**Disscution and solution for the second exp 2**

**1- Why the experiments are done in a dark place?**

**A\ This is because the salt is very sensitive to light.**

 **The silver chloride is precipitate in a white color and when exposed to light it turns into a silver color precipitate because it is reduced into free silver.**

 **Light**

**AgCl Ag + ½ Cl2**

**2- The diluted nitric acid is used as a washing agent for the residue and does not use diluted hydrochloric acid?**

**A\ This is because dilute hydrochloric acid lead to the formation a soluble complex with silver [AgCl4 ]-3  Therefore, dilute nitric acid is used to wash the precipitate.**

**3- What are the specifications of the formed silver chloride precipitate?**

**A\ White precipitate, very sensitive to light and its solubility is low in water and this solubility increase when the temperature increase.**

**4- The precipitate filtration is done at room temperature or less?**

**A\ This is because the solubility of the precipitate is increased by increasing the temperature.**

**5- What is the weight of the precipitate obtained from a (1) gram weight sample, if you know that the percentage of chlorine ion which was precipitated on the form of the silver chloride is (19.2%) and the weight of the chlorine ion is (0.1) g ?**

 **the atomic weight for Ag=108,cl=35.5**

**wt of cl = G.F × wt of AgCl**

**0.1 = A.Wt of Cl × Wt of AgCl**

 **M.Wt of AgCl**

 **35.5**

**0.1 = × Wt.AgCl**

 **108+35.5**

**Wt of AgCl = 0.8 g**