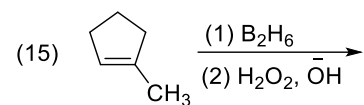
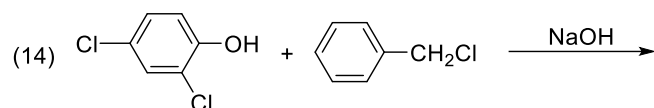
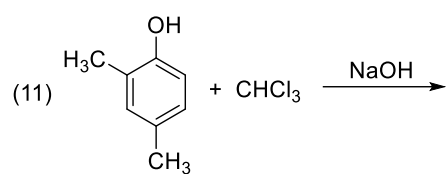
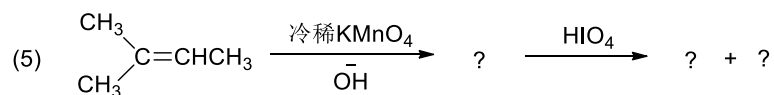
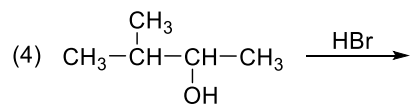
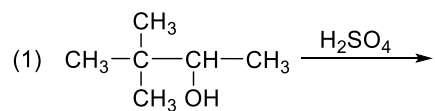


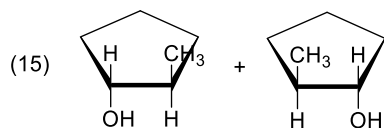
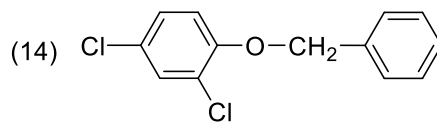
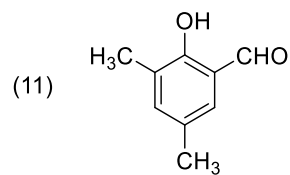
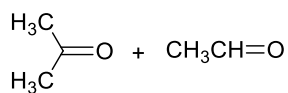
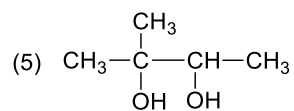
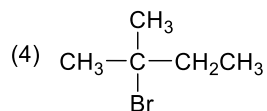
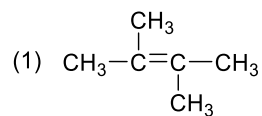
第十四次作业答案

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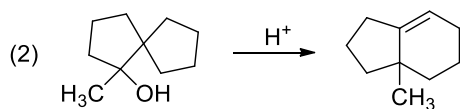
6. 完成下列各反应:



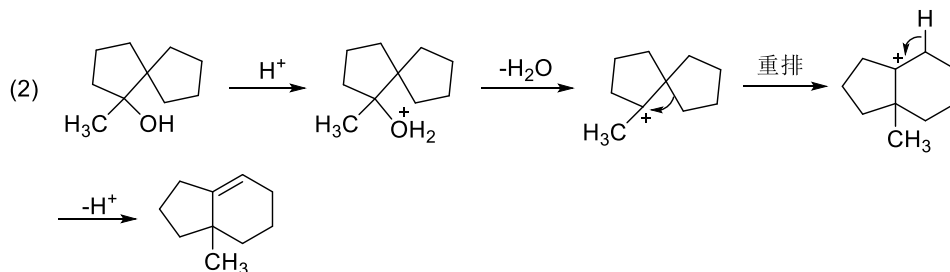
解答:



7. 用历程解释下列反应:



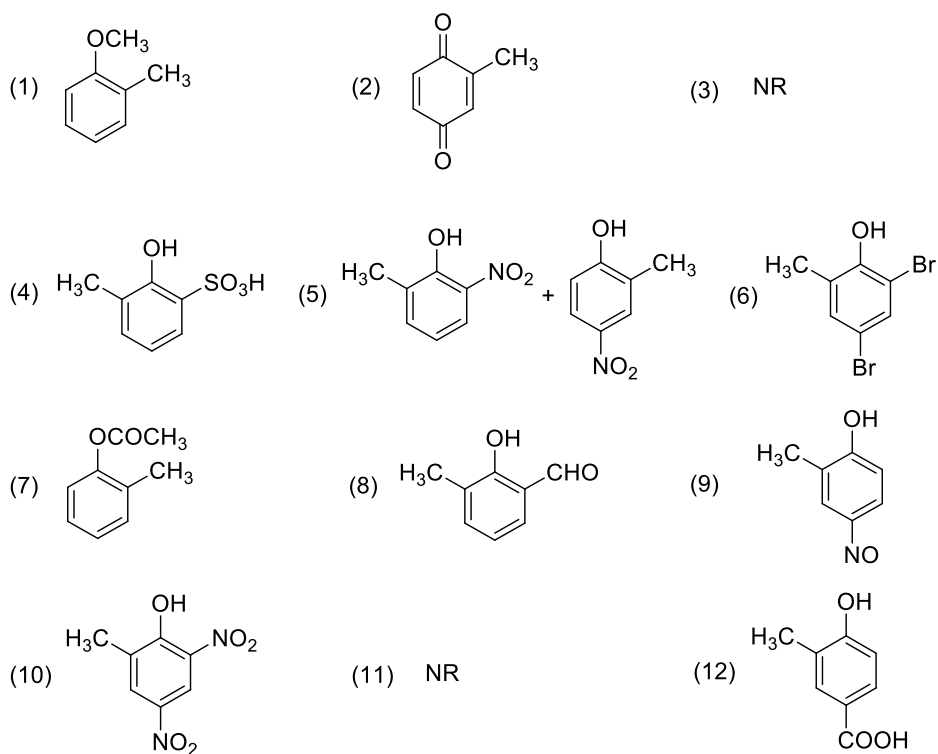
解答:



8. 写出邻甲苯酚与下列试剂反应的主要有机产物，如不反应请用“NR”表示:

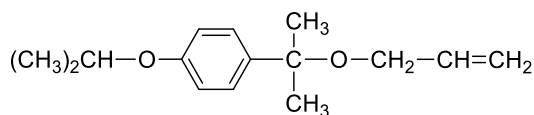
- | | | |
|---|---|--|
| (1) $(\text{CH}_3\text{O})_2\text{SO}_2, \text{NaOH}$ | (2) $\text{Na}_2\text{Cr}_2\text{O}_7, \text{H}_2\text{SO}_4$ | (3) $\text{CH}_3\text{COOH}, \text{H}_2\text{SO}_4$, 加热 |
| (4) $98\%\text{H}_2\text{SO}_4, 25^\circ\text{C}$ | (5) 冷、稀 HNO_3 | (6) $\text{Br}_2/\text{H}_2\text{O}$ |
| (7) $(\text{CH}_3\text{CO})_2\text{O}$ | (8) CHCl_3 , 浓 NaOH , 加热 | (9) HONO |
| (10) $\text{HNO}_3(2 \text{ mol})/\text{HOAc}$ | (11) HBr , 加热 | (12) $\text{CO}_2, \text{K}_2\text{CO}_3, 240^\circ\text{C}$ |

解答:

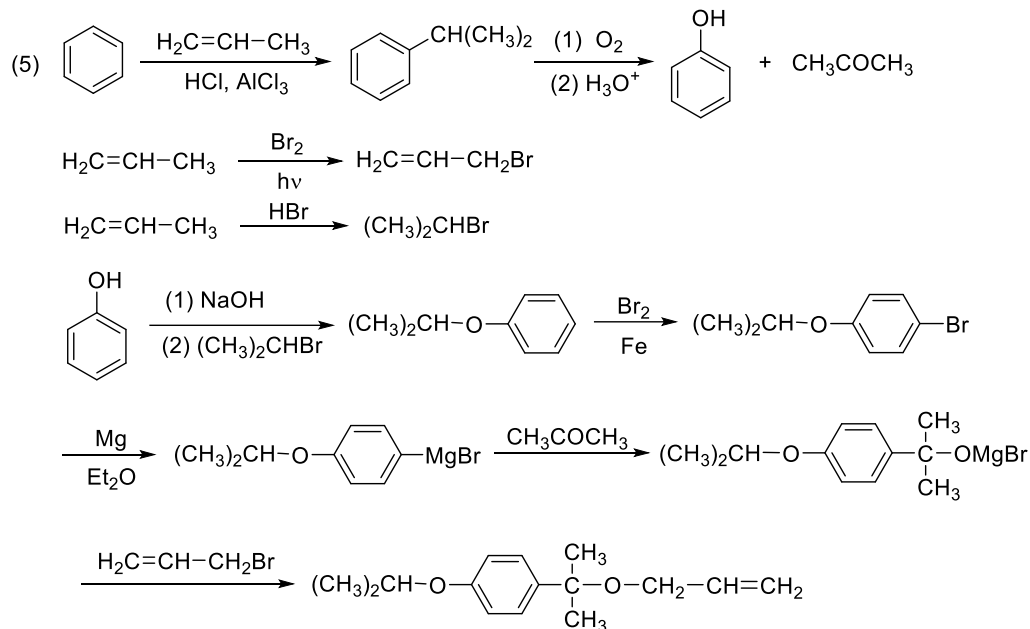


12. 利用指定原料进行合成（无机试剂和 C_2 及以下的有机试剂可以任选）:

(5) 用丙烯和苯合成



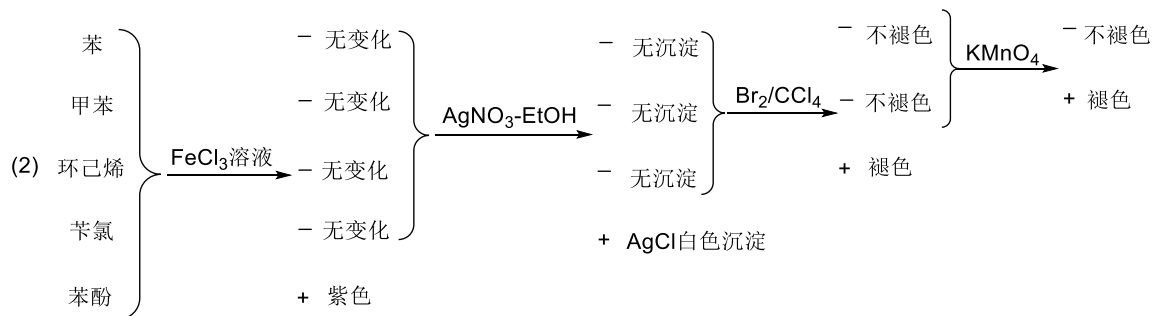
解答:



14. 用化学方法鉴别下列各组化合物:

(2) 苯、环己烯、甲苯、苄氯、苯酚

解答:

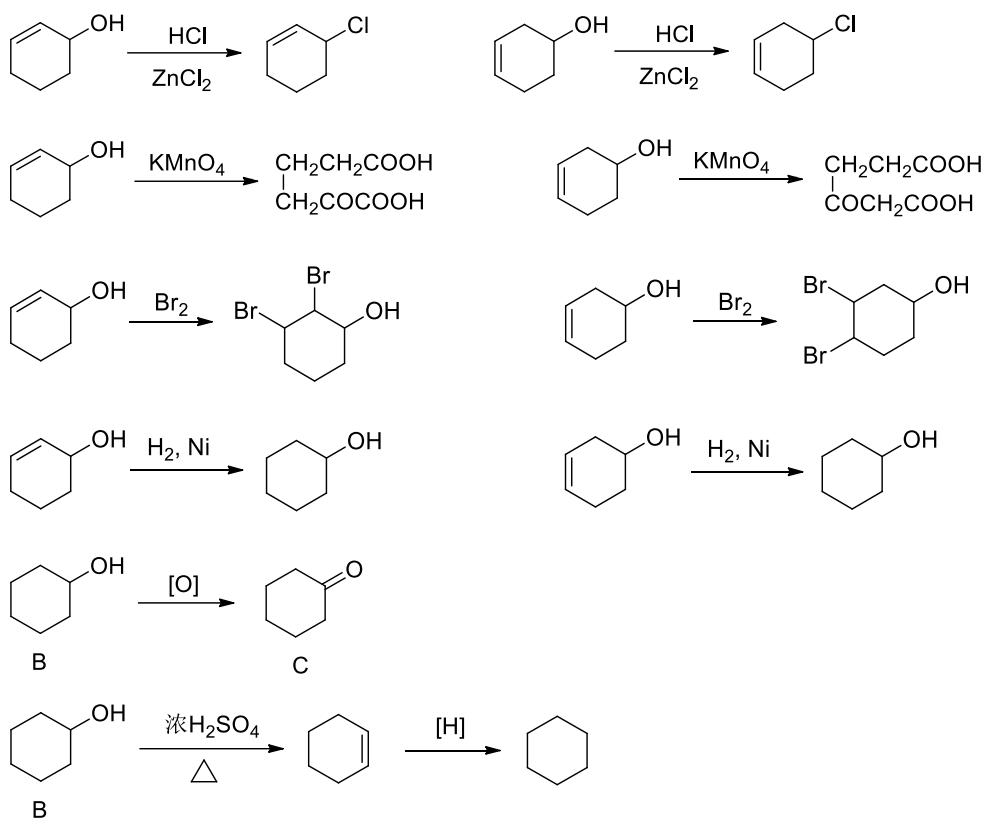


15. 分子式为 C₆H₁₀O 的化合物 A, 能与卢卡斯试剂反应, 亦可被 KMnO₄ 氧化, 并能吸收 1 mol Br₂, A 经催化加氢得 B, 将 B 氧化得 C (分子式为 C₆H₁₀O), 将 B 在加热下与浓硫酸作用的产物还原可得到环己烷。试推测 A 可能的结构, 写出各步反应式。

解答: 根据题意推测出化合物 A 的可能结构如下:



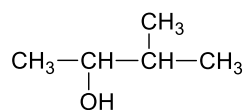
各步的反应式如下:



17. 分子式为 $C_5H_{12}O$ 的一般纯度的醇，具有下列 1H NMR 数据，试写出该醇的结构式。

δ 值	质子数	信号类型
(a) 0.9	6	二重峰
(b) 1.6	1	多重峰
(c) 2.6	1	单峰
(d) 3.6	1	八重峰
(e) 1.1	3	二重峰

解答： 根据化合物的分子式及核磁共振氢谱数据推测出该醇的结构如下：



其核磁共振氢谱的归属如下：

