第十章 羧酸与取代羧酸

1. (1) 对苯二甲酸

(2) 4-苯甲酰基苯乙酸

(3) 3,4-二甲基-5-氧代己酸

(4) 3-(3-甲基-5-羟基苯基)丙烯酸

(5) 2-环己酮羧酸

(6) 3-(4-甲基苯基)丁酸

2. (1) b > c > a > d > e (2) b > d > a > c (3) c > b > d > a (4) a > b > c > d

4. (1) (CH₃)₂CCOOH (2) CH₃CH₂CH₂COOH (3) (CH₃)₂CHCH₂CH₂OH Вr



(8)
$$OH$$
 O O II $COONa$ O II $COOH$ $COOH$ O II $COOH$ $COOH$ $COOH$ $COOH$ $COOH$

4.(1) ① CH₃CH₂CHCH₃ HBr CH₃CH₂CHCH₃ Mg CH₃CH₂CHCH₃ 大水乙醚 CH₃CH₂CHCH₃ MgBr

OH HBr Br Mg 无水乙醚 BrMg

$$HO$$
 OH $\frac{KMnO_4}{H^+}$ TM

(2) ①
$$CH_3Cl$$
 KH_2SO_4 KH_2SO_4 KH_2SO_3H KH_2SO_3H

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$$\begin{array}{c} O \\ O \\ O \\ \end{array} \begin{array}{c} + \\ O \\ \end{array} \begin{array}{c} AlCl_3 \\ \end{array} \begin{array}{c} Hg/Zn \\ HCl \\ \end{array} \begin{array}{c} HG/Zn \\ HO \\ \end{array} \begin{array}{c} O \\ HCl \\ \end{array} \begin{array}{c} HG/Zn \\ HO \\ \end{array} \begin{array}{c} O \\ HO$$