9/16/13

Practice test has been posted

\[
\text{Structure 1} \rightarrow H^+ \rightarrow \text{Structure 2} + \text{Structure 3}
\]

\[
\text{Structure 2} \rightarrow \text{Structure 4} + \text{Structure 5}
\]

\[
\text{Structure 4} + \text{A}
\]
Reactions of Arene Sidechains

Reduction

 Clemmenson Reduction

\[ \text{Clemmenson} \xrightarrow{X, H^+} \]

Metals (Fe, Sn, Zn) \( \Rightarrow \) donating e\(^{-}\)

\[ \text{Fe, HCl} \rightarrow \text{“} \xrightarrow{H_2O} \rightarrow \text{“} \xrightarrow{H^+} \]

\[ \text{H}^+ \xrightarrow{e^{-}} \]

\[ \text{HCl} \rightarrow \text{Fe/HCl} \rightarrow \]

\[ \text{AlCl}_3 \text{ heat} \]
Wolff-Kishner Reduction
Oxidation by KMnO₄ (Requires benzylc-H benzylc OH)
Reminder

K\text{MnO}_4 \rightarrow \text{KOH} \rightarrow \text{KHM}

\text{NO HEAT!}

\begin{align*}
\text{CH}_2 &= \text{KOH} \\
\text{OH} &= \text{KOH} \\
\text{Cold} &= \text{KOH}
\end{align*}

\text{C}_\text{H}_2 \xrightarrow{\text{KOH}} \text{C}_\text{H}_2 \text{OH} \rightarrow \text{C}_\text{H}_2 \text{CO}_2

\text{Note: with KOH,}

R \text{C}_\text{H}_2 \text{OH} \rightarrow R \text{CO}_2
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxx a b)

D - There is no reaction or the correct product is not listed here.

A C

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxx a b)

E - There is no reaction or the correct product is not listed here.

D F

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxx a b)

E - There is no reaction or the correct product is not listed here.

D F

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxx a b)

E - There is no reaction or the correct product is not listed here.

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D F