

2019年天津南开区高三二模化学试卷

一、单选题 (每小题6分 , 共36分)

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

二、非选择题 (共4小题 , 共64分)

7 (1) 第三周期第IVA族

(2) 1: $\text{r}(\text{S}^{2-})$

2: $\text{r}(\text{O}^{2-})$

3: $\text{r}(\text{Mg}^{2+})$

4: $\text{r}(\text{Al}^{3+})$

5: HClO_4

6: H_2SO_4

7: HF

8: HCl

(3) 1: C_2H_2

2: $\text{CaC}_2 + 2 \text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2 + \text{C}_2\text{H}_2 \uparrow$

(4)
$$\begin{array}{c} \text{H} \\ | \\ [\text{H}:\ddot{\text{N}}:\text{H}]^+[:\ddot{\text{Cl}}:]^- \\ | \\ \text{H} \end{array}$$

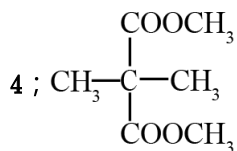
(5) 1: H_2 、 Cl_2 、 NaOH

2: $\text{PbO}_2(\text{s}) + 4\text{H}^+(\text{aq}) + \text{SO}_4^{2-}(\text{aq}) + 2\text{e}^- = \text{PbSO}_4(\text{s}) + 2 \text{H}_2\text{O}(\text{l})$

8 (1) $\text{C}_{10}\text{H}_{20}$

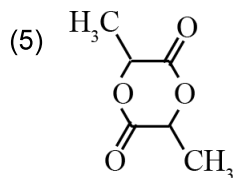
(2) 羰基、羧基

(3)

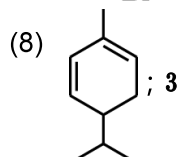
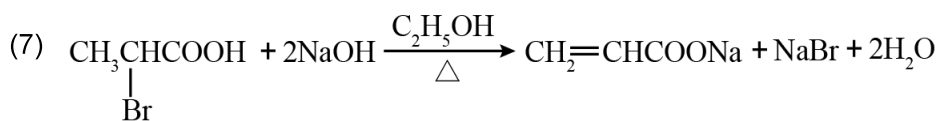


(4) 1:加成反应 (或还原反应)

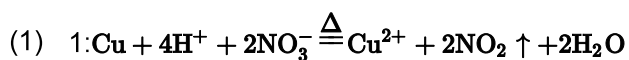
2:取代反应



(6) 聚丙烯酸钠



9



2: Au、Pt

(2) 1:将 Fe^{2+} 氧化为 Fe^{3+}

2:不引入杂质,对环境无污染

3: Fe^{3+} 、 Al^{3+}

(3) 加热脱水

(4) 1:甲

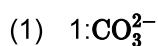
2:所得产品中含有较多 $\text{Fe}_2(\text{SO}_4)_3$ 杂质

3:乙

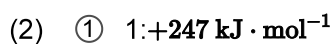
(5) ① $\frac{c \text{ mol} \cdot \text{L}^{-1} \times b \times 10^{-3} \text{ L} \times 250 \text{ g} \cdot \text{mol}^{-1} \times 5}{a \text{ g}} \times 100\%$

② C

10



2: 2 : 1



2: C

$$3:\frac{1}{3}$$

② 1:劣于

2:相对于催化剂 **X** , 催化剂 **Y** 积碳反应的活化能大, 积碳反应的速率小, 而消碳反应活化能相对小, 消碳反应速率大

(3) ① 负

