

2019耀华高三一模

一、选择题（每题6分，共36分）

1 D 2 B 3 A 4 C 5 D 6 C

二、非选择题（64分）

7

(1) 1:第五周期第ⅦA

2:78

(2) 电子层数增多，原子半径增大，得电子的能力减弱，对应离子失电子能力增强，还原性增强

(3) $\begin{array}{c} \text{H} \\ | \\ [\text{H}:\text{N}:\text{H}]^+[\text{I}:\ddot{\text{I}}:]^- \\ | \\ \text{H} \end{array}$ ；碘化铵溶液呈酸性， $c(\text{H}^+)$ 浓度增大， $c(\text{OH}^-)$ 溶度减小，促使平衡， $2\text{H}_2\text{O} + 4\text{I}^- + \text{O}_2 \rightleftharpoons 2\text{I}_2 + 4\text{OH}^-$ 正向移动，反应程度增大，使碘离子易被氧气氧化。

(4) ① $3.0 \times 10^{-2} \text{mol} \cdot \text{L}^{-1}$

② $\text{H}_2\text{O} + 2\text{I}^- + \text{O}_3 = \text{I}_2 + 2\text{OH}^- + \text{O}_2$

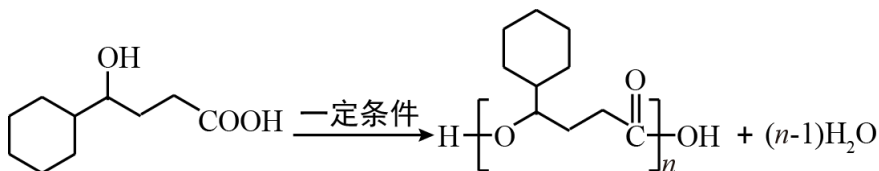
③ $2\text{Fe}^{2+} + \text{O}_3 + 5\text{H}_2\text{O} = 2\text{Fe}(\text{OH})_3 + 4\text{H}^+ + \text{O}_2$

④ BC

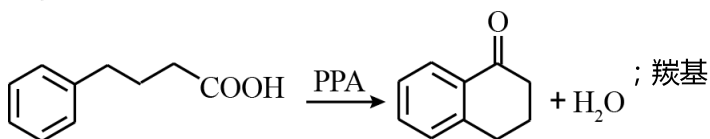
8

(1) 煤焦油的分馏或石油的催化重整

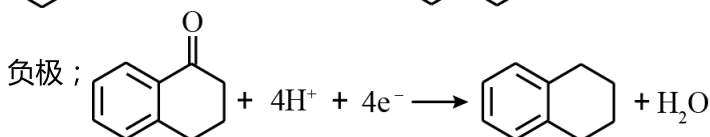
(2)



(3)



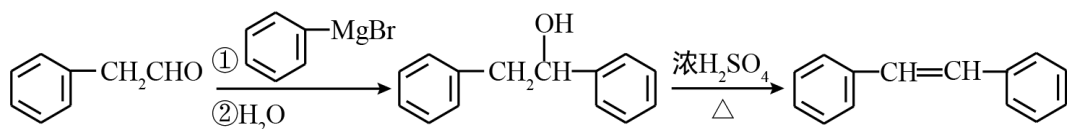
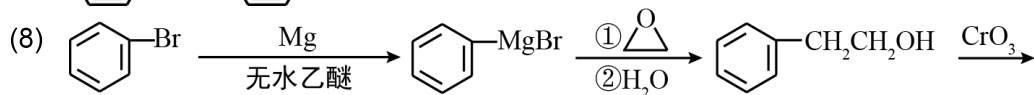
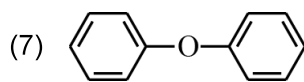
(4)



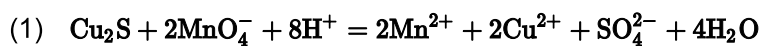
(5) 氧化反应

(6) 1:19

2:14



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(2) 1: 除去溶解在水中的氧气, 防止亚铁离子被氧化

2: 胶头滴管

(3) 酸式滴定管

(4) 溶液由蓝色变为无色且半分钟内不恢复原色

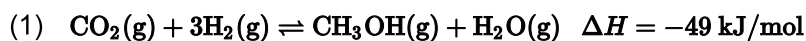
(5) 1: 61.5

2: 36.9

(6) 1: 偏低

2: 偏高

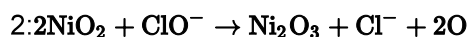
10



(2) 1: 0.03

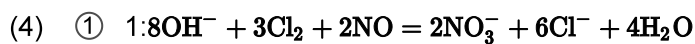
2: 11.25

(3) ① 1: 催化剂



3: Ca^{2+} 与 SO_4^{2-} 结合成难溶的 CaSO_4 , 有利于反应进行

② 3: 1



2: H_2

② NaClO 在酸性条件下氧化性增强