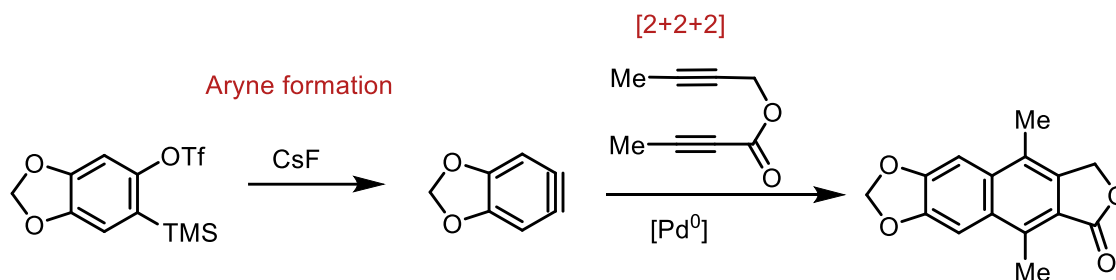
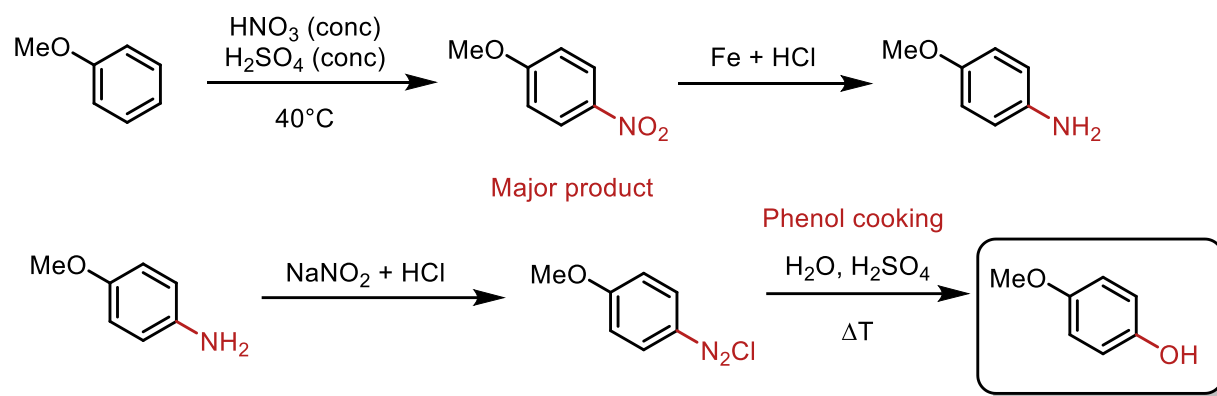


FRO-II 2025 EXERCISE SESSION 2 – SOLUTIONS

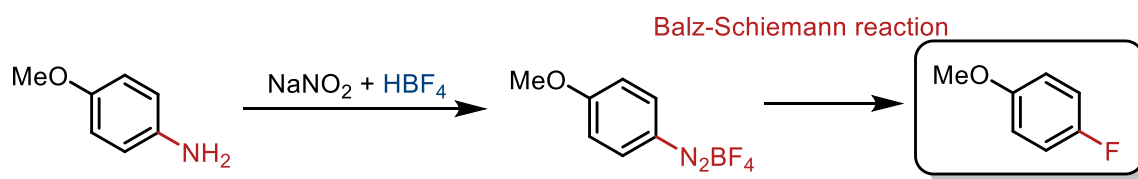
1.



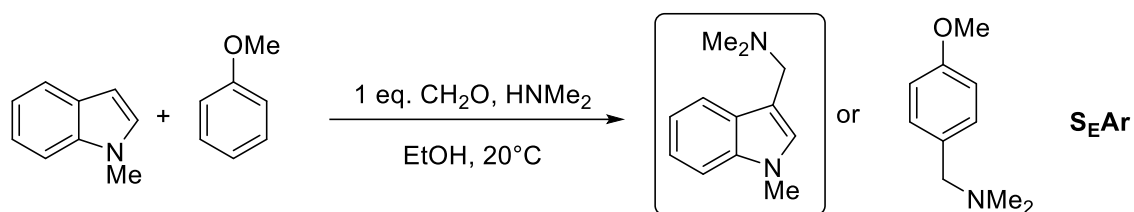
2.



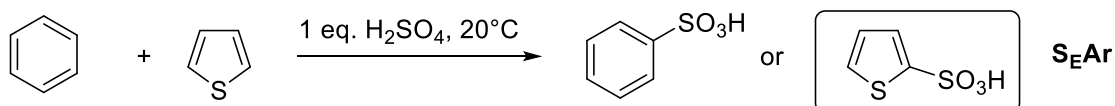
If we use $\text{NaNO}_2 + \text{HBF}_4$:



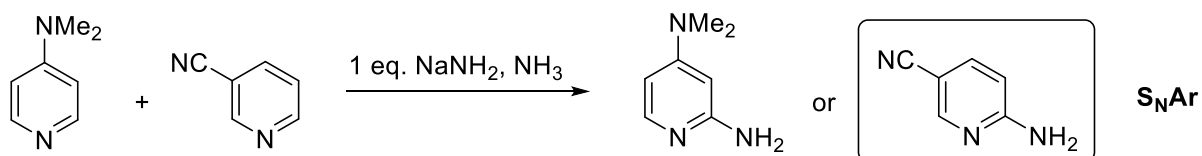
3.



indole is more **electron-rich**,
reacts more readily in **S_EAr**

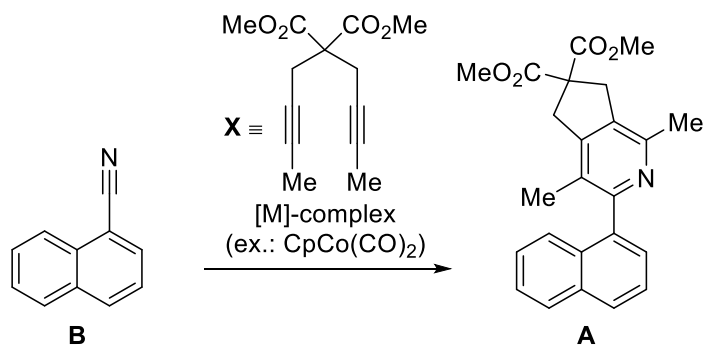
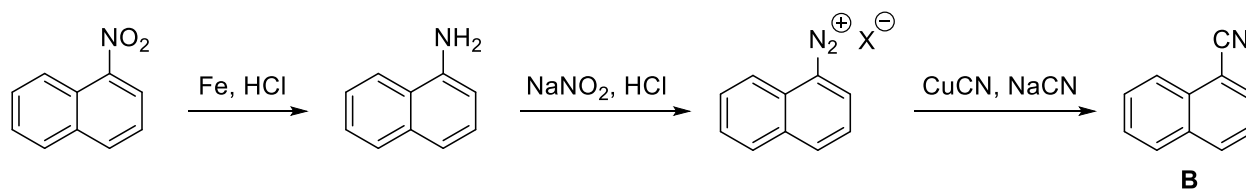


thiophene is more **electron-rich**,
reacts more readily in **S_EAr**



3-cyanopyridine is more **electron-poor**,
reacts more readily in **S_NAr**

4.



5.

