

Determination of K_{sp} Postlab

Please do not give short (one or two word answers) to the questions.

ALL Answers must be written by hand directly into your lab notebooks.

1. A solution is prepared by mixing 34.2 mL of 0.050 M Sc^{3+} with 60.1 mL of 0.050 M OH^- . After mixing, a precipitate of $\text{Sc}(\text{OH})_3$ settles out and the resulting solution is found spectrophotometrically to be 0.01370 M in Sc^{3+} . Determine the K_{sp} of $\text{Sc}(\text{OH})_3$.
2. AgCl is very insoluble in water ($K_{sp} = 1.6 \times 10^{-10}$) but when sodium cyanide (NaCN) is added, it dissolves readily. Propose a reasoning for this. Hint: Use the following equation to find your answer.

