

PHARMACEUTICAL ANALYSIS – BP102T

UNIT: IV REDOX TITRATIONS

CLASS:31

TOIPC: INTRODUCTION OF REDOX TITRATIONS

Oxidation:

It is a part of oxidation and reduction,

when electron is lost or the oxidation state will be increased the combination of a substance with oxygen.

A reaction in which the atoms of an element lose electrons and the valence of the element is correspondingly increased.

A substance is oxidized if it gains oxygen, loses hydrogen, or loses electrons.

A chemical reaction involving loss of electrons. In the human body, oxidation occurs when breathed-in oxygen combines with molecules in food to produce energy, water, and carbon dioxide.

Reduction:

It is a part of oxidation -reduction reaction, where electron is gained as the oxidation state, the valency will be decreased.

Oxidizing agents:

These are substances containing the elements that accept electrons, allowing other elements to oxidized by accepting electrons.

it is a substance which oxidizes other substances and itself it undergoes reduction.

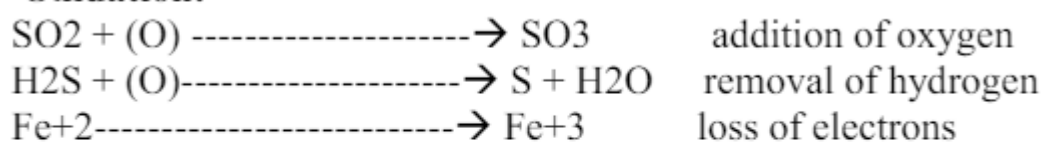
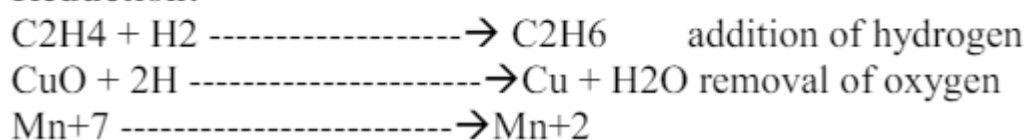
Example: KMnO_4 , KBrO_3 , KIO_3 , Iodine.

Reducing agents:

These are substances which reduces other substances and itself it undergoes oxidation

Example: FeSO₄, Oxalic acid, Ferric ammonium sulphate

Reducing agents are substances containing the elements that donate electrons, allowing other elements to be reduced

Oxidation:**Reduction:****Very Short Answer Questions**

1. Define oxidation and reduction reactions
2. What are redox titrations
3. Write the difference between oxidation and reduction
4. Define Oxidising and reducing agents with examples
5. Write Redox Potential