

PHARMACEUTICAL ORGANIC CHEMISTRY-II- BP301T

UNIT: 1 Benzene and its derivatives

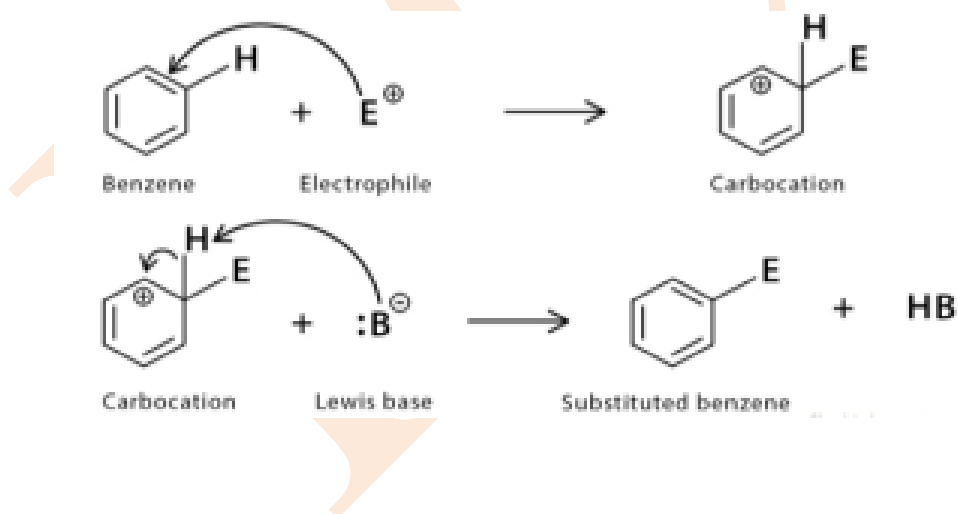
CLASS: 4

TOPIC: Chemical reactions of benzene

Chemical reactions:

- 1) Electrophilic substitution reaction
- 2) Addition reaction
- 3) Oxidation reaction

Electrophilic substitution reaction:

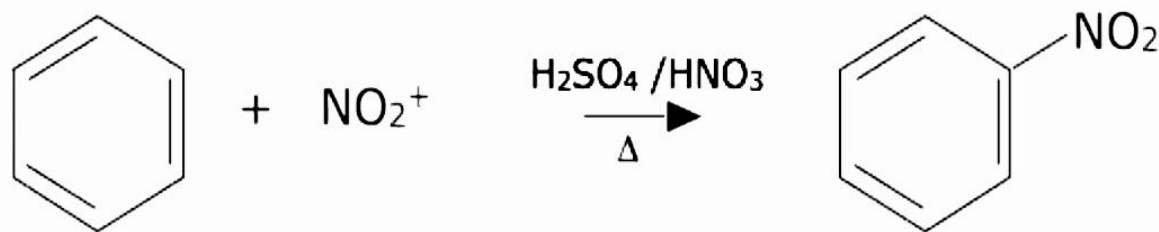


Chemical reactions of benzene

Nitration:

Nitrobenzene is formed when benzene interacts with concentrated nitric acid at 323-333K in the presence of intense sulphuric acid. This is referred to as benzene nitration.

Nitration of benzene

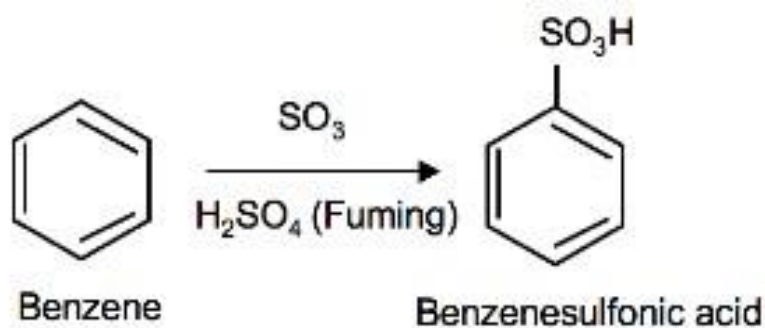


Benzene

Nitro benzene

Sulphonation of benzene:

When benzene and sulphuric acid undergo an electrophilic substitution reaction. Benzene is heated to 40°C under the influence of intense fuming sulphuric acid for a long period. This process produces benzene sulfonic acid.



Benzene

Benzenesulfonic acid

Halogenations of benzene:

Benzene is reacting with bromine molecule to form bromo benzene.

