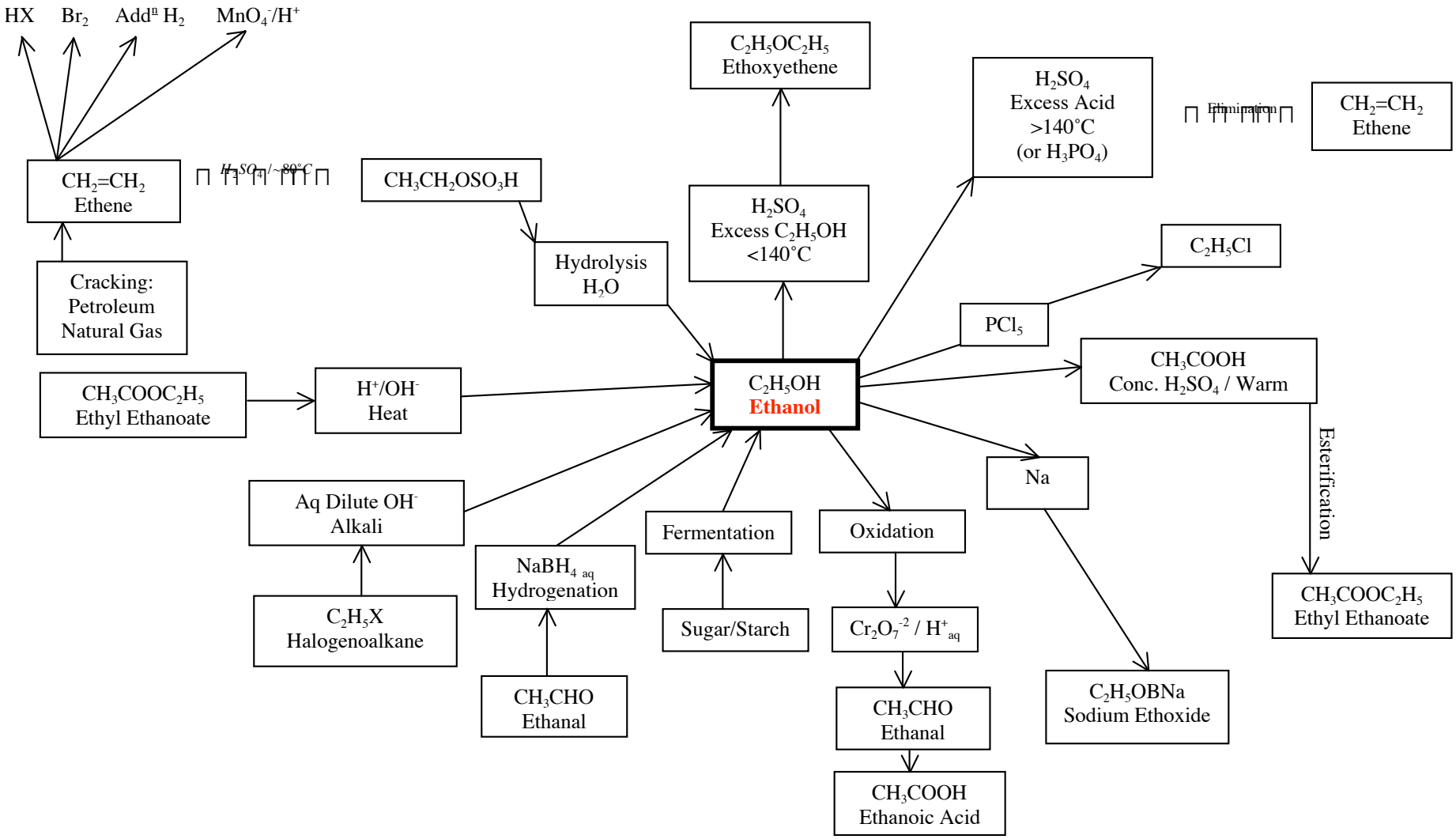
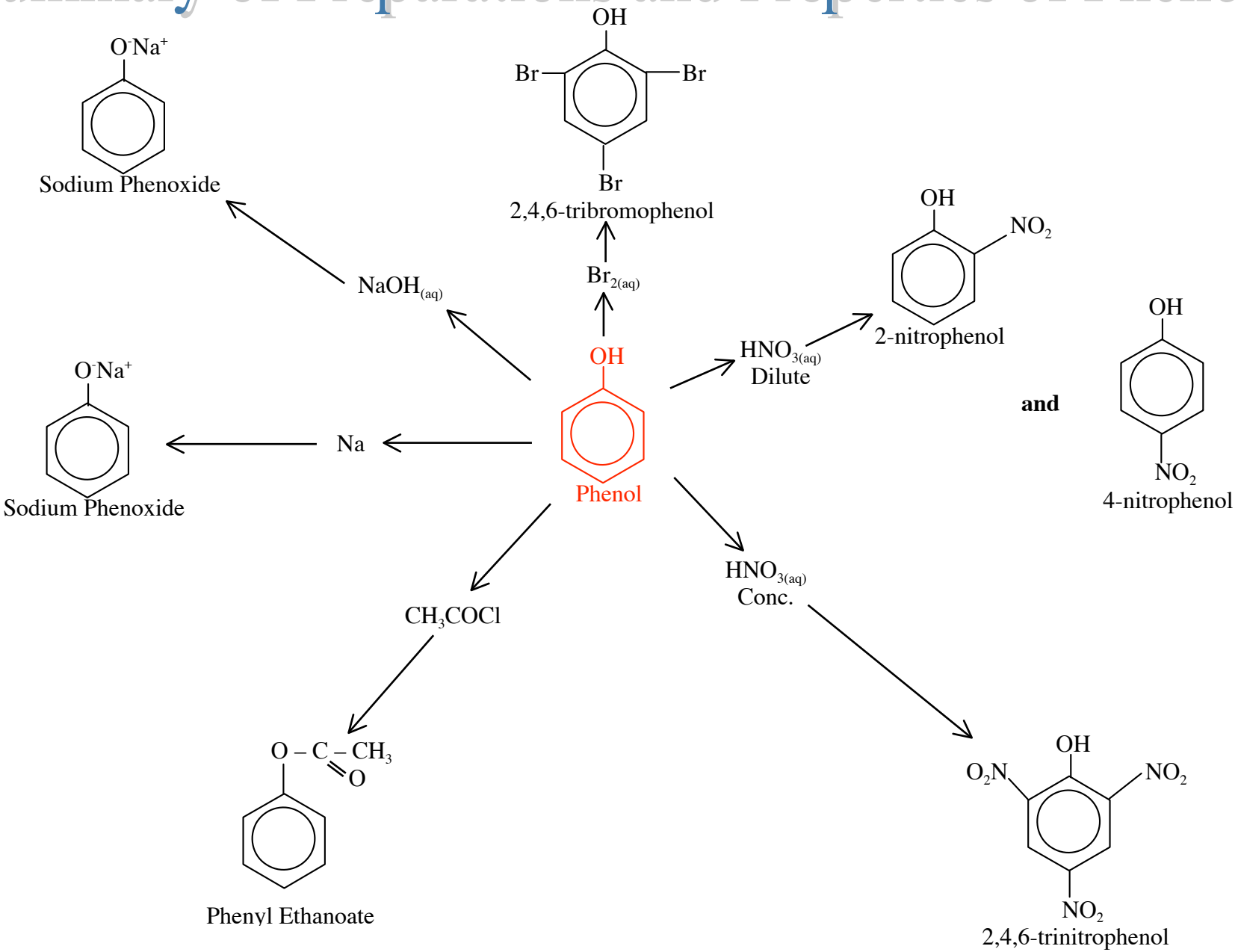
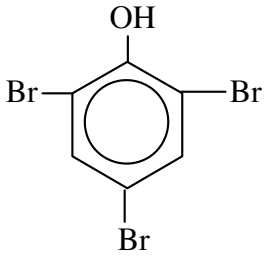
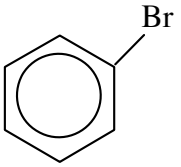
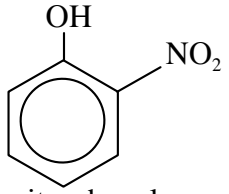
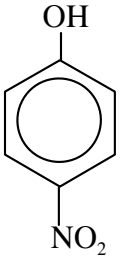
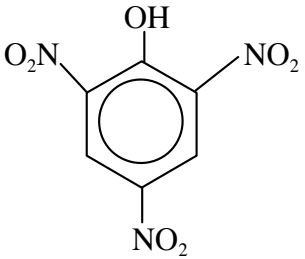
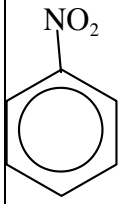
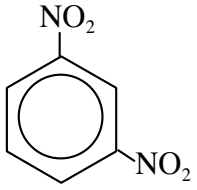
Summary of Preparations and Properties of Ethanol



Summary of Preparations and Properties of Phenol



Comparison Between Phenol and Benzene

Reactant	Reaction Conditions		Substitution Products	
	Phenol	Benzene	Phenol	Benzene
Br_2	• Aqueous • Cold • Room Temperature	• Liquid Br_2 • $FeBr_3$ Catalyst	 2,4,6-tribromophenol	
Dilute HNO_3	• Room Temperature	• No reaction	 2-nitrophenol  4-nitrophenol	
Conc. HNO_3	• Room Temperature	• Concentrated H_2SO_4 • Heat	 2,4,6-trinitrophenol	<60°C  Nitro benzene  1,3-dinitro benzene