

Nine Solution Problem Set Project

The purpose of this lab is to determine the identity of a set of unknown solutions using logic and critical thinking.

Procedure

1. Write a set of double replacement equations for your set of solutions. You should react every solution in your set with every other solution in your set. (Page 1)
2. Using a solubility table, determine which products from the above reactions will form precipitates. (Put a box around any insoluble product in part 1. Make a list on Page 2 of all insoluble products)
3. Use the Handbook of Chemistry and Physics to determine the colors of precipitates expected to form from your reactions. (Beside the insoluble product on page 2, write a description)
4. Make a data table in which to record your reaction observations (Type on Page 3).
5. Obtain your set of solutions and a 96 well reaction plate. Add a few drops of one chemical in your set to another chemical in your set. Record observations (type into data table). Be careful, record very specific data, eg. color change, bubble or gas formation.
6. Using data obtained from your research and your experimental data, identify each solution in your set. (Type on page 4)
7. Write up your formal lab report (Type on page 5)

Your project will be determined as follows:

I.	Set of equations (neat)	0-20 pts
II.	Solubility/Precipitate Data	0-20 pts
III.	Completed Data Table (Type)	0-20 pts
IV.	Conclusions (Type)	0-20 pts
V.	Formal Lab Report (Type)	0-20 pts