

EXPERIMENT NO -18

OBJECT: To perform assay of iodine IP.

REFERENCE

1. Singh H.R., Kapoor V.K. "Practical Pharmaceutical chemistry", Vallabh Prakashan, Ed 1st, 2008, pp 19-20.
2. Chatwal GR, "Pharmaceutical chemistry inorganic" Himalaya publishing house, Ed 5th, 2010, pp 256-257

STANDARDS

Iodine contains nlt 99.5% and nmt 100.5% of I.

REQUIREMENTS

Chemical required: Iodine , potassium iodide, 2 M acetic acid, 0.1 M sodium thiosulphate solution, starch solution

Apparatus required: Iodine flask, burette, pipette, beaker, etc.

THEORY

This is an iodometric type of oxidation-reduction titration. In this titration iodine solution is used as oxidizing agent while sodium thiosulphate solution is used as reducing agent.



PROCEDURE

Weigh accurately about 0.2 gm of iodine by method of difference. Transfer it to an iodine flask containing 1 gm of potassium iodide and 2 ml of water. Add 1 ml of 2M acetic acid. Dissolve completely and add 50 ml of water. Titrate with 0.1 M sodium thiosulphate solution. When the solution in the conical flask becomes pale yellow add 2ml of starch solution. Continue titration until it becomes colourless. Note the burette reading.

RESULT:

The percentage purity of I in the given sample of iodine is % w/w.