

PHARMACEUTICAL ANALYSIS – BP102T

UNIT: IV REDOX TITRATIONS

CLASS:32

TOIPC: **PERMANGANOMETRY**

Types of redox titrations:

1. Permanganometry titration
2. Dichrometry titration
3. Cerimetry titration
4. Iodo/iodimetry titration
5. Bromatometry titration
6. Titrations with potassium iodate.

1.Permanganometry titration:

Such type of reactions where we use KMnO_4 such type of reactions is known as permanganometry titrations.

The KMnO_4 should be standardized with primary standard like Oxalic acid

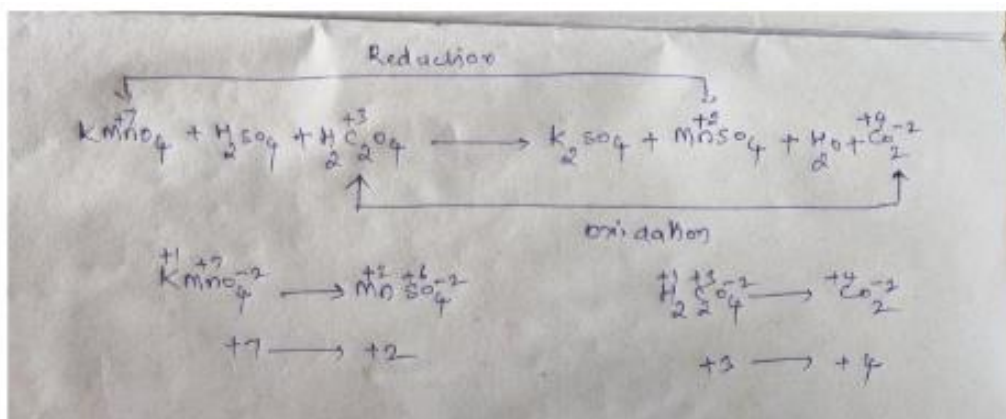
Principle:

KMnO_4 is strong oxidizing agent.

In the presence of acidic medium, it reduces itself and oxidizes other substances. It is acting as a self-indicator because of intense colour

Standardization of 0.1M KMnO_4

Take 20 ml of 0.1N oxalic acid in a conical flask and add 5 ml of 1N H_2SO_4 and heat upto 70° and then titrates with KMnO_4 which is taken in burette until permanent pink colour appears

**Limitations:**

KMnO₄ is not available in pure form and it contains manganese dioxide as an impurity if we use ordinary water and that manganese dioxide is responsible for decomposition of KMnO₄

Remedy:

KMnO₄ is prepared and heated for 1 hour and transfer to amber coloured bottle and keep aside for 2 days.

Very Short Answer Questions

1. Define Permanganometry
2. Write the limitations of Permanganometry

Short Answer Questions

1. Explain in detail about Permanganometry and its applications.