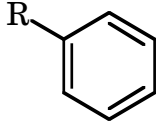


Common Functional Groups in Organic Molecules

General Formula	Name	General Formula	Name
$\text{R}-\text{CH}_2-\text{H}$	Alkane	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{H} \end{array}$	Aldehyde
$\text{R}-\text{CH}=\text{CH}_2$	Alkene	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{R} \end{array}$	Ketone
$\text{R}-\text{C}\equiv\text{CH}$	Alkyne	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{OH} \end{array}$	Carboxylic acid
	Aromatic	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{O}-\text{R} \end{array}$	Ester
$\text{R}-\text{NH}_2$	1° Amine	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{NH}_2 \end{array}$	1° Amide
$\begin{array}{c} \text{R} \\ \\ \text{R}-\text{NH} \end{array}$	2° Amine	$\begin{array}{c} \text{O} \quad \text{R} \\ \quad \\ \text{R}-\text{C}-\text{NH} \end{array}$	2° Amide
$\begin{array}{c} \text{R} \\ \\ \text{R}-\text{N} \\ \\ \text{R} \end{array}$	3° Amine	$\begin{array}{c} \text{O} \quad \text{R} \\ \quad \\ \text{R}-\text{C}-\text{N} \\ \\ \text{R} \end{array}$	3° Amide
$\text{R}-\text{CH}_2-\text{X}$	1° Alkyl halide		
$\begin{array}{c} \text{R} \\ \\ \text{R}-\text{CH}-\text{X} \end{array}$	2° Alkyl halide	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{X} \end{array}$	Acid halide (acyl halide)
$\begin{array}{c} \text{R} \\ \\ \text{R}-\text{C}-\text{X} \\ \\ \text{R} \end{array}$	3° Alkyl halide		
$\text{R}-\text{CH}_2-\text{OH}$	1° Alcohol		
$\begin{array}{c} \text{R} \\ \\ \text{R}-\text{CH}-\text{OH} \end{array}$	2° Alcohol	$\begin{array}{c} \text{O} \quad \text{O} \\ \quad \\ \text{R}-\text{C}-\text{O}-\text{C}-\text{R} \end{array}$	Acid anhydride
$\begin{array}{c} \text{R} \\ \\ \text{R}-\text{C}-\text{OH} \\ \\ \text{R} \end{array}$	3° Alcohol		
$\text{R}-\text{O}-\text{R}$	Ether	$\text{R}-\text{C}\equiv\text{N}$	Nitrile