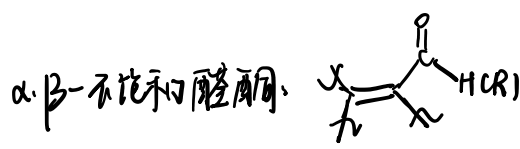
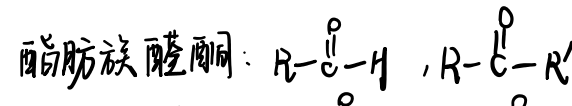
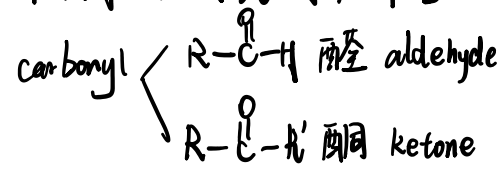


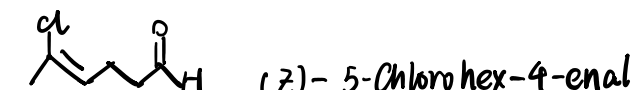
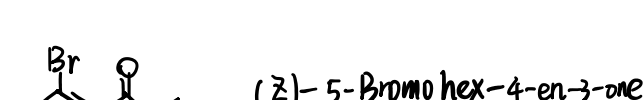
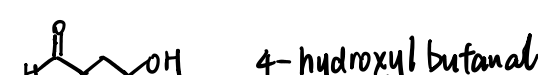
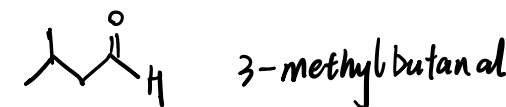
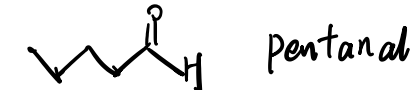
Aldehydes & Ketones

2026年5月11日 星期一 22:16

醛酮的分类、结构和命名:

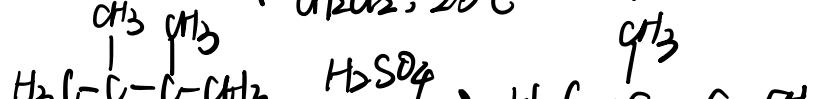
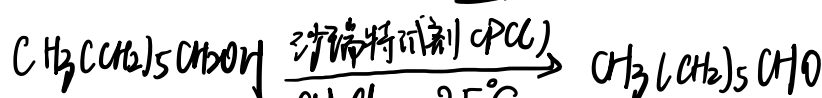
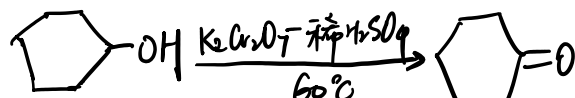
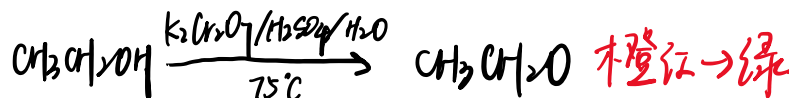


IUPAC 命名: **e → al / one**

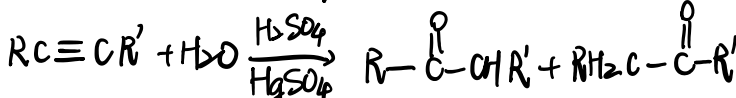
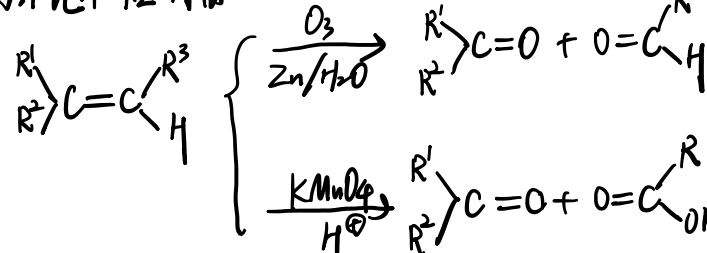


醛酮的制法:

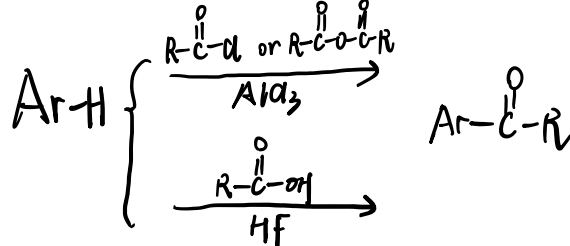
① 由醇制备



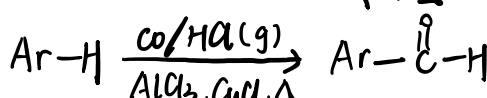
② 由不饱和烃制备



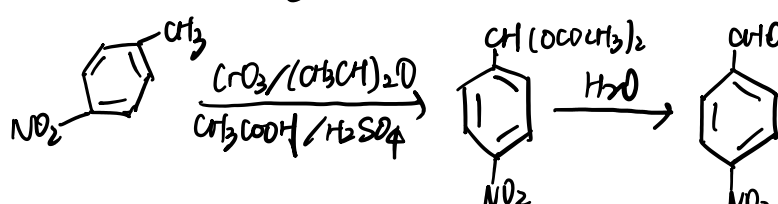
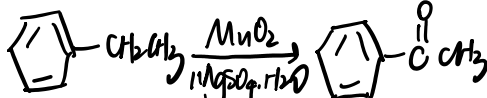
③ F-C 酰化反应合成酮



④ Gattermann-Koch 反应合成芳醛 人名反应



⑤ 芳烃侧链的氧化



醛酮物理性质:

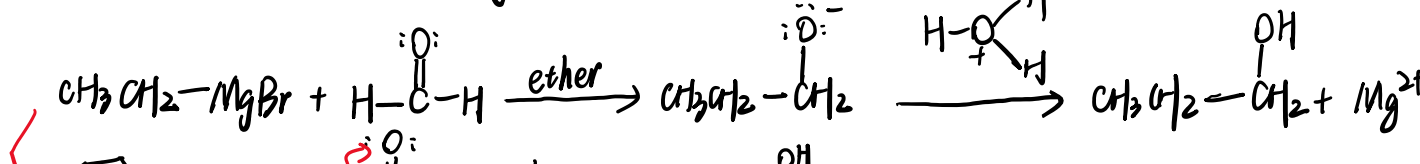
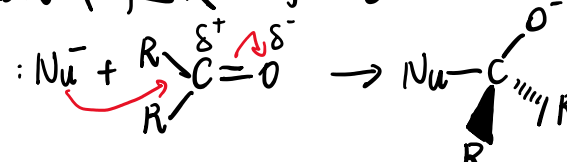
沸点: 沸点比醇低 (无氢键), 沸点比同质量烷烃高

低级醛酮与水混溶, 高级醛酮溶解度随分子量增加而下降

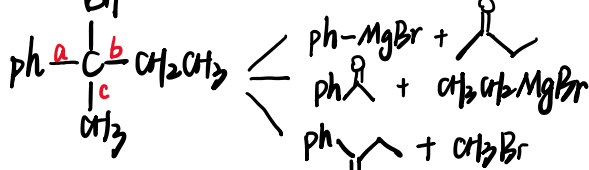
脂肪醛酮 $\rho < 1$, 芳香醛酮 $\rho > 1$

醛酮化学性质:

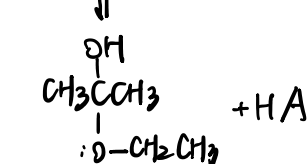
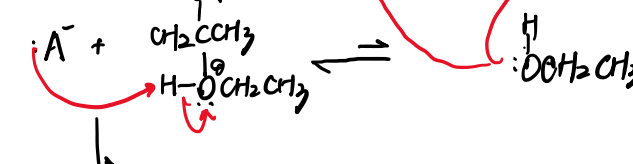
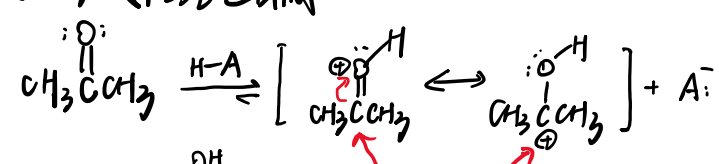
① 格氏试剂进攻醛得到醇



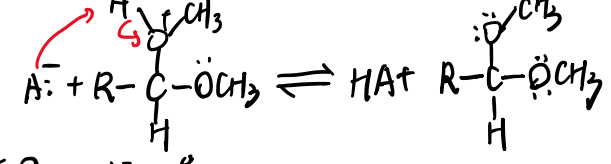
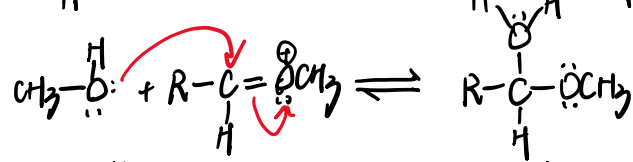
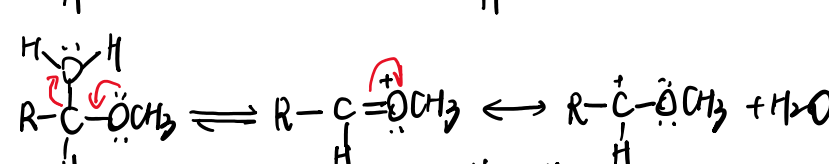
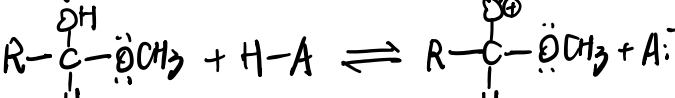
由此 C-C 键可以拆成一个格氏试剂和一个醛



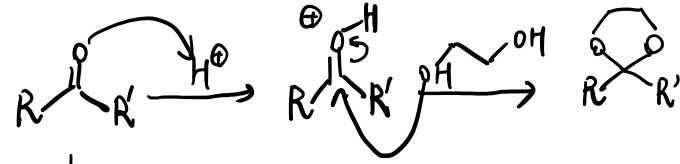
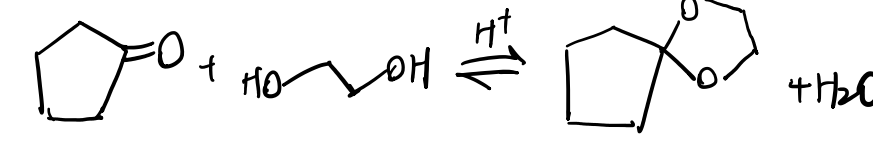
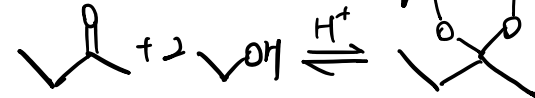
② 酸催化形成羟基乙酮



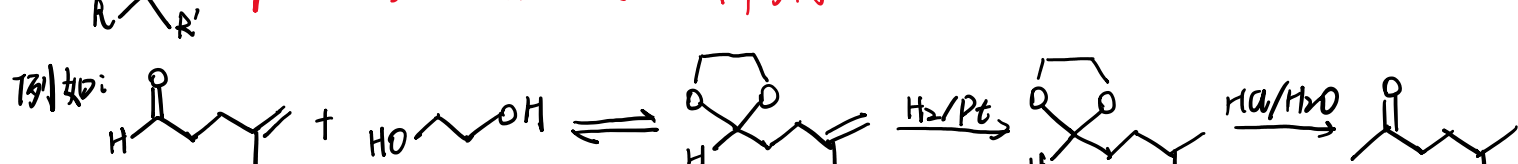
③ 酸催化形成乙缩醛



④ 醛/酮的缩醛/酮保护



保护过程: 可以让酮位点不受格氏试剂影响



⑤ 还原胺化:

