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Periodic Trends Procedure

Part A:

In the following reactions, you will test aqueous solutions of a number of oxides to see if they are acidic or basic.

* Predict weather or not Na2) forms an acidic or basic solution after completing reactions 2-6
* Fill the tip of a spatula with calcium oxide powder and place in a test tube. Drop 20 drops of water and insert litmus paper to determine weather an acid or base has formed.
* Set up a beaker with 20 ml of water add 1 or 2 pellets of dry ice (CO2) and test using litmus paper.
* Your professor will preform P4O10 reaction.
* Generate SO2 from sulfur by heating in air, wet the litmus paper and allow the gas to form an acid or base on the wet surface.
* Predict weather or not perchloric acid in solution with water would be acidic or basic.

Part B:

* Place about 1 ml of chlorine bleach in a test tube. Add 1 ml of toluene.
* In the hood acidify the system with 500 ul of 6M HCL and triturate with a spatula.
* Place about 1 ml of deionized water in a test tube add one quarter of the upper toluene layer from the above experiment and agitate the test tube.
* Place 1 ml of.1M KF solution in a test tube add another quarter of the toluene layer.
* Repeat this experiment with KBR and KI
* Place 1 ml of deionized water in a test tube add 1 ml of saturated bromine water , add .5 ml of toluene and agitate the test tube.
* Preform the same reaction with KCl Solution.
* Preform the same reaction with KI solution.
* Place 1 ml of deionized water in a testube, add 1 ml of .2M Iodine solution and .5 ml of toluene and agitate the test tube.
* Preform the same reactions with KCL first and then KBr