A carboxylic acid is a carbonyl compound that has the following general structural formula.

\[
\begin{array}{c}
\text{R} \\
\text{C} \\
\text{O} \\
\text{O}---\text{H}
\end{array}
\]

\( \text{R} = \text{H, alkyl group, aryl group} \)

eg:

\[
\begin{array}{c}
\text{H--C} \\
\text{O}---\text{H} \\
\text{C}_2\text{H}_5---\text{C} \\
\text{O}---\text{H} \\
\text{C}---\text{C}---\text{O} \\
\text{O}---\text{H}
\end{array}
\]

The —COOH group in a carboxylic acid is called the carboxylic acid group.

see also oxoacid

**Contributors**

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