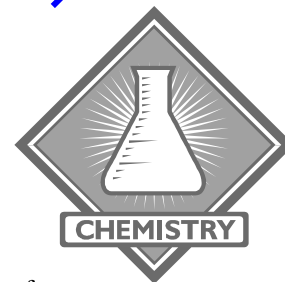


Names: _____

15 Pts.

Chemistry Mini-Lab: The 4 Bottles Experiment



I. Purpose:

To observe a chemical reaction and predict the identity of the products formed in a reaction. Distinguish between soluble and an insoluble precipitate.

II. Procedure:

1. At the front bench are four lettered bottles that each contain a dissolved salt. These four salts are cobalt(II) chloride, sodium hydroxide, iron(II) chloride, and ammonium carbonate.
2. Obtain four clean small beakers and label them A, B, C, and D
3. Pour about 15 ml of each solution into the appropriate beakers. You can get more solution if you run out, these tests are entirely qualitative; (i.e., a little drop does the same as a large amount. Conserve the amount you use)
4. With a test tube rack and clean test tubes design an experiment that determines the identity of the salt in each bottle.

III. Analysis:

Data: Use this table to summarize your *observations*.

	Bottle A	Bottle B	Bottle C	Bottle D
Bottle A				
Bottle B				
Bottle C				
Bottle D				

IV. Conclusion Questions:

1. What is the identity of bottles 1 through 4?

Bottle A: _____

Bottle C: _____

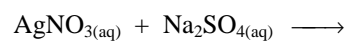
Bottle B: _____

Bottle D: _____

2. For each combination that produced a precipitate write a balanced equation that *includes phase notation*.

Each member of your group must complete one of the following equations:
Write a balanced equation that includes phase notation for the following reactions:

a.) Lab Partner: _____



b.) Lab Partner: _____



c.) Lab Partner: _____

