

**Objectives:**

1. To mix several pairs of solutions together and then note whether any precipitates form.
2. To deduce, from experimental results, which combinations of ions form precipitates.
3. To write a balanced formula equation, complete ionic equation and net ionic equation for each precipitation reaction.

**Safety:**

- Wash any spills and splashes immediately with plenty of water.
- Notify your instructor.

**Procedure:**

1. Place a drop of one solution on the spot plate and add a drop of a second solution to it. Your observation will be enhanced if you place the glass square over a dark surface.
2. If a precipitate forms (a solid), record this result in the table below by writing "**ppt**" in the appropriate square, along with the **colour** of the precipitate. If no precipitate forms, simply mark a dash (-) in the square.
3. Repeat the above steps until all possible combinations of solutions have been tested.
4. Rinse out all equipment and dry the glass square with a paper towel.
5. Wash your hands thoroughly with soap and water.

**Analysis:****For each different precipitation, write the following:**

- a) Balanced formula equation
- b) Complete net ionic equation
- c) Net ionic equation
- d) Identify the solid that was formed
- e) Identify the spectators ions

## Solutions I:

Fill in the grey boxes of the table with the IONS from each solution that are available to you.

Solutions Used						

How many precipitates did you observe? \_\_\_\_\_

**Analysis:**

## Solutions II:

Fill in the grey boxes of the table with the IONS from each solution that are available to you.

Solutions Used						

How many precipitates did you observe? \_\_\_\_\_

**Analysis:**

### Solutions III:

Fill in the grey boxes of the table with the IONS from each solution that are available to you.

Solutions Used						

How many precipitates did you observe? \_\_\_\_\_

**Analysis:**