

Laboratory Report

Experiment 5: Hydroxy Compounds (Alcohols and Phenols)

Name:.....

Tube no.	Test	Observation	Conclusion
1	Preparation of Alkyl Halide from Alcohol. a) Tertiary alcohol, 1 mL of t-butanol + 1 mL of Lucas reagent		
2	b) Secondary alcohol, 1 mL of Isopropanol + 1 mL of Lucas reagent + heating for 1-2 minutes		
3	c) Primary alcohol, 1 mL of Ethanol + 1 mL of Lucas reagent		
4	Oxidation of alcohol with oxidizing agent a) Primary alcohol, 1 mL of Ethanol + 1 drop of KMnO_4 + heating for 1 minute		
5	b) Secondary alcohol, 1 mL of isopropanol + 1 drop of KMnO_4 + heating for 1 minute		
6	c) Tertiary alcohol, 1 mL of t-butanol + 1 drop of KMnO_4 + heating for 1 minute		

Question1: Write the chemical equation of the following reactions:

- 1) Phenol with bromine water.
- 2) Phenol with ferric chloride.
- 3) The preparation of toluene from benzene.

Question2: How can we study phenol acidity and what is its pH range?