A wax is a saponifiable lipid, which is structurally a carboxylic acid ester formed by the condensation reaction of a fatty acid and a long-chain alcohol.

\[
\begin{align*}
\text{fatty acid} & \quad + \quad \text{long-chain alcohol} \\
\text{CH}_3(\text{CH}_2)_n\text{COOCH}_3 & \quad \rightarrow \quad \text{CH}_3(\text{CH}_2)_n\text{C(OR)}(\text{CH}_2)_n\text{CH}_3 + \text{H}_2\text{O}
\end{align*}
\]

Contributors

- Gamini Gunawardena from the OChemPal site (Utah Valley University)