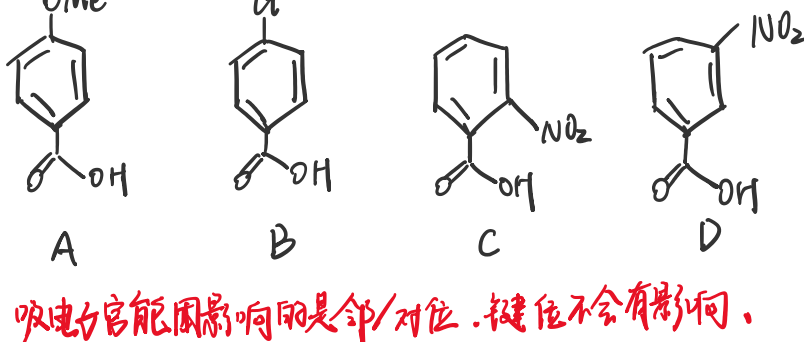


phenol

2026年5月7日 星期四

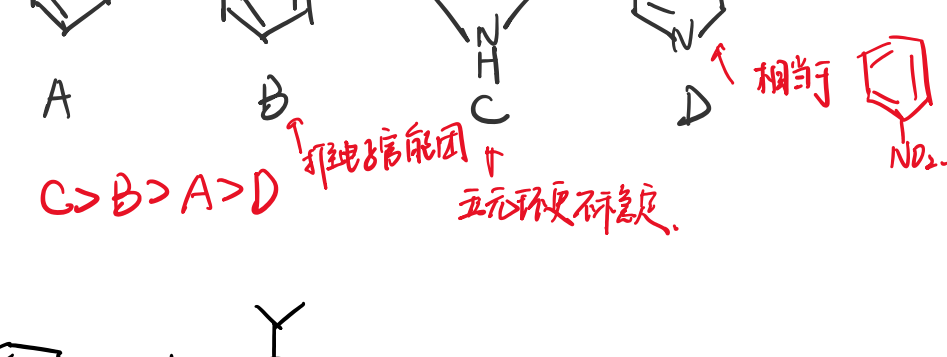
14:28

1. 酸性

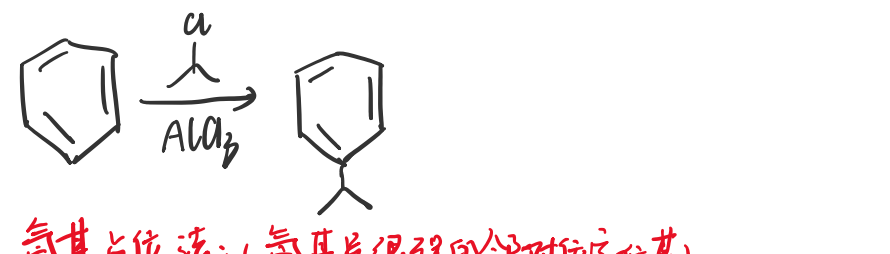


吸电子基团影响的是邻/对位，键位不会受影响。
O中会形成分子内氢键，更加稳定电子云。

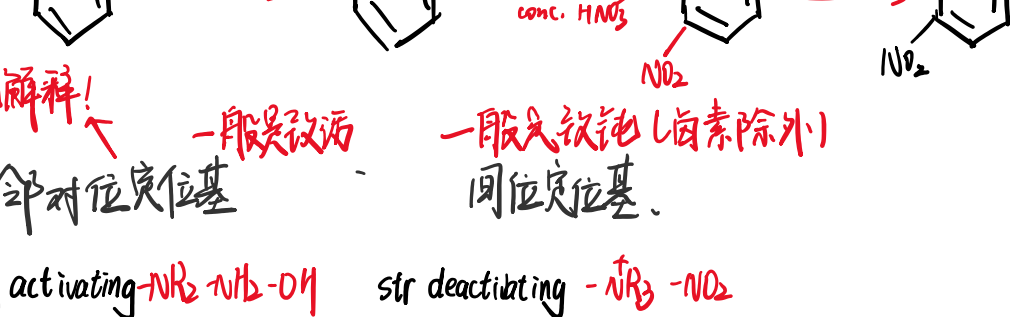
2. 反应活性 (与 $\text{Cl}_2/\text{FeCl}_3$)



3.



氨基占位法：(氨基是强给电子邻对位定位基)



苯胺水解制

邻对位定位基

一般及致钝 (卤素除外)

同位定位基

Strongly activating $-\text{NR}_2$ $-\text{NH}_2$ $-\text{OH}$

str deactivating $-\text{NR}_3^+$ $-\text{NO}_2$

Moderately activating $-\text{OR}$ $-\text{NHCOR}$

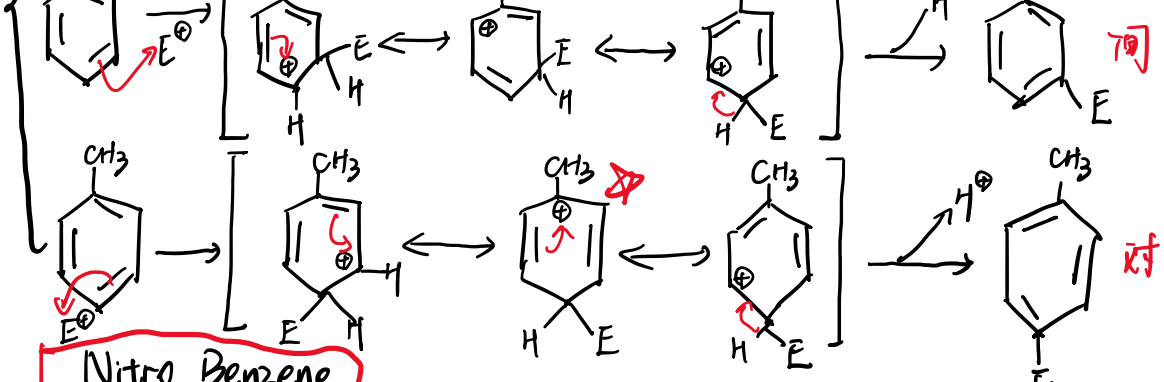
Mod deactivating $-\text{CN}$ $-\text{SO}_3\text{H}$

Weakly activating $-\text{CH}_3$ $-\text{CH}_2\text{R}$

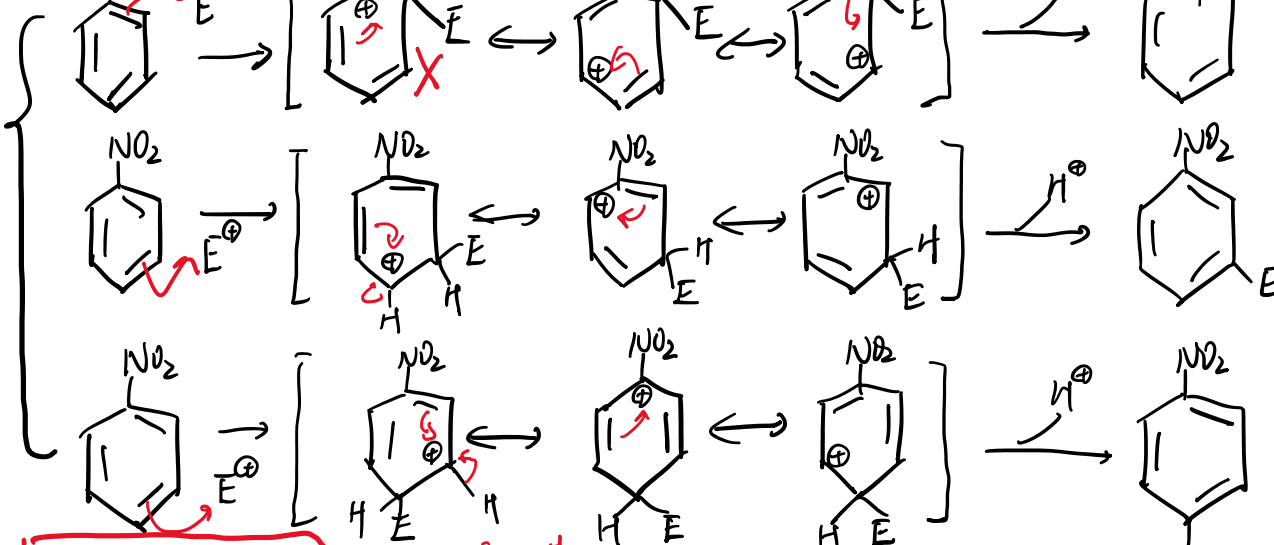
Weak deactivating $-\text{COCH}_3$ $-\text{COOH}$ $-\text{COOCH}_3$ $-\text{CHO}$

Weakly deactivating $-\text{X}$ (例外)

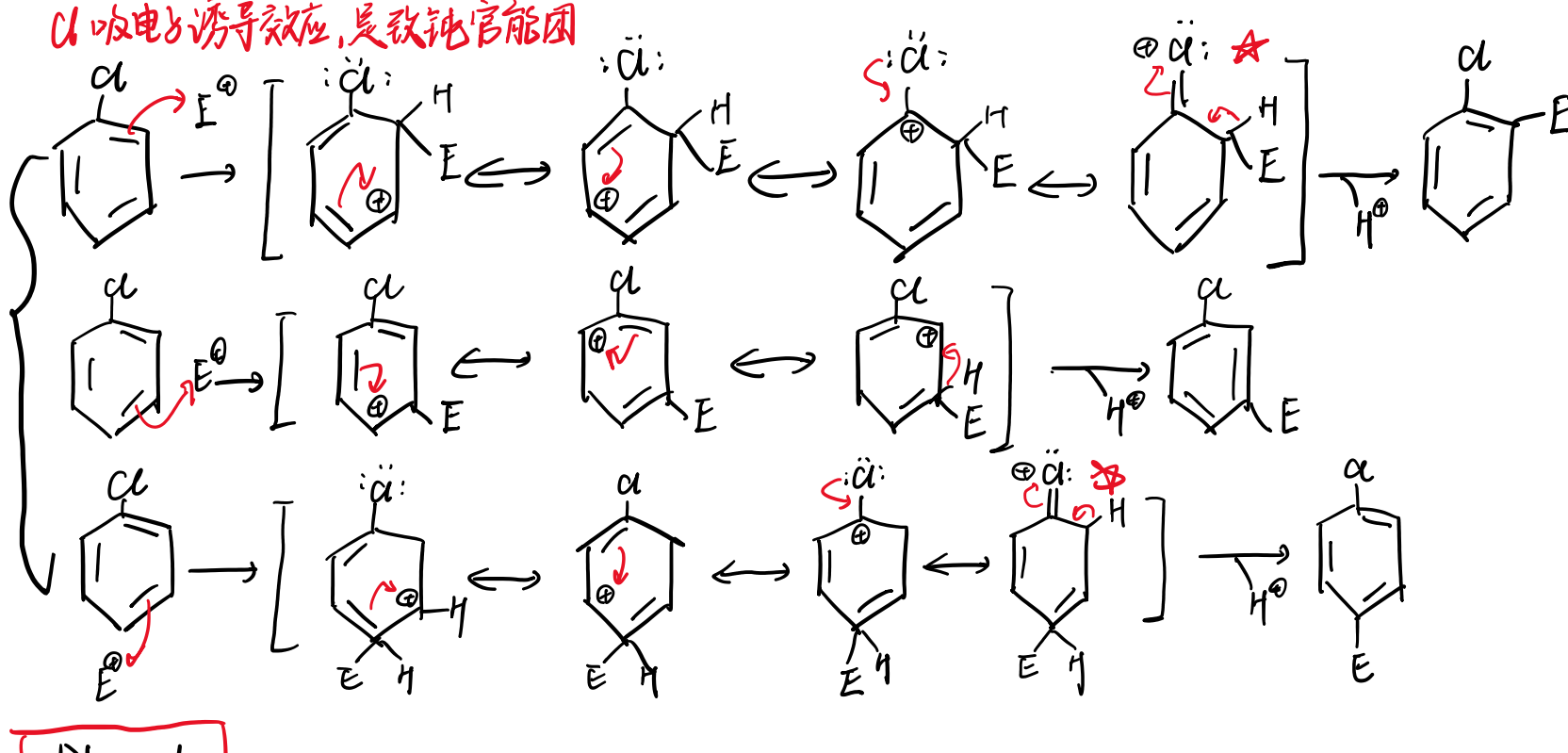
Methyl Benzene



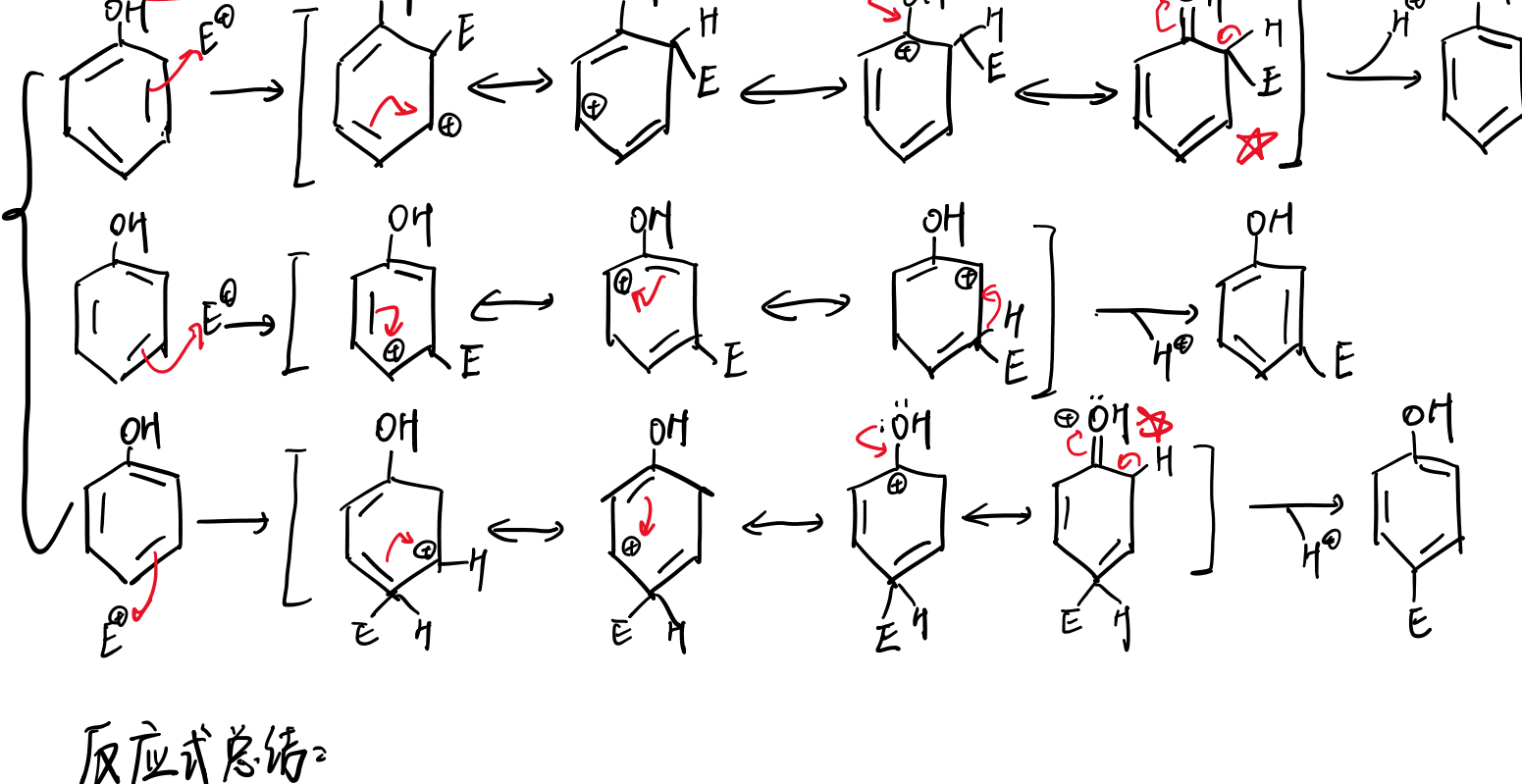
Nitro Benzene



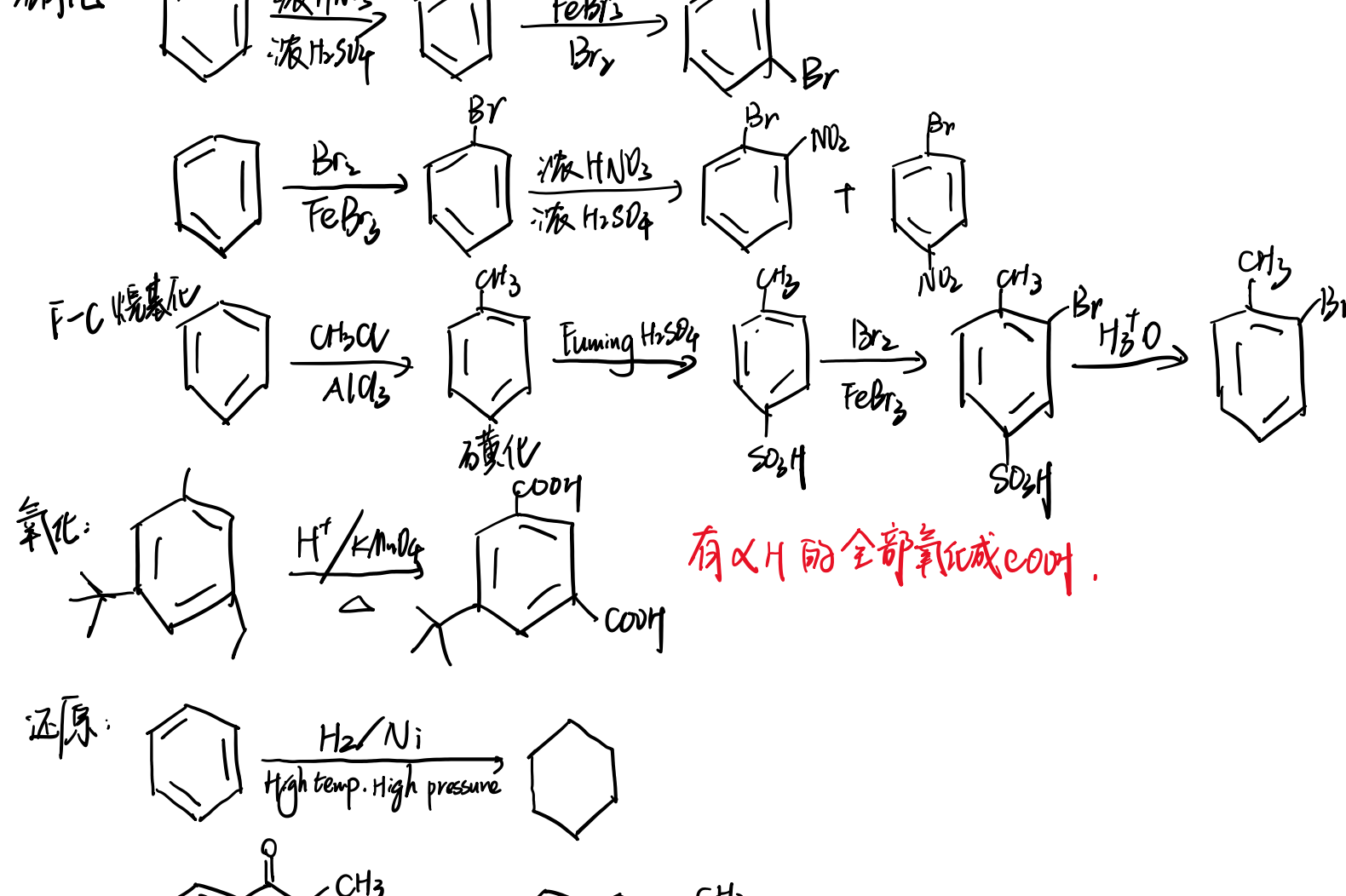
Chloro Benzene



Phenol

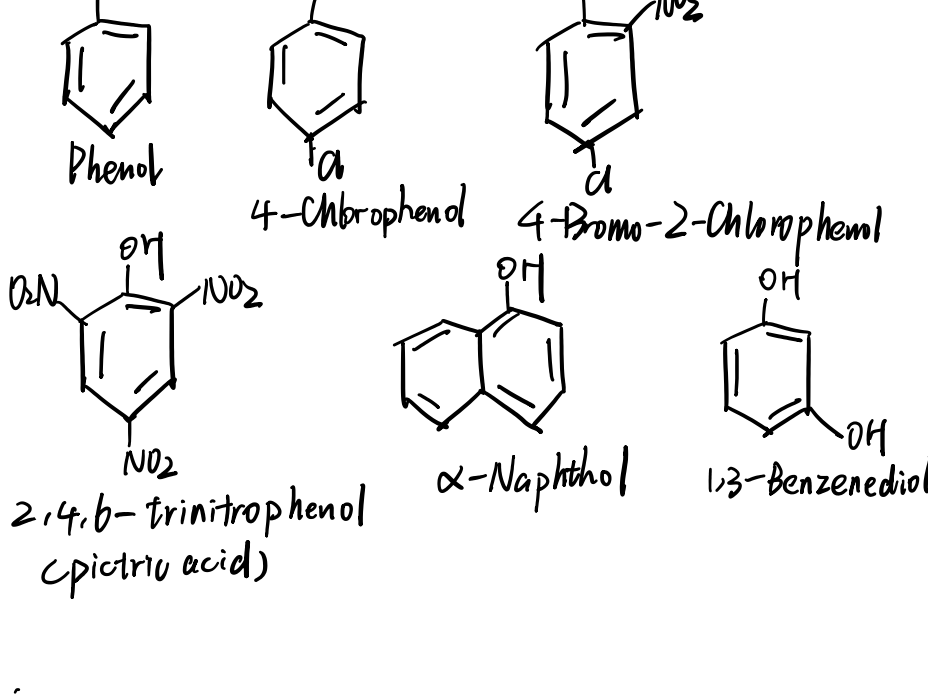


反应式总结:



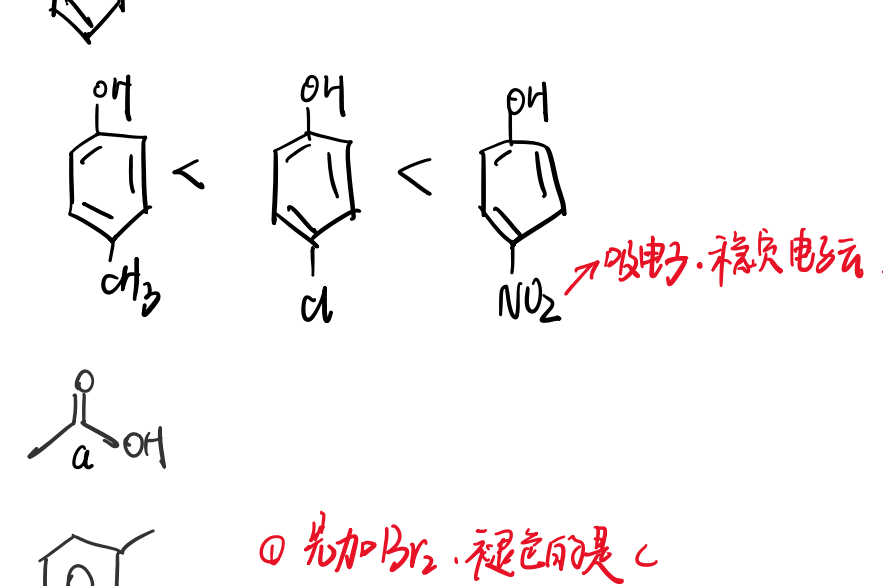
苯酚:

1. 命名:



2. 反应:

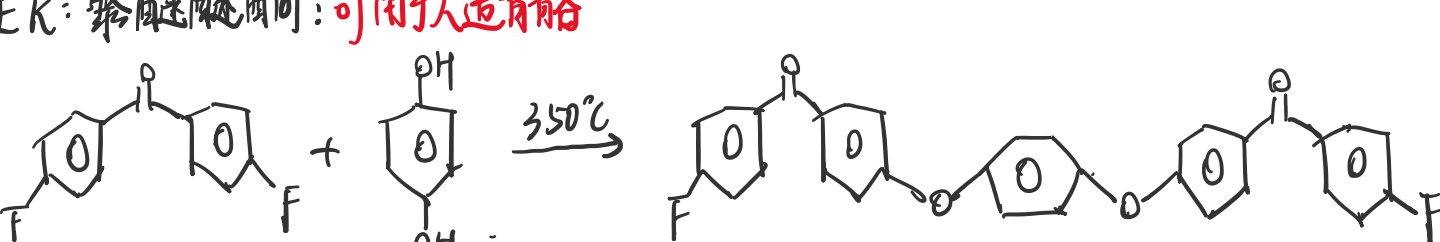
① 酸性:



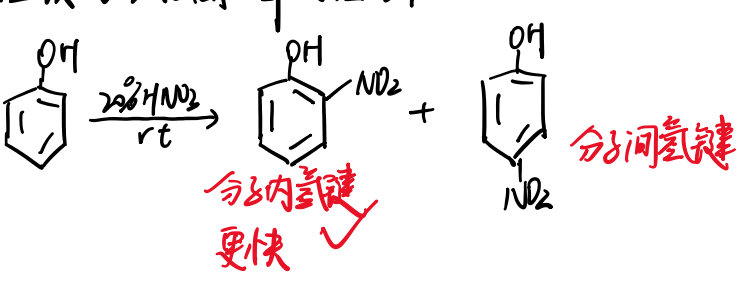
① 先加 Br_2 ，褪色的是 c

② 加 NaHCO_3 ，产生气泡的是 a (a 酸性比 b 强)

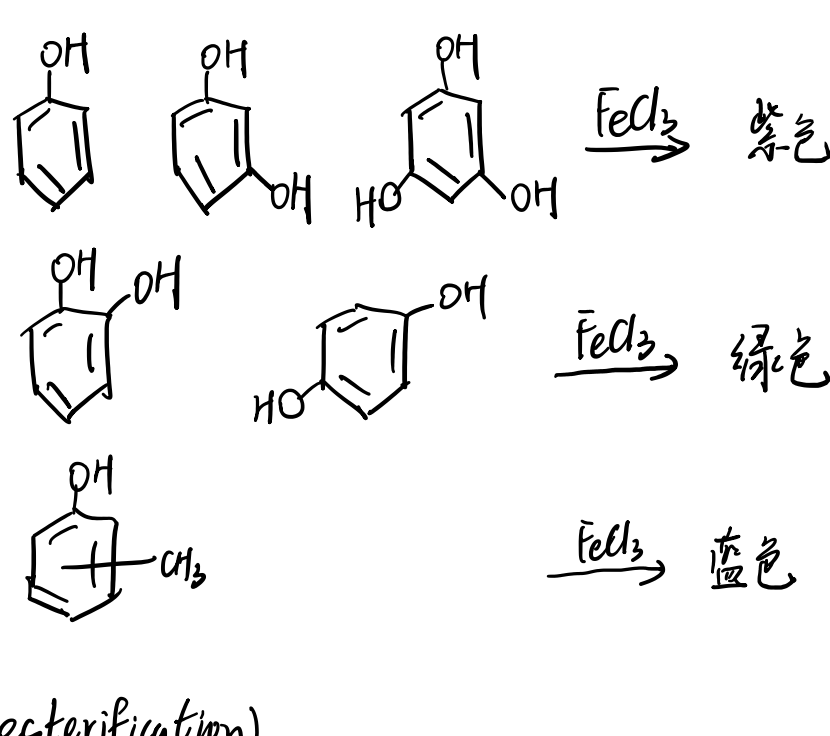
PEEK: 聚醚醚酮: 可用于人造骨骼



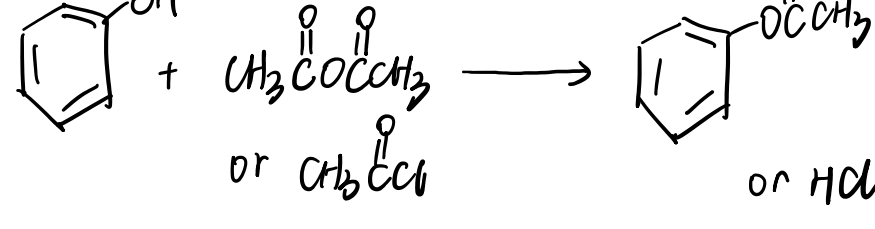
② 亲电取代: 强致活基团 邻对位活性.



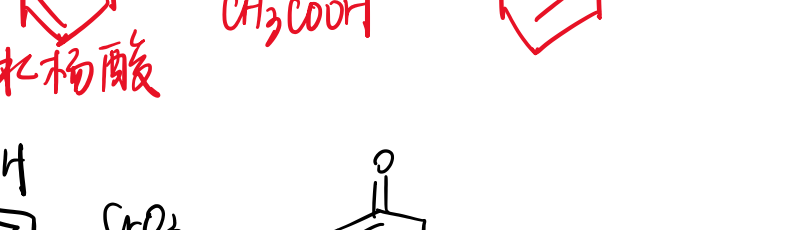
③ 颜色反应:



④ 酯化 (esterification)



Aspirin: 水杨酸



⑤ 氧化:

