12.14 (a)

(b)

12.14 (c)

(d)

12.14 (e)

(e)

12.14 (f)

(f)

12.14 (g)

(g)

12.14 (h)

(h)

12.14 (i)

(i)

12.14 (j)

(j)

12.14 (k)

(k)

12.14 (l)

(l)
Chapter 12

12.14

(a) \( \text{OCH}_2\text{CH}_3 \)

(b) \( \text{HO-N-CH}_3 \)

(c) \( \text{SPh} \)

(d) \( \text{OH} \)

(e) \( \text{hemiketal} \)

(f) \( \text{hemiaminal} \)

(g) \( \text{hemithioketal} \)

(h) \( \text{hydrate} \)

(i) \( \text{hemiketal} \)

(j) \( \text{hemiacetal} \)

(k) \( \text{hemithioacetal} \)

(l) \( \text{hemiacetal} \)
note that there are many different possible structures; check with each other to see if you agree on the decisions you have made

balanced equation

\[ C_9H_{20}O_2 \text{ ketal} \rightarrow +2 \text{ HOCH}_2\text{CH}_3 \]

overview

mechanism
note that there are different possible structures; check with each other to see if you agree on the decisions you have made.

balanced equation

\[
\begin{align*}
\text{HOCH}_2\text{CH}_3 + \text{TsOH} & \rightarrow \text{C}_8\text{H}_{16}\text{O}_2 \text{ acetal} \\
\text{OCH}_2\text{CH}_3 + \text{H}_2\text{O} & \rightarrow 
\end{align*}
\]

overview

mechanism
note that there are many different possible structures; check with each other to see if you agree on the decisions you have made

balanced equation

\[
\text{C}_6\text{H}_{13}\text{N imine} + \text{H}_2\text{NCH}_2\text{CH}_3 \rightarrow \text{C}_6\text{H}_{13}\text{N imine} + \text{H}_2\text{O}
\]

overview

mechanism

![Diagram of the mechanism of the reaction.](image-url)
note that there are different possible structures; check with each other to see if you agree on the decisions you have made

balanced equation

\[
\text{C}_6\text{H}_{12}\text{S}_2 \text{ dithioacetal}
\]

hydrolysis

overview

mechanism