

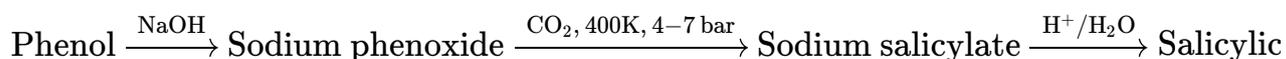
Phenol Reactions



Here are some important named reactions involving phenols, extracted from the provided documents:

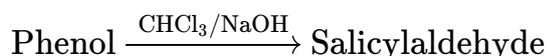
1. Kolbe-Schmitt Reaction:

- **Description:** Phenol is first converted to sodium phenoxide, which is more reactive than phenol towards electrophilic substitution. Treatment with CO₂ at 400K and 4-7 bar pressure followed by acid hydrolysis gives salicylic acid.
- **Reaction:**



2. Reimer-Tiemann Reaction:

- **Description:** When phenol is treated with chloroform and aqueous NaOH, a -CHO group is introduced at the ortho position.
- **Reaction:**



3. Phthalein Reaction:

- **Description:** Phenol reacts with phthalic anhydride in the presence of concentrated sulfuric acid to form phenolphthalein.
- **Reaction:**



4. Coupling Reaction:

- **Description:** Phenol couples with benzene diazonium chloride in an alkaline solution to form p-hydroxy azobenzene, a red-orange dye.
- **Reaction:**

