

Objectives: In this laboratory activity, you will: start 9 double replacement reactions, observe any precipitates that form, and then use table F to balance and provide phase symbols to these 9 reactions.

Directions:

- Lay the sheet with the boxes on a flat table surface. Place a plastic sheet over it.
- In each of the squares: put 2 drops of both of the aqueous solutions in each square.
- NEVER EVER MIX CHEMICALS, or TOUCH DROPPER TO THE SHEET!!
- Observe carefully on the white sheet, and on the black table top, for precipitates.
Once you have finished trash the plastic sheets. Clean your lab area up.

Six Lab Questions

1. Explain the “KB square dance” reference that explains how a double replacement reaction happen.
2. Describe what happens when sodium chloride is put into water. Try to include “The solution contains loose...” Would this solution conduct electricity? Include the chemical symbols (look on table I for a hint for this).
3. Describe what happens when table sugar ($C_{12}H_{22}O_{11}$) dissolves into water. Try to include “The solution contains loose..., but does not contain any...” How is this different than ionic compounds like NaCl that dissolve in water? Would this solution conduct electricity?
4. Describe what happens when you put calcium sulfate into water. Why would it NOT dissolve? Would this conduct electricity? How is this different than when NaCl solid goes into water?
5. Write a balanced chemical equation with phases for the double replacement reaction between ammonium phosphate and niobium (V) nitrate solutions.
6. Write a balanced chemical equation with phases for the double replacement reaction between the two aqueous solutions of lead (II) acetate and sodium bromide.

This lab report	Includes	points
Cover	Title, optional drawing, single sentence explaining what you did today.	1
1	9 balanced chemical reactions with phases	9
2	6 lab questions - above (do them on loose leaf paper)	6
Conclusion	Name the 6 main indicators of chemical reactions Explain what this means: $AQ + AQ \rightarrow \text{diff } AQ + S$ Explain what this means: $AQ + AQ \rightarrow \text{diff } AQ + \text{diff } AQ$ Then tell how and why we use Table F. Define electrolytic solution + give 3 examples of electrolyte solutions. Name 3 aqueous solutions, and 3 ionic compounds that <u>do not</u> dissolve in water.	9
THIS LAB REPORT IS DUE _____		25

REACTION BOX	BALANCED EQUATIONS PHASE SYMBOLS MANDATORY IN ALL BALANCED EQUATIONS
A	
B	
C	
D	
E	
F	
G	
H	
I	

DO YOUR REACTIONS ON HERE	Copper (II) sulfate	Magnesium nitrate	Cobalt (II) nitrate
sodium carbonate	A	B	C
sodium phosphate	D	E	F
ammonium hydroxide	G	H	I