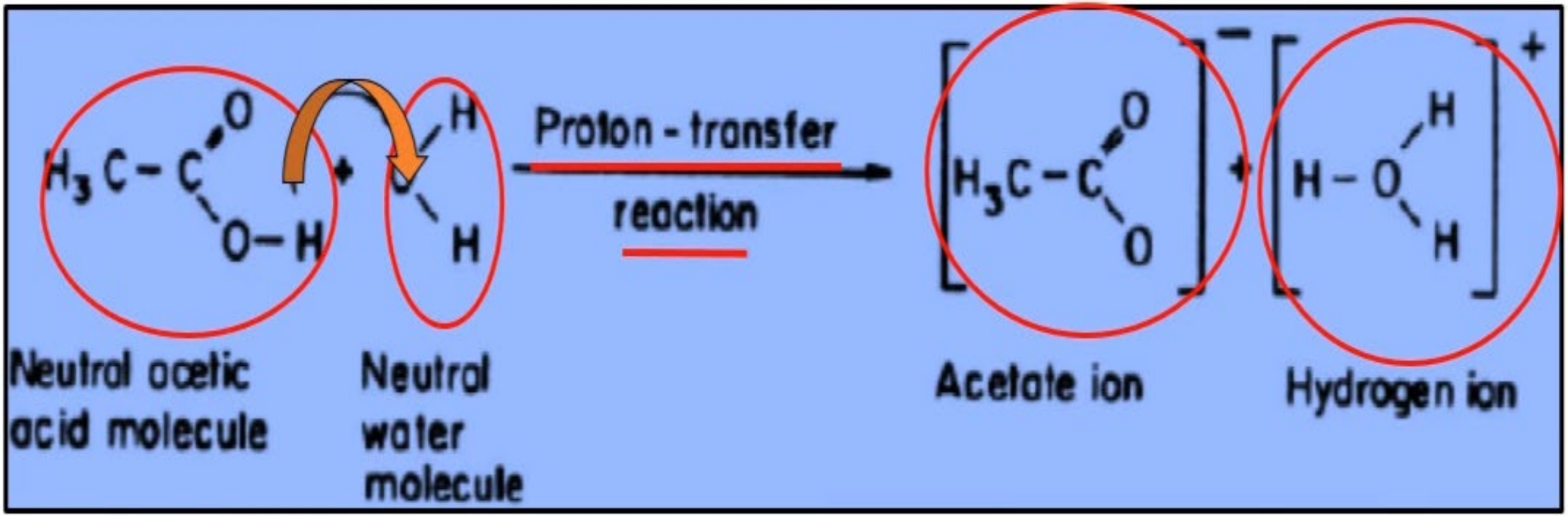
  Then they have when are.
- An ionic compound consists of two oppositely charged ions (+ion, -ion).
- Water on the other hand is a pollar solvent (the electronegativity difference between oxygen and hydrogen is high which is why water has a positive poler of H and A negative (water is H_2O).
- This results in the formation of a unique arrangement colled the hydration.

- Hydration releases energy.which is known as the hydration energy.

- If the hydration energy of an ionic compound more then its lattice energy. The lattice is broken and the ions in the compound separate. Causing the compound to dissolve.

In case of weak electron of acetic acid

It applies ion formation in a solvent where the solute is neutrol molecular.



- A characterist of solution formed in this way is usually fraction of smoll ionic concentration.

- It offers -0.1% solute molecules are ionized.

THANK YOU