Solubility Product Constant
Part II – Solubility Product Constant (*Ksp*) of Ag_2CrO_4

Procedure:

1. In a 100 mL beaker, add about 5 mL of 0.004 M $AgNO_3$ and about 5 mL of 0.020 M K_2CrO_4 solutions. Mix well.
2. Add mixture to two test tubes and centrifuge. Discard the filtrate (liquid).
3. Wash the solid twice with deionized water. Each time, centrifuge and discard the wash water.
4. Fill each test tube about 3/4 full with deionized water and stir for 5 minutes.
5. Centrifuge. Pour the filtrate (liquid) into two clean and dry spectrophotometer measuring cells.
6. Measure the absorbance of each sample at 375 nm.
7. Estimate $[CrO_4^{2-}]$ from your calibration curve and calculate the *Ksp* for Ag_2CrO_4.

Data:

Absorbance at 375 nm 0.285 _____

Results:

Ksp = $[Ag^+]^2$ x $[CrO_4^{2-}]$ = 1.26×10^{-12}