

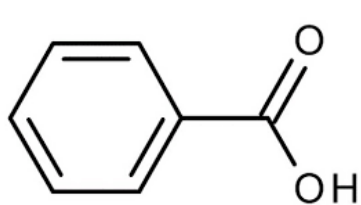
## PHARMACEUTICAL ORGANIC CHEMISTRY-II- BP301T

UNIT: 2    Aromatic acids

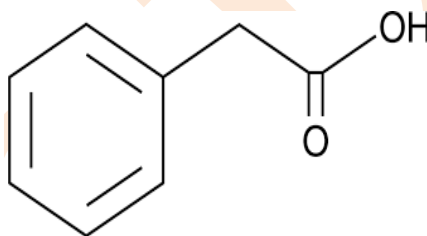
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### TOPIC Aromatic acids:

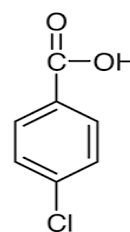
Aromatic amino acids stabilize folded structures of many proteins. Aromatic residues are found predominantly sequestered within the cores of globular proteins, although often comprise key portions of protein-protein or protein-ligand interaction interfaces on the protein surface.



Benzoic acid



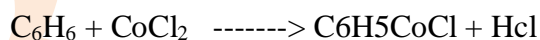
Phenyl acetic acid



P-Chloro benzoic acid

### Method of preparation of aromatic acids:

#### 1) From friedel crafts reaction:



Benzene

Benzoyl chloride



Benzoyl chloride

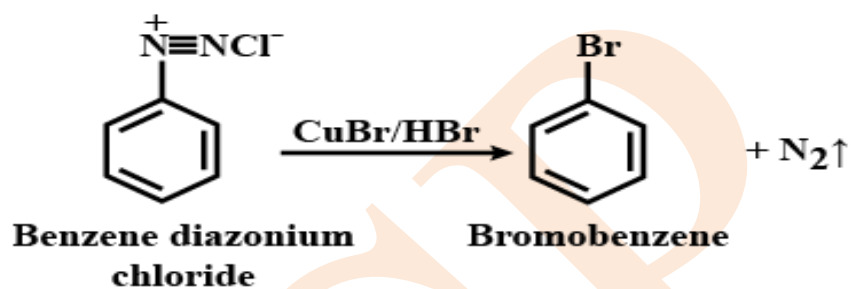
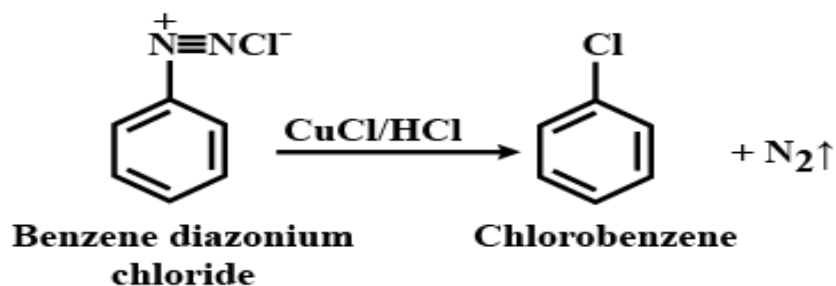
Benzoic acid

Benzene is reacting with carbonyl chloride to form benzoyl chloride

benzoyl chloride reacting with water to form benzoic acid.

#### 2) Sandmeyer reaction:

The Sandmeyer reaction is a chemical reaction used to synthesize aryl halides from aryl diazonium salts using copper salts as reagents or catalysts. It is an example of a radical-nucleophilic aromatic substitution.



### 3) From Phthalic acid reaction:

The reaction of phthalic anhydride or the acid with alcohol produces Phthalic Acid esters, which are used in diffusion pumps and to replace mercury in manometers. Diethyl and dihexyl esters are commonly used in this application. Insect repellents such as dimethyl phthalate are effective.

