

## Experiment 10

### Pre laboratory Problems

Name \_\_\_\_\_

- What is the net ionic equation of solid  $K_2SO_4$  dissolving in water?
- What type of compound or element (ionic, non metallic, metallic or covalent) are the following materials:

a. Glass (mostly $SiO_2$ )	_____	g. HCl	_____
b. Graphite in pencil lead	_____	h. $(NH_4)_2SO_4$	_____
c. Aluminum	_____	i. AgCl	_____
d. Copper	_____	j. $HC_2H_3O_2$	_____
e. Solid NaCl	_____	k. $C_{12}H_{22}O_{11}$	_____
f. $K_2SO_4$	_____	l. HOH	_____
- Explain how you can quickly differentiate between electrolytes and nonelectrolytes?
- Predict the conductivity of the following substances: (Use SE, WE, or NE for strong, weak, or non-electrolytes for solution, use conductor/semi or non conductor for solids)

a. Glass	_____	g. 0.1 M HCl	_____
b. Graphite in pencil lead	_____	h. 0.1 M $(NH_4)_2SO_4$	_____
c. Aluminum	_____	i. 0.1 M AgCl	_____
d. Copper	_____	j. 0.1 M $HC_2H_3O_2$	_____
e. Solid NaCl	_____	k. 0.1 M $C_{12}H_{22}O_{11}$	_____
f. 0.1 M $K_2SO_4$	_____	l. HOH	_____
- In part D, two reactions will be performed. What is the balanced reaction of  $Ca(OH)_2$  and  $H_3PO_4$ ?