Chem II AP

Gravimetric Analysis In-Class Examples

- 5.000 g of an impure sample of NaCl was dissolved in water to give a 100.0 mL solution. 10.00 mL of the solution yields 1.080 g $PbCl_2$ when mixed with a solution of excess $Pb(NO_3)_2$. What is the mass percent of NaCl in the original sample?

- Calculate the volume of a 0.550 M NaCl(aq) solution that must be added to 1.50 L of a 0.100 M $AgNO_3$ solution to precipitate all of the Ag^+ ions in the form of AgCl.

- When NaF(aq) and $Pb(NO_3)_2$ (aq) are mixed, PbF_2 precipitates. What mass of PbF_2 is formed when 0.800 L of 0.500 M $Pb(NO_3)_2$ (aq) and 2.00 L of 0.0250 M NaF are mixed?

Answers: 90.78% NaCl; 0.273 L 0.550 M NaCl(aq); 6.13 g PbF_2