

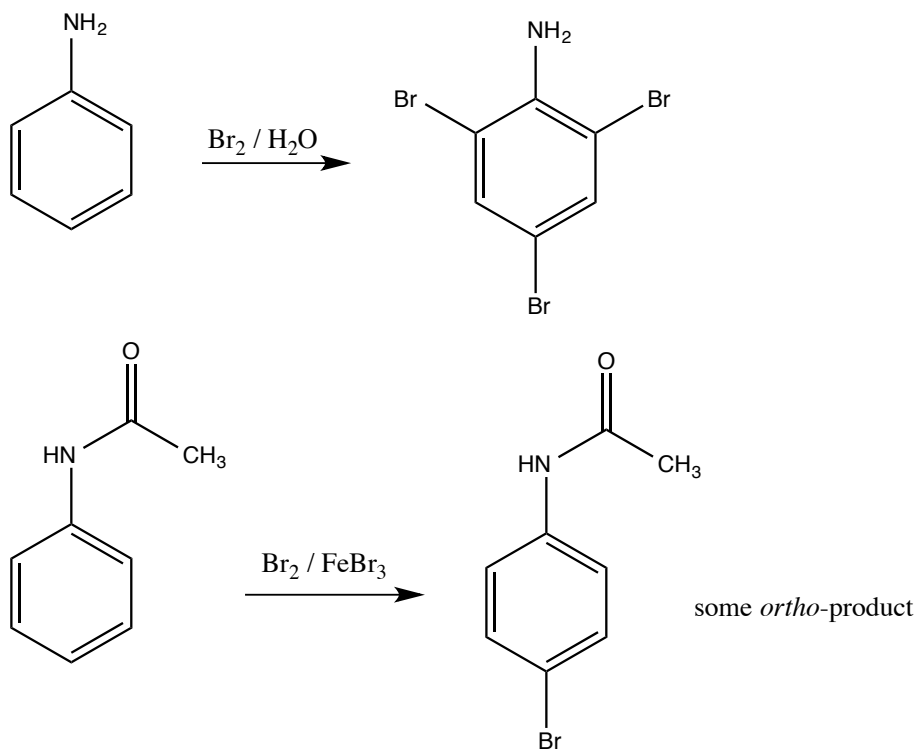
## Chem 345 – Organic Reactions Chapter 23

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<http://www.chem.wisc.edu/areas/clc> (Resource page)

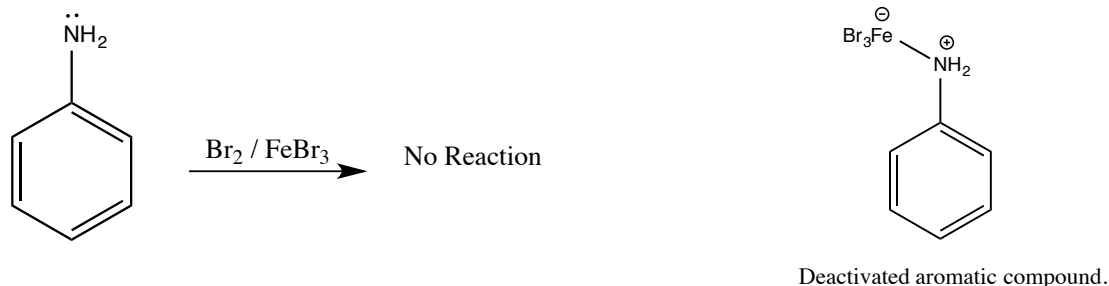
### Electrophilic Aromatic Substitution (EAS) of Arylamines

Reactions:

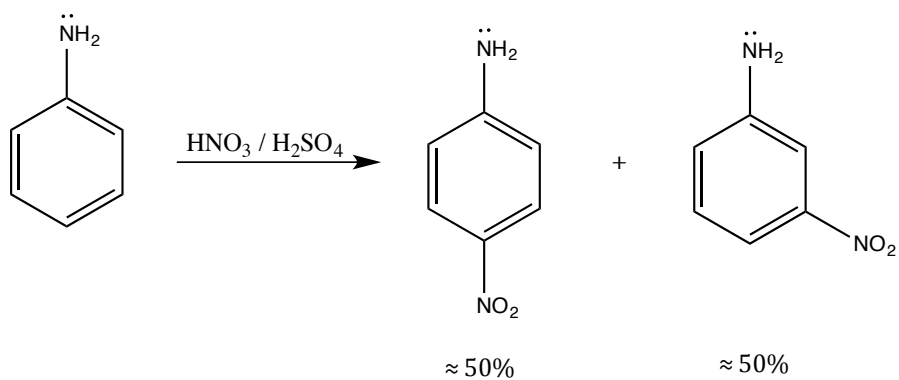


Aniline (Aryl- $\text{NH}_2$ ) is one of the most reactive compounds toward EAS. Like in the case shown above mono-bromination cannot be achieved under normal Friedel-Crafts reaction (more on this later). Making the aniline less reactive by placing an acyl-group will appropriately form the mono-brominated compound.

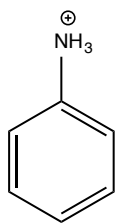
On the note of Friedel-Crafts reaction of anilines, they do not undergo EAS Friedel-Crafts alkylation or acylation. An adduct is formed between aniline and the Lewis acid rendering the aromatic compound electron-deficient.



Also nitration of aniline gives a mixture of products owing to the basicity of aniline.



This is due to the formation of anilinium ion (strongly deactivating) in the strongly acidic media.



Deactivated aromatic compound.