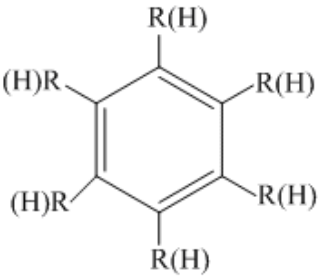
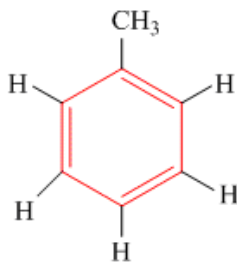
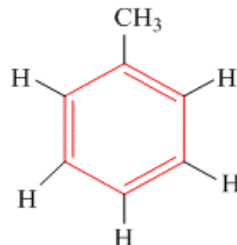


Compound Class	General Structure	Functional Group	Example
<a href="#">Alcohols</a>	$R-OH$	$-OH$ Hydroxyl group	$\begin{array}{c} H \\   \\ CH_3C-OH \\   \\ H \end{array}$ Ethanol
<a href="#">Aldehydes</a>	$\begin{array}{c} O \\    \\ R-C-H \end{array}$	$\begin{array}{c} O \\    \\ -C-H \end{array}$ Carbonyl group	$\begin{array}{c} O \\    \\ CH_3CH_2C-H \end{array}$ Propanal
<a href="#">Alkanes</a>	$R-H$	None	$CH_3CH_2CH_2CH_2CH_3$ Pentane
<a href="#">Alkenes</a>	$\begin{array}{ccc} (H)R & & R(H) \\ & \diagdown \quad \diagup & \\ & C=C & \\ & \diagup \quad \diagdown & \\ (H)R & & R(H) \end{array}$	$\begin{array}{c} \diagdown \quad \diagup \\ C=C \\ \diagup \quad \diagdown \end{array}$ Carbon-carbon double bond	$\begin{array}{ccc} H_3C & & CH_3 \\ & \diagdown \quad \diagup & \\ & C=C & \\ & \diagup \quad \diagdown & \\ H & & H \end{array}$ <i>cis</i> -2-Butene
<a href="#">Alkynes</a>	$(H)R-C \equiv C-R(H)$	$-C \equiv C-$ Carbon-carbon triple bond	$CH_3C \equiv CCH_3$ 2-Butyne
Amides	$\begin{array}{c} O \\    \\ R-C-N-R'(H) \\   \\ R''(H) \end{array}$	$\begin{array}{c} O \\    \\ -C-N- \\   \end{array}$ Carboxamide group	$\begin{array}{c} O \\    \\ CH_3CH_2CH_2C-NH_2 \end{array}$ Butanamide

Amines	$\begin{array}{c} \text{R}-\text{N}-\text{R}'(\text{H}) \\   \\ \text{R}''(\text{H}) \end{array}$	$\begin{array}{c} -\text{N}- \\   \end{array}$ Amino group	$\begin{array}{c} \text{H}_3\text{C}-\text{N}-\text{CH}_3 \\   \\ \text{CH}_3 \end{array}$ <i>N,N</i> -Dimethylmethanamine (Trimethylamine)
Anhydrides	$\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{R}'(\text{H})$	$\begin{array}{c} \text{O} \quad \text{O} \\ \parallel \quad \parallel \\ -\text{C}-\text{O}-\text{C}- \end{array}$	$\text{CH}_3\text{CH}_2-\overset{\text{O}}{\parallel}{\text{C}}-\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_2\text{CH}_3$ Propanoic anhydride
<a href="#">Aromatics</a>		 Methylbenzene (Toluene)	 Methylbenzene (Toluene)
Carboxylic Acids	$\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-\text{OH}$	$\begin{array}{c} \text{O} \\ \parallel \\ -\text{C}-\text{OH} \end{array}$ Carboxyl group	$\text{CH}_3\text{CH}_2-\overset{\text{O}}{\parallel}{\text{C}}-\text{OH}$ Propanoic acid
<a href="#">Esters</a>	$\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-\text{O}-\text{R}'$	$\begin{array}{c} \text{O} \\ \parallel \\ -\text{C}-\text{O}- \end{array}$ Carboalkoxy group	$\text{CH}_3\text{CH}_2-\overset{\text{O}}{\parallel}{\text{C}}-\text{O}-\text{CH}_3$ Methyl propanoate (Methyl propionate)
<a href="#">Ethers</a>	$\text{R}-\text{O}-\text{R}'$	$-\text{O}-$ Oxygen between two alkyl groups	$\text{CH}_3\text{CH}_2-\text{O}-\text{CH}_3$ Methoxymethane (Ethyl methyl ether)
<a href="#">Haloalkanes</a>	$\text{R}-\text{X}$	$-\text{X}$ X = F, Cl, Br, I	$\text{CH}_3\text{CH}_2\text{CH}_2-\text{Br}$ Bromopropane

<a href="#">Ketones</a>	$\begin{array}{c} \text{O} \\ \parallel \\ \text{R}-\text{C}-\text{R}' \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ -\text{C}- \end{array}$ Carbonyl group	$\text{CH}_3\text{CH}_2-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_2\text{CH}_3$ 3-Pentanone
Nitriles	$\text{R}-\text{C}\equiv\text{N}$	$-\text{C}\equiv\text{N}$ Cyano group	$\text{CH}_3-\text{C}\equiv\text{N}$ Ethanenitrile (Acetonitrile)
Thiols	$\text{R}-\text{SH}$	$-\text{SH}$ Sulfhydryl group	$\text{CH}_3\text{CH}_2\text{CH}_2-\text{SH}$ Propanethiol