

Reactions of alcohols and phenols

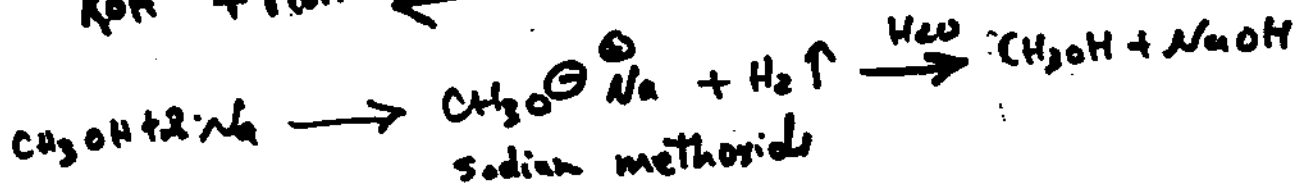
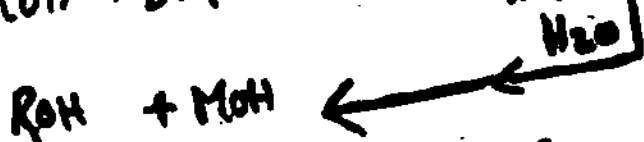
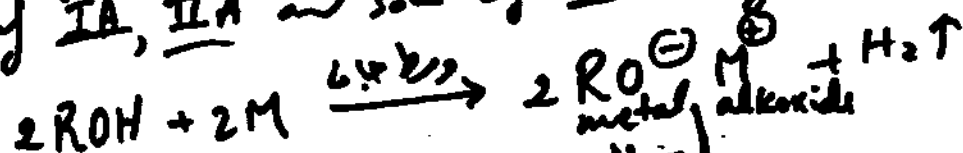
(72)

① Salts formation تكوين أملاح

- we can use their acidity to form salts

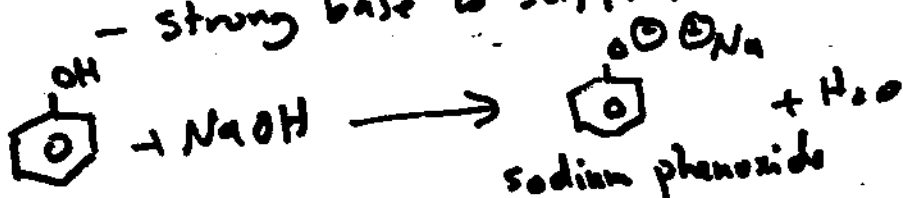
① alcohol

alcoholic hydrogen H-OH reacts with metals of IA, IIA and some of IIIA e.g. Al



② Phenols

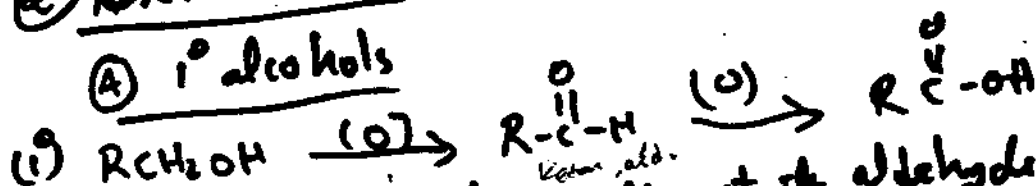
- strong base is sufficient (6B)



- Good method to distinguish between alcohols & phenols

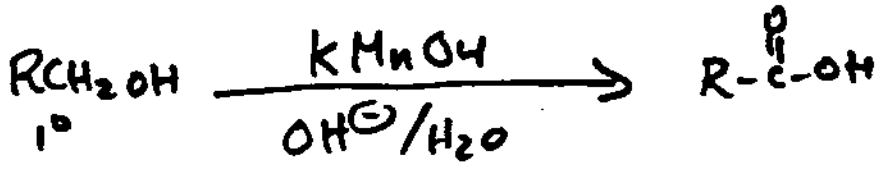
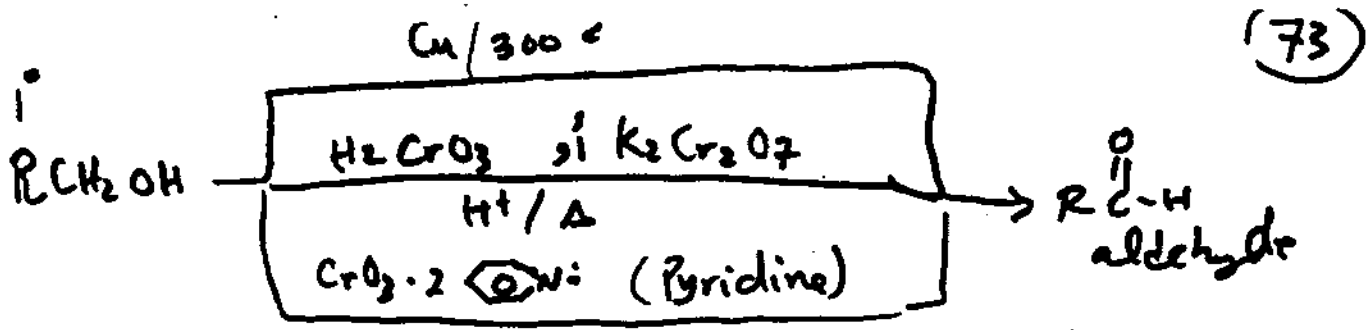
② Oxidation التأكسد

① 1° alcohols

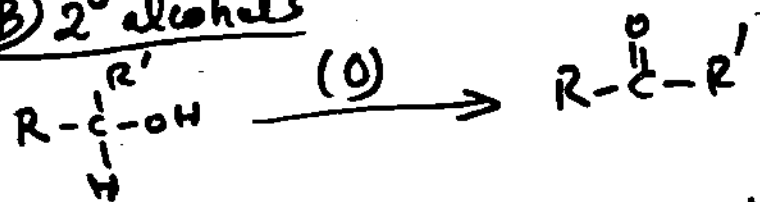


- hard to stop the reaction at the aldehyde except by distillation. (BP of aldehydes < BP alcohols)

- depends on oxidation reagent to have either aldehyde or carboxylic acid.

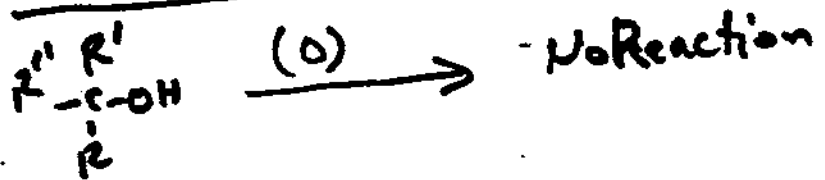


Ⓑ 2° alcohols



$\text{CrO}_3 \cdot \text{Pyridine}$, $\text{KMnO}_4 / \text{OH}^-$, H_2CrO_4 , $\text{K}_2\text{Cr}_2\text{O}_7 / \text{H}^+$

Ⓒ 3° alcohols



Ⓓ Phenols

easy to be oxidized (air is enough) to give quinones

