Experiment 11

Precipitates & Ionic Equations

Name _____ Per ___

Purpose: To **mix solutions**, **find precipitates**, and **write ionic equations for the precipitates**.

Procedure: We shall be working with two sets of six solutions, one set at a time. **It is imperative that the chemicals in each set not be mixed up with those in other sets. To prevent accidents, each set of six is to be kept tightly together, cozy, and far removed from the other sets**. We shall choose sets such that our neighbors are using different ones so that we may all enjoy observing the beautiful precipitates of all of the sets.

I. Choose a set, keep it cozy and away from the other sets. Using the blank student grid on the next page, list the six formulae of the solutions across the top and the down the side like shown in the sample grid.

Sample Grid:

II. Place a clean, dry, glass plate on the lab table. Drip **one drop quantities** of each reagent onto the glass in the same pattern as on your grid. When you have finished, **one drop** of each solution will have been mixed with **one drop** of all of the other solutions.

A precipitate is a solid formed in a reaction. It will appear as cloudy particles in the mixed drops.
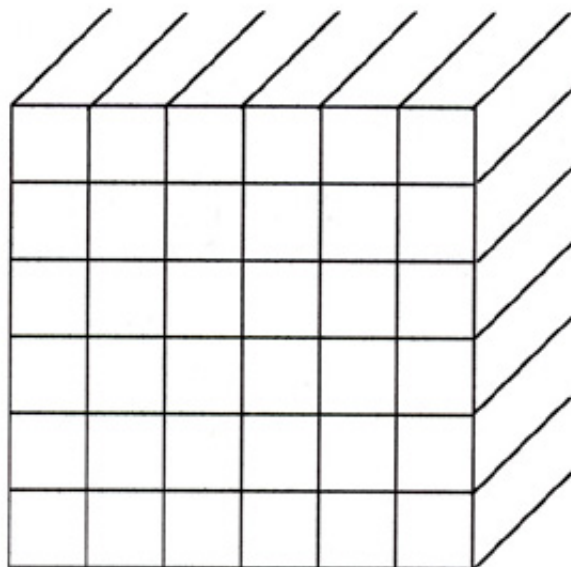
III. Where a precipitate has formed, mark your grid with **ppt** in the appropriate square. See the sample grid above.

IV. Repeat all of the steps above with **another set** using the second student grid below.

V. Write **net ionic equations** for **each precipitate formed**. Do not write duplicate reactions.
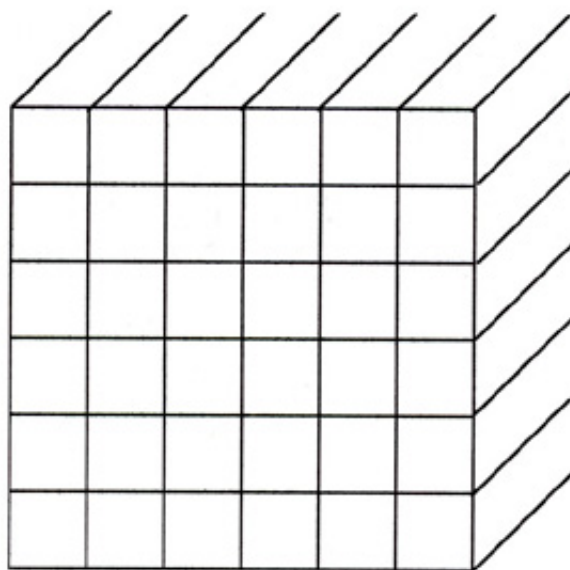
Sample Ionic Equation: $Co^{+2}_{(aq)} + SO_4^{-2}_{(aq)} ---> CoSO_{4\ (s)}$
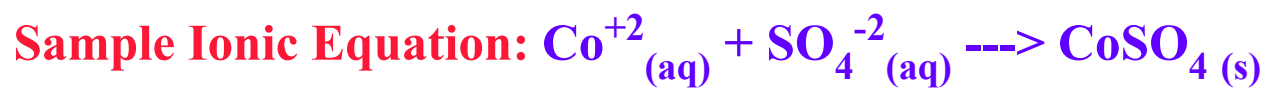
Student Grid for your first set:

Write your NET IONIC equations here (example): $2\ Fe^{+3}_{(aq)} + 3\ SO_4^{-2}_{(aq)} ---> Fe_2(SO_4)_{3(s)}$

-
-
-
-
-
-
-
-
-
-
-

Student Grid for your second set:

Write your **NET IONIC** equations here (example): $Al^{+3}_{(aq)} + 3\ NO_3^{-1}_{(aq)} \longrightarrow Al(NO_3)_{3\ (s)}$

-
-
-
-
-
-
-
-
-

VI. Write a critique for this lab.