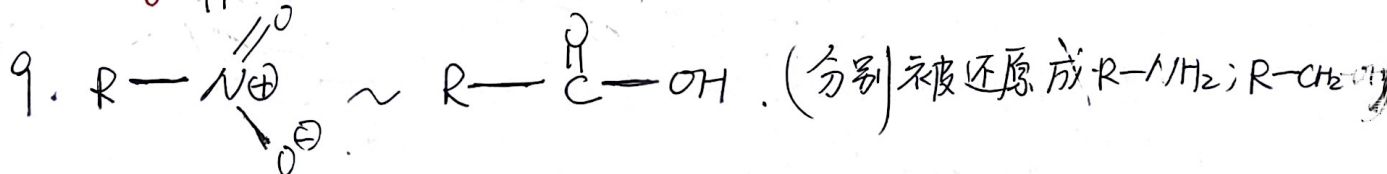
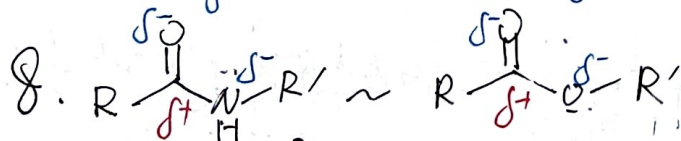
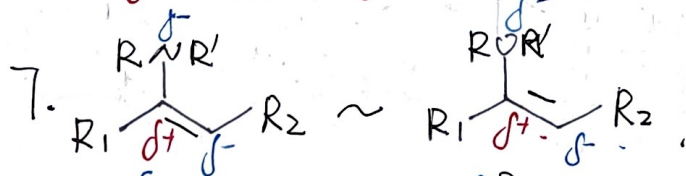
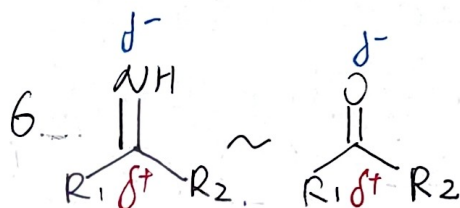
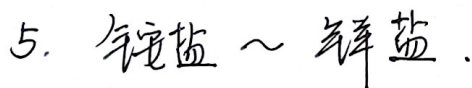
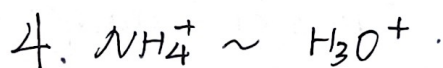
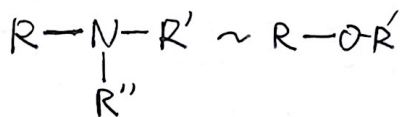
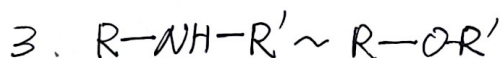
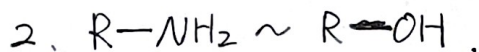
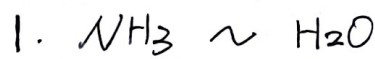


醚(醇)与胺

(一) 类比关系(结构上)(性质上)



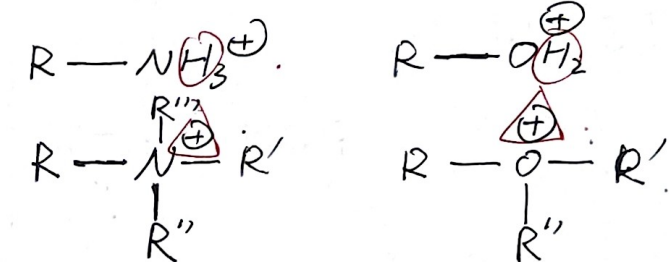
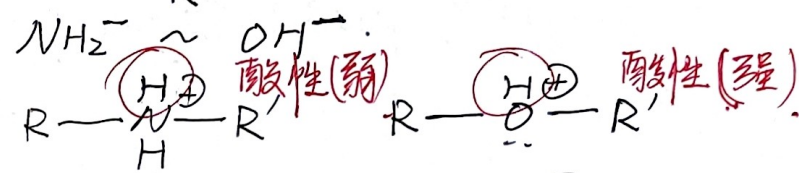
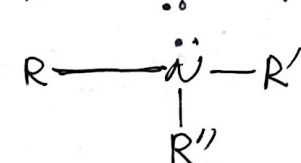
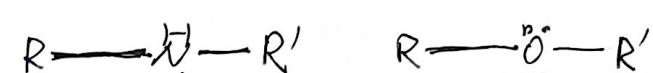
(强) 给 e^- 和 H^+ 成键 (弱)

碱性

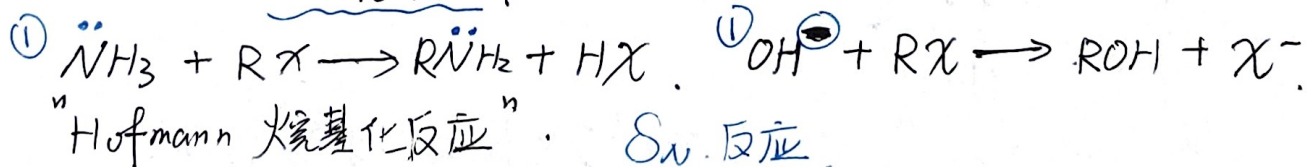
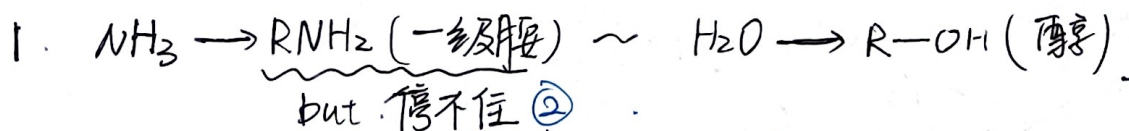
酸性

碱性

酸性

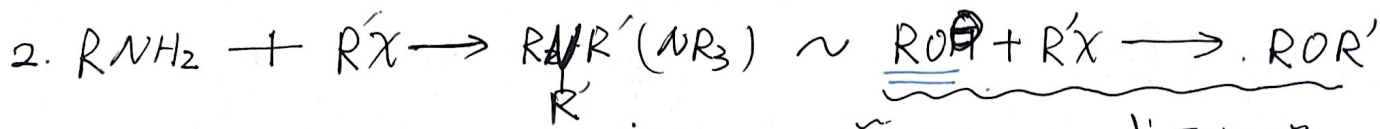


(二) 类比关系(反应上) * Hofmann 消除类似. 醇的消去反应.



说明 NH_3 亲核性强于 H_2O ①

RNH_2 强于 ROH ②



Hofmann 烷基化的延续(自发).

Williamson 成醚法.

S_N 反应.

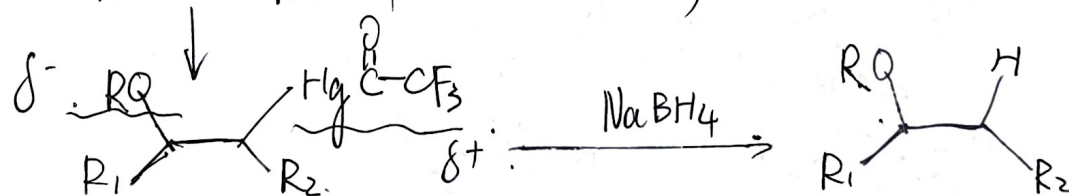
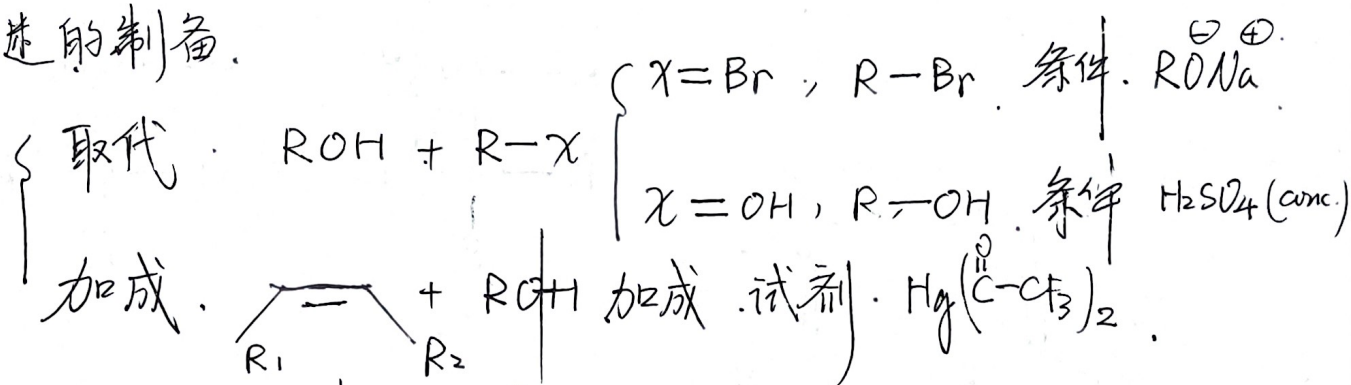
再次说明 RNH_2 亲核性强于 ROH .

(三) 类比关系 (应用上)

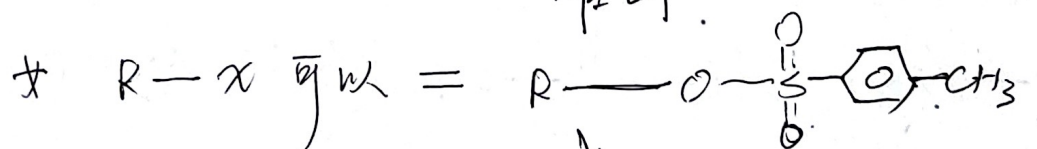
NR_4^+ (四级胺盐 / 季铵盐) 与 冠醚 e.g. 18-冠-6.

均可作为 相转移催化剂. Phase Transfer Catalyst (PTC).

* 醚的制备.

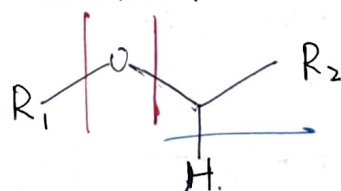


* $\text{R-X} \neq \text{C}_6\text{H}_5\text{Br} \Rightarrow$ 酚醚要以 $\text{C}_6\text{H}_5\text{O}^-$ 为原料.



* 烷基汞化 ~ 马氏加成.

* 醚的反应.



水解反应.

自动氧化反应 (自由基机理).

