A 1,1-elimination or α-elimination is an elimination reaction in which an organic compound loses two ligands from the same atom. eg:

\[
\begin{align*}
\text{H} -\text{C} -\text{Cl} & \quad + \quad \text{NaOH} \quad \rightarrow \quad \text{Cl} -\text{C} -\text{Cl} \\
\text{Cl} & \quad + \quad \text{H}_2\text{O} \quad + \quad \text{NaCl}
\end{align*}
\]

net reaction:

\[
\begin{align*}
\text{H}^+ & \quad \text{H} -\text{C} -\text{Cl} \quad \rightarrow \quad \text{Cl}^{-} \\
\end{align*}
\]

In this elimination reaction, the two ligands 1 loses, H and Cl, are on the same atom. Therefore, this elimination reaction is a 1,1-elimination reaction.

see also 1,2-elimination

Contributors

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