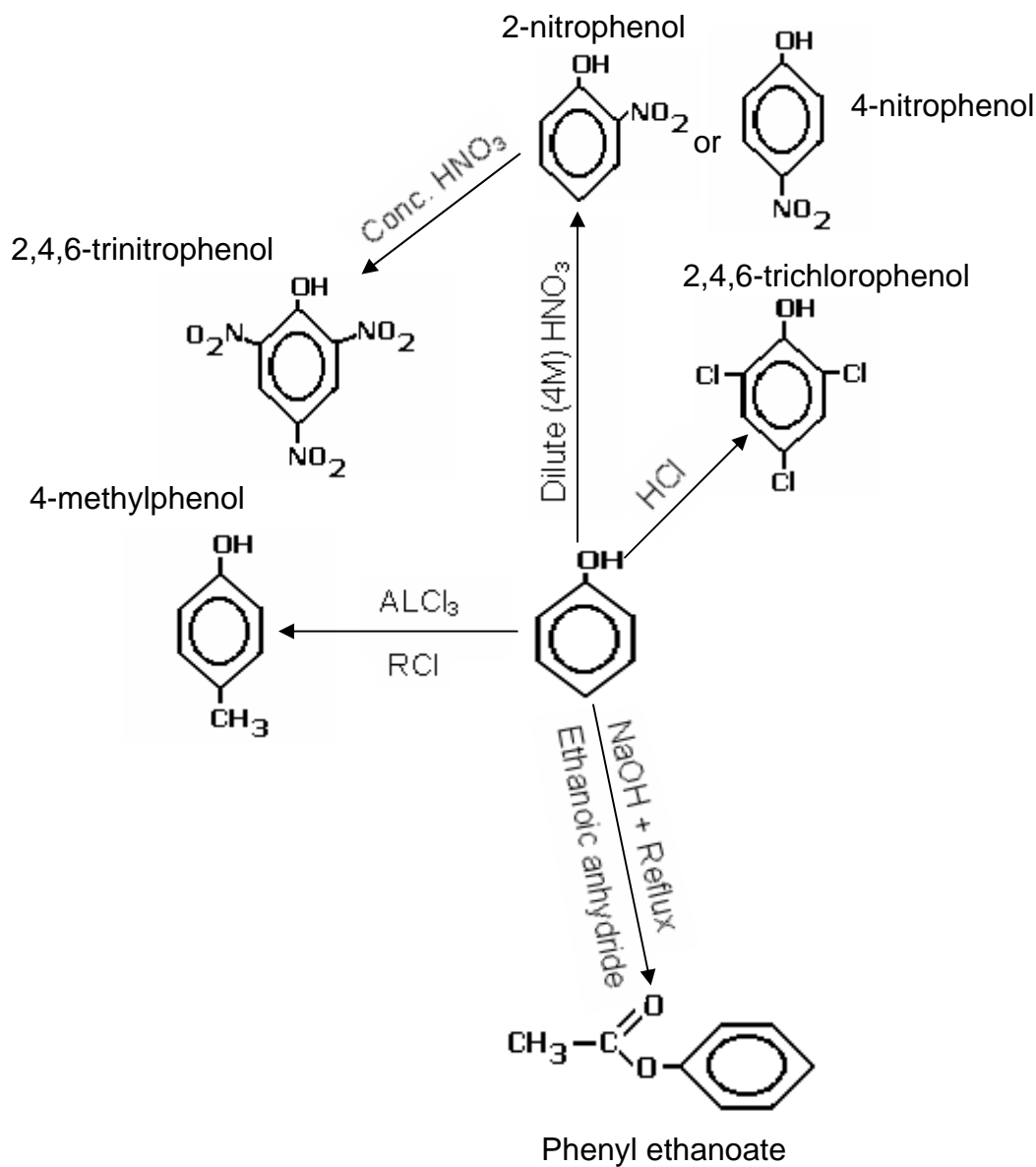


PHENOL



Uses of Benzene derivatives

Nitrobenzene and nitrophenol: Explosives
Dyestuffs

Sulphonic Acids: Drugs
Detergents
Dyestuffs

Halogenophenol and benzene: Antiseptics

See Benzene Flowchart for relevant reactions.

Exceptions:

No Sulphuric Acid required for Nitration (3)

No Iron catalyst required for Halogenation (4)

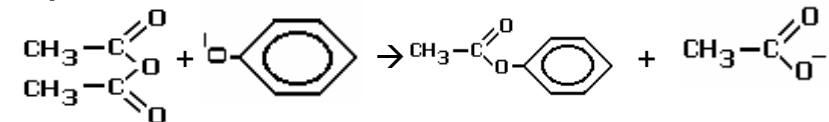
Electrophilic Addition is much harder with Phenol due to increased stability provided by electron ring.

Esterification:

Type: Substitution **Mechanism:** Nucleophilic

Nucleophile: Phenoxide ion **C₆H₅O⁻**

Equations: $C_6H_5OH + Na^+ + OH^- \rightarrow Na^+ + C_6H_5O^- + H_2O$



Ethanoic Anhydride	Phenoxide Ion	Phenyl Ethanoate	Ethanoate Ion
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