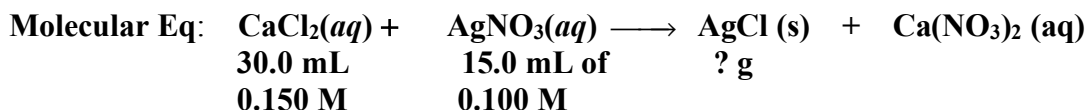


**Chem 2 AP Homework #4-6: Gravimetric Analysis (Problems from text pg. 155 # 76 – 80)
and Predicting Products Review**

4.76 Distilled water (not tap water) must be used in the gravimetric analysis of chlorides. Why?

4.77 If 30.0 mL of 0.150 M CaCl₂ is added to 15.0 ml of 0.100 M AgNO₃, what is the mass in grams of AgCl precipitate?



Net Ionic Eq

**4.78 0.6760 g Ba²⁺ compound with excess Na₂SO₄ → 0.4105 g BaSO₄.
What is the mass % of Ba in the original compound?**

Net Ionic Eq:

4.79 Mass of NaCl required to precipitate Ag⁺ from 2.50×10² mL of 0.0113 M AgNO₃?

Net Ionic Eq:

4.80 What is [Cu²⁺] in water sample if treatment with excess Na₂S yields 0.0177 g CuS(s)?

Net Ionic Eq:

Predicting Products Review For each question, assume that a reaction takes place and write out the molecular equation and net ionic equation (if one can be written.) If asked, determine if reaction would occur and explain logic.

- 1) Aqueous lead(II) nitrate is added to aqueous aluminum chloride (*Is this a redox reaction?* _____)

Mol. Eq:

Net Ionic:

- 2) Calcium metal is added to water. (*Is this a redox reaction?* _____)

Mol. Eq:

Net Ionic:

Does this reaction occur? _____ *Explain how you know.*

- 3) Silver wire is immersed in aqueous sulfuric acid. (*Is this a redox reaction?* _____)

Mol. Eq:

Net Ionic:

Does this reaction occur? _____ *Explain how you know.*

- 4) Chlorine gas is bubbled through an aqueous solution of potassium fluoride. (*Is this a redox rxn?* _____)

Mol. Eq:

Net Ionic:

Does this reaction occur? _____ *Explain how you know.*

- 5) An aqueous solution of lithium hydroxide is mixed with an aqueous solution of phosphoric acid. (*Redox* _____?)

Mol Eq:

Net Ionic:

- 6) Aluminum metal is placed into an aqueous solution of lead (II) nitrate. (*Is this a redox rxn?* _____)

Mol Eq:

Net Ionic:

Does this reaction occur? _____ *Explain how you know.*

- 7) Aqueous solutions of ammonium chloride and cobalt(II) sulfate are mixed. (*Is this a redox rxn?* _____)

Mol Eq:

Net Ionic: