

Equilibria and Titrations

1) What mass of nickel sulfide (NiS ; $\text{FW}=90.759$) can be dissolved in 5 L of water if the K_{sp} is 1.3×10^{-25} ?

2) A mixture of sodium oxalate ($\text{Na}_2\text{C}_2\text{O}_4$; $\text{FW}=101.9997$) and sodium monoxalate (NaHC_2O_4 ; $\text{FW}=80.0179$) weighed 1.578 g and was titrated to excess with 48.01 mL of 0.522 M HCl. The excess HCl was titrated with 0.7435 M NaOH and needed 3.98 mL of NaOH to be neutralized. What was the weight percent of each of the two compounds in the original sample?