

Experiment

Assay of Chloroquine

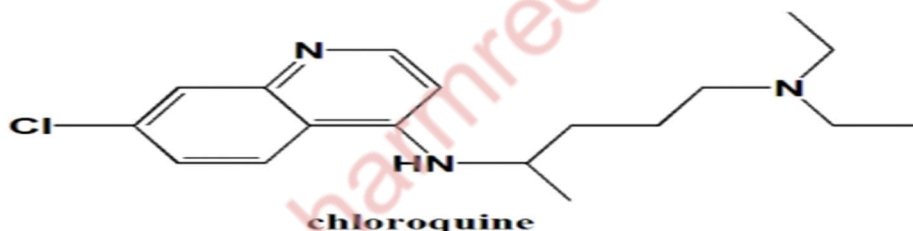
Aim:- To perform the Assay of Chloroquine.

Requirement;-

- **Chemicals-** anhydrous glacial acetic acid, 0.1M perchloric acid solution, chloroquine tablet.
- **Glassware-** conical flask, Measuring cylinder, beaker.
- **Equipment-** reflux condenser, digital weighing balance.

Theory;-

Chloroquine is an antiparasitic medication that treats malaria. It works by increasing the levels of haeme in the blood, a substance toxic to the malarial parasite. This kills the parasite and stops the infection from spreading. Chloroquine comes in tablet form as the phosphate, sulfate, and hydrochloride salts. Chloroquine is usually dispensed as the phosphate. Brand names include Chloroquine FNA, Resochin, Dawaquin, and Lariago.



Procedure;-

Dissolve about 0.23 g, accurately weighed, in 20 mL of glacial acetic acid R1 with the aid of heat (if necessary preferably heat under reflux condenser), cool and add 20 mL of dioxan R. Titrate with perchloric acid (0.1 mol/l) VS as described under 2

Factor;-

Each ml of 0.1M per chloric acid is equivalent to 0.02579g of C₁₈H₂₆ClN₃, 2H₃PO₄.

Calculation;-

% purity of chloroquine = volume of titrant x molarity x equivalent factor (wt of sample x 100).

Result;- The % purity of chloroquine was found to be