

Chapter 23: Amine Reactions II Worksheet

BASICITY

Number the following in decreasing order of basicity (#1 = most basic)

benzylamine

ammonia

aniline

*p*-toluidine

1

2

4

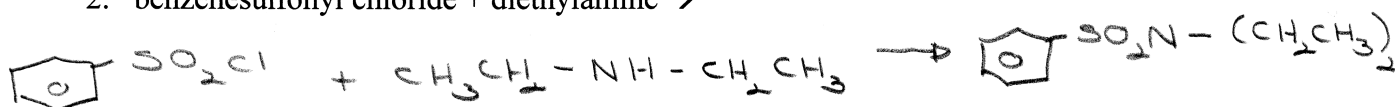
3

REACTIONS

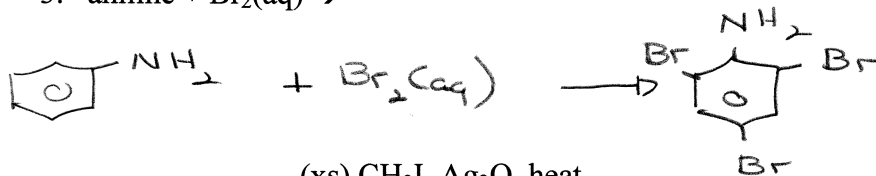
1. aniline + ethyl bromide  $\rightarrow$



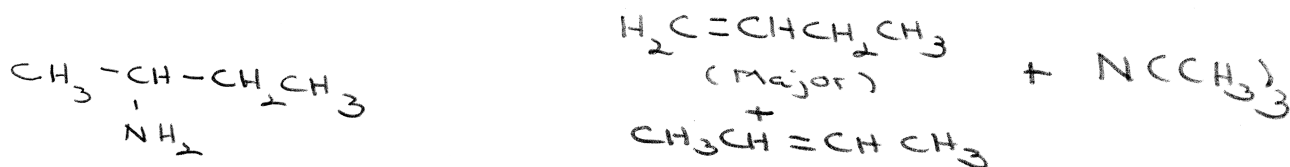
2. benzenesulfonyl chloride + diethylamine  $\xrightarrow{OH^-}$



3. aniline + Br<sub>2</sub>(aq)  $\rightarrow$



4. sec-butylamine  $\xrightarrow{(xs) CH_3I, Ag_2O, heat}$



5. *n*-butylamine + ClCH<sub>2</sub>COONa (sodium chloracetate)  $\rightarrow$



6. *N,N*-dimethylaniline + NaNO<sub>2</sub>  $\xrightarrow{H^+}$  (HONO)

