

IONIC BONDING- Does it blink?

Lab writeup: Print this paper and write in the theory (at least 3 properties of ionic compounds) and write a procedure summary in the blank area of the paper.

Theory: Ionic Bond Properties –

Safety Gear: gloves & goggles

Purpose: To predict which substances conduct electricity and show the correct electron dot structures for the formation of ionic compounds.

Procedure:

Part A. Formation of an Ionic Compound:

Obtain a piece of magnesium ribbon about 3 cm in length. Record the color, luster, and flexibility of the metal in your data section. Holding one end with the crucible tongs, ignite the other end in the burner flame.

CAUTION: Do not look directly at the Mg while it is burning; it can cause permanent damage to the retina. Allow the ashes to fall on the lab table and then put in the trash.

Part B. Electrical Conductivity

- Obtain a spotplate and clean in analytically.
 - Fill an open well with sodium chloride crystals.
 - Fill another well with deionized water.
 - Fill another well with sodium chloride solution.
- Take the 9V battery out of your conductivity test with your hands. Clean your conductivity tester by rubbing it with steel wool on the metal leads (sticking out of the PC board). Put the battery back in according to + and – pictures.
- Place the probes of the test into the sodium chloride. Repeat with DI water and then the sodium chloride solution.
- Repeat step 1 using sugar ($C_{12}H_{22}O_{11}$).

SUMMARY: (After reading the procedure, write a summary of what you will be doing)

Data Table: Observations

Part A: $Mg + O_2 \rightarrow MgO$

Before

during

After

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Part B. Electrical Conductivity

Substance to test

Observations

Does it blink? How?

Type of Compound

Molecular (M) or Ionic (I)

Substance to test	Observations	Does it blink? How?	Type of Compound Molecular (M) or Ionic (I)
NaCl			
NaCl solution			
$C_{12}H_{22}O_{11}$			
$C_{12}H_{22}O_{11}$ solution			
DI water			

