Reactions of Ethyl Alcohol — Lab 36

PURPOSE

To investigate the reactions of ethanol with potassium permanganate in acidic, basic and neutral media.

EQUIPMENT

test tubes — litmus paper

MATERIALS

0.01M $KMnO_4$ — 10% NaOH solution
10% H_2SO_4 solution — ethanol

PROCEDURE

1. Put 3ml of ethanol in each of three test tubes.
2. Put a piece of litmus paper in each of the test tubes.
3. Add 2 drops of NaOH to the second test tube. (basic media)
4. Add 2 drops of H_2SO_4 to the third test tube. (acidic media)
5. Add 1ml of $KMnO_4$ solution to each of the solutions.
6. Note your observations and fill the following table.

C_2H_5OH	Effect of $KMnO_4$		
	Neutral	Basic	Acidic
10 seconds later			
5 minutes later			

QUESTIONS

1. Write the oxidation reactions of ethanol in acidic and basic media.
2. Which tube doesn't give reaction with $K_2Cr_2O_7$?
3. Can you use 2-buthanol instead of ethanol in this experiment?