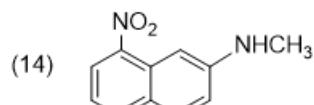
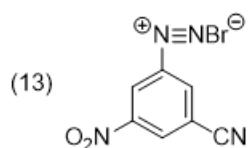
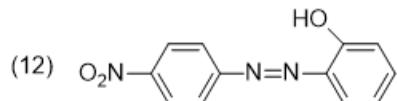


第七次作业答案

P129

1. 给出下列化合物名称或写出构造式：



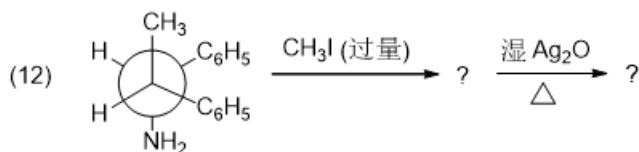
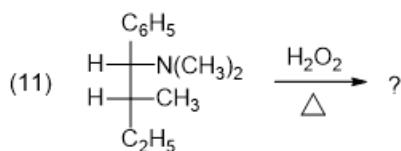
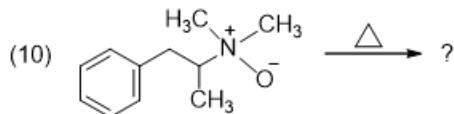
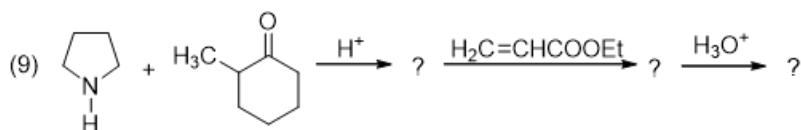
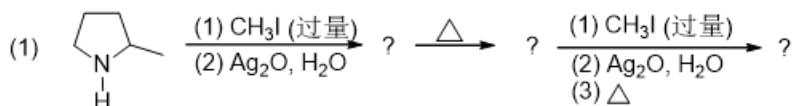
解答：

(12) 2-羟基-4'-硝基偶氮苯

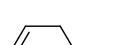
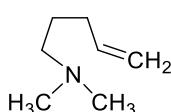
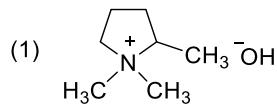
(13) 3-氰基-5-硝基溴化重氮苯

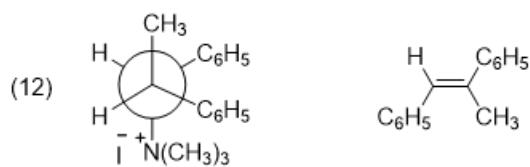
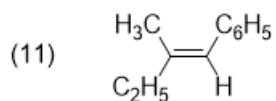
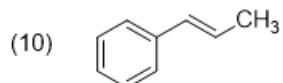
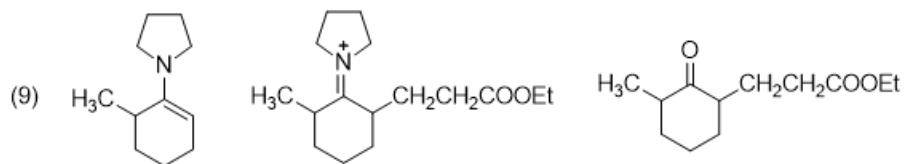
(14) *N*-甲基-8-硝基-2-萘胺

6. 完成下列反应：

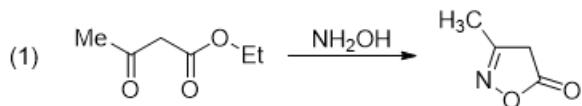


解答：

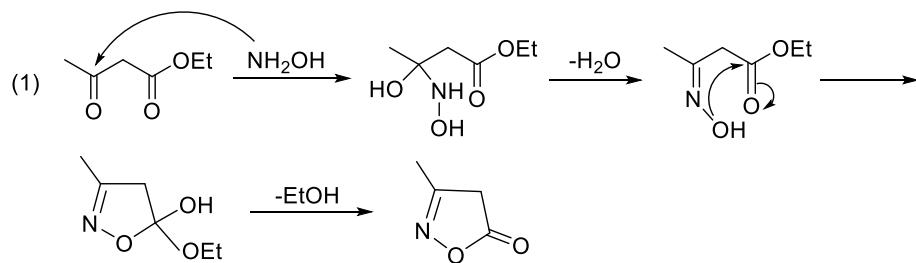




8. 写出下列反应的机理:

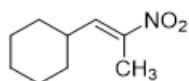


解答:

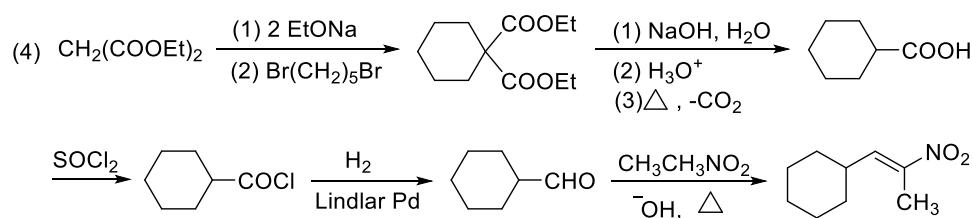


9. 从指定的原料合成:

(4) 从简单的开链化合物合成:



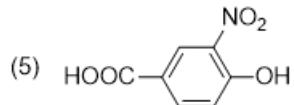
解答:



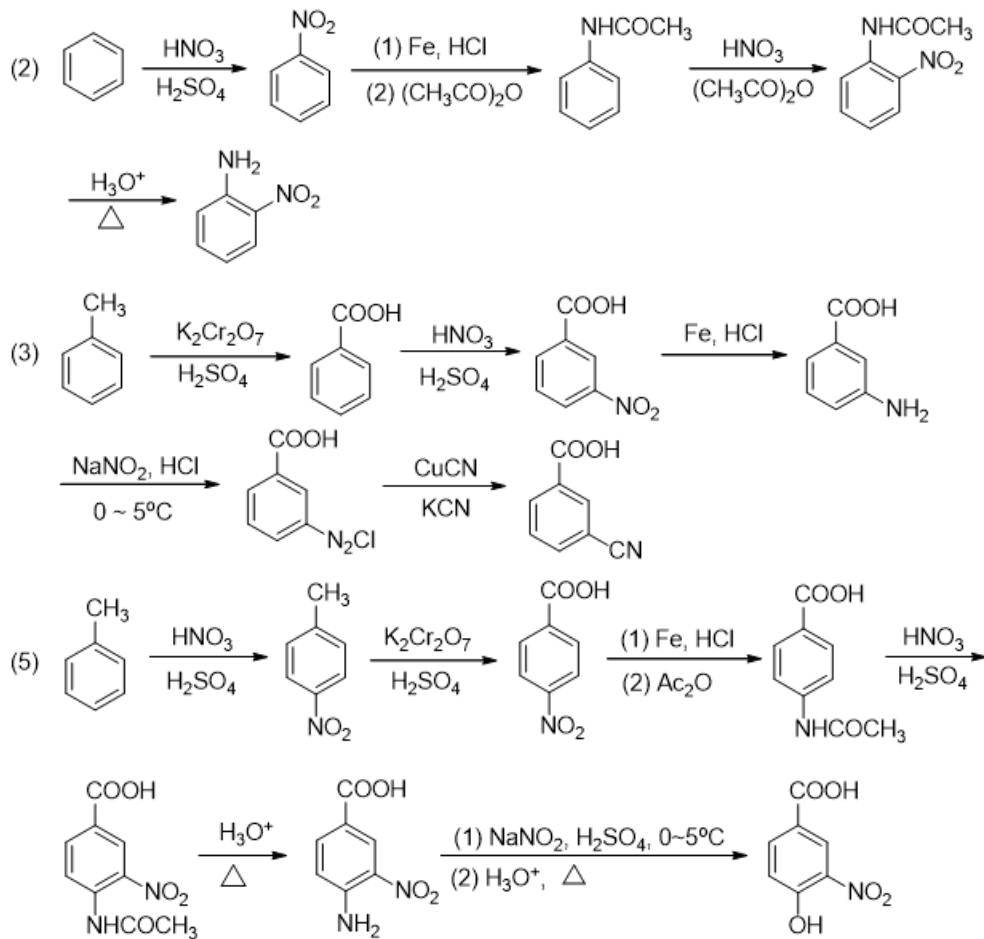
11. 从甲苯或苯为原料合成下列化合物：

(2) 邻硝基苯胺

(3) 间氨基苯甲酸

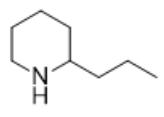


解答：

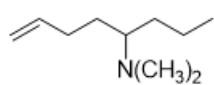


15. 某化合物 A，分子式为 $\text{C}_8\text{H}_{17}\text{N}$ ，其核磁共振氢谱无双重峰，它与 2 mol 碘甲烷反应，然后与湿的 Ag_2O 作用，接着加热，则生成一个中间体 B，其分子式为 $\text{C}_{10}\text{H}_{21}\text{N}$ 。B 进一步甲基化后与湿的 Ag_2O 作用，转变为氢氧化物，加热则生成三甲胺、1,5-辛二烯和 1,4-辛二烯混合物。写出 A 和 B 的结构式。

解答：根据题意推测得化合物 A、B 的结构如下：



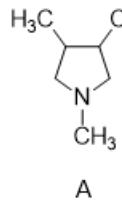
A



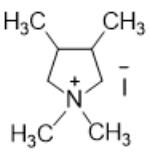
B

17. 化合物 A ($C_7H_{15}N$) 和碘甲烷反应得一水溶性化合物 B ($C_8H_{18}IN$)，B 和氢氧化银的水悬浮液加热得 C ($C_8H_{17}N$)，当 C 再和碘甲烷反应，并和氧化银悬浮水溶液加热得 D (C_6H_{10}) 和三甲胺，D 能吸收 2mol H_2 而得 E (C_6H_{14})。E 的 NMR 氢谱显示有一个七重峰和一个双重峰，它们的相对强度比例为 1:6。试推测 A、B、C、D、E 的结构。

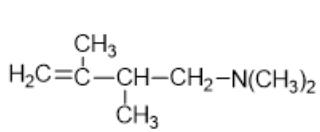
解答：根据题意推测得化合物 A、B、C、D、E 的结构如下：



A



B



C



D



E