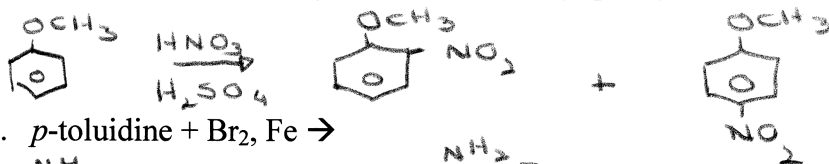


**Chapter 15: Supplemental EAS Worksheet**

Reactions:

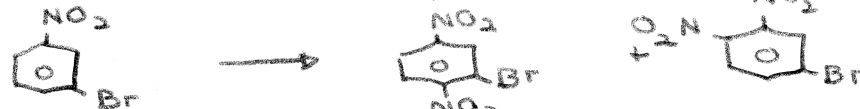
1. anisole (a.k.a. methoxybenzene and methyl phenyl ether) + HNO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub> →



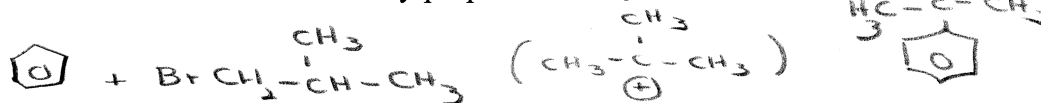
2. *p*-toluidine + Br<sub>2</sub>, Fe →



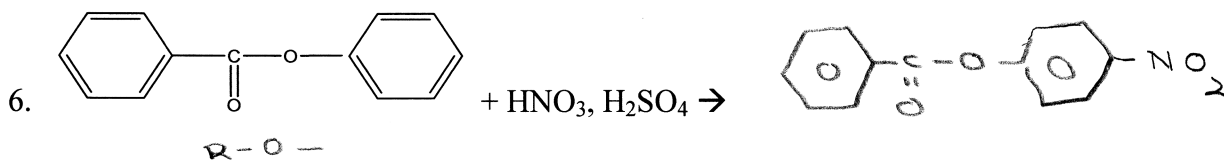
3. *m*-bromonitrobenzene + HNO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub> →



4. benzene + 1-bromo-2-methylpropane + AlCl<sub>3</sub>

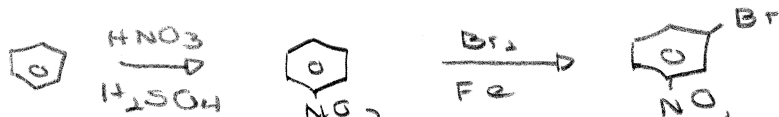


5. acetophenone + H<sub>2</sub>SO<sub>4</sub>, SO<sub>3</sub> →

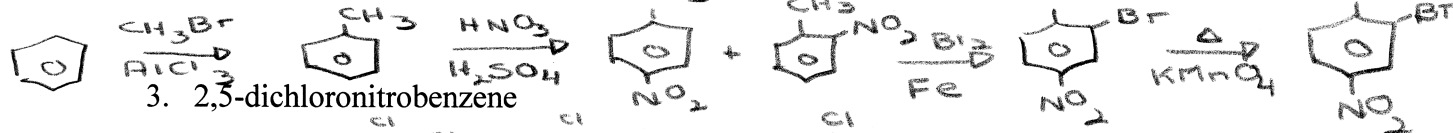


Syntheses. From Benzene:

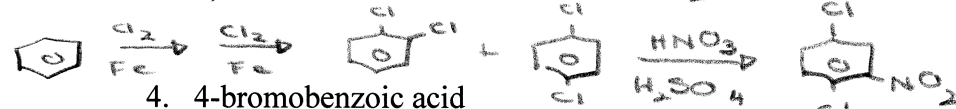
1. *m*-bromonitrobenzene



2. 2-bromo-4-nitrobenzoic acid



3. 2,5-dichloronitrobenzene



4. 4-bromobenzoic acid



Mechanism

Outline all steps in the mechanism for Sulfonation of benzene. Label the RDS.