**Mystery Powder Lab**

**Procedure**

1. Obtain two reaction plates.
2. Using a marker or wax pencil, label each column of wells as follows: “BP”, “BS”, “CS”, and “TP”. Label each column of wells on the second plate as follows: “S”, “G”, “#1”, and “#2”.
3. Label the three rows or each plate as follows: “BR”, “AA”, and “LI”. Your reaction plates should look like this.

 **BP BS CS TP**

 **S G #1 #2**

**BR**

**AA**

**LI**

**BR**

**AA**

**LI**

1. Approach the “Powders station”. Place a small scoopful of each powder, including the two mystery powders, in each of the appropriately labeled wells. Be sure to place a sample in each of the three wells that will be used for testing.
2. Return to your work area. Record physical observations of each powder on the “Analysis Sheet”. Be sure to note any characteristics you can observe, for example is the substance powder or crystal? What color is the substance?
3. After recording your physical observations, place a couple of drops of Biuret Reagent in the first row (“BR”) of powders. Record in your analysis sheet your observations for each substance when exposed to the Biuret Reagent.
4. Repeat the above step using Acetic Acid in the appropriately labeled row. Again, be sure to record your results in the analysis sheet.
5. Perform the final analysis by replacing a couple of drops Lugol’s Iodine in the last row of powders. Record your results in the analysis sheet.
6. Examine your data for all of the known substance as well as the two unknown substances. Using your results, record what you believe the two unknown substances are in your analysis sheet.