

Experiment 5 Worksheet: Polarity and Solubility: Halogen Reactions

Purpose: (A statement should be made here regarding what your experiment is designed to accomplish)

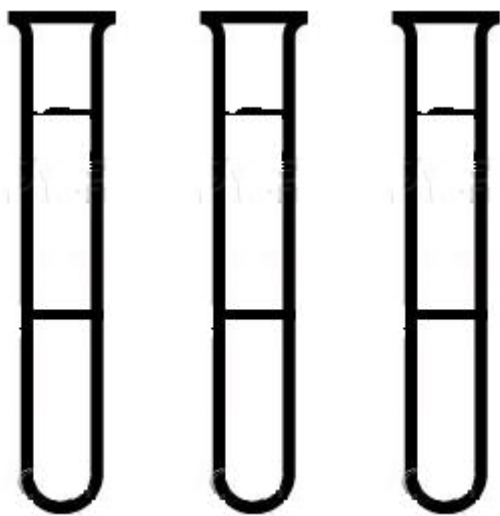
Procedure: (Describe here how you went about completing your experiment. Use enough detail that someone could repeat it if necessary. Also reference any books or manual you may have used to assist you.)

Data:

Solubility Testing: Indicate whether or not each halide salt was soluble (S) or insoluble (I).

Salt	Water	Hexane
NaCl		
NaBr		
NaI		

(Use crayons to show color of the halogen test results, be sure to label tubes according to what is in them)

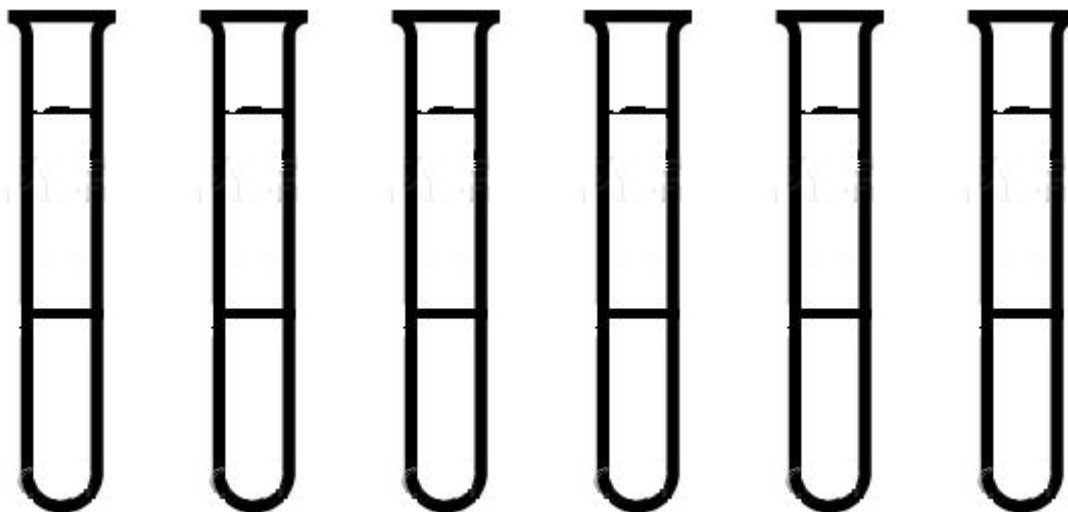


I₂

Br₂

Cl₂

Electronegativity Testing: (Use crayons to show color of test results, be sure to label tubes according to what is in them)



Calculations: (Use the results above to answer the following questions. Circle the correct answer where necessary.)

Halogens are soluble in Hexane / Water because they are Non-polar / Polar.

Halides are soluble in Hexane / Water because they are Non-polar / Polar.

Chlorine is More / Less Electronegative than Bromine.

Bromine is More / Less Electronegative than Iodine.

Chlorine is More / Less Electronegative than Iodine.

(Complete the following reactions, If no reaction write NR)



The most reactive halogen is Cl_2 / Br_2 / I_2

The most reactive halide is Cl^- / Br^- / I^-

Rank all of the halogens (including F_2) from most to least electronegative:

Conclusions: *(Summarize your results here and discuss possible errors that may have occurred during the testing. Explain your results in the calculations section and support those results using the data collected in the solubility and electronegativity testing.)*
