


Type of compound	General structure	Type of compound	General structure
Alkane	$R-H$	Aldehyde	$\begin{array}{c} :O: \\ \\ R-C-H \end{array}$
Alkene	$\begin{array}{c} \diagup \quad \diagdown \\ C=C \\ \diagdown \quad \diagup \end{array}$	Ketone	$\begin{array}{c} :O: \\ \\ R-C-R \end{array}$
Alkyne	$-C\equiv C-$	Carboxylic acid	$\begin{array}{c} :O: \\ \\ R-C-\ddot{O}H \end{array}$
Aromatic compound		Ester	$\begin{array}{c} :O: \\ \\ R-C-\ddot{O}R \end{array}$
Alkyl halide	$R-\ddot{X}: \\ (X = F, Cl, Br, I)$	Amide	$\begin{array}{c} :O: \\ \\ R-C-\ddot{N} \begin{array}{l} H \text{ (or R)} \\ \\ H \text{ (or R)} \end{array} \end{array}$
Alcohol	$R-\ddot{O}H$	Acid chloride	$\begin{array}{c} :O: \\ \\ R-C-\ddot{Cl}: \end{array}$
Ether	$R-\ddot{O}-R$		
Amine	$R-\ddot{N}H_2 \text{ or} \\ R_2\ddot{N}H \text{ or } R_3\ddot{N}$		
Thiol	$R-\ddot{S}H$		
Sulfide	$R-\ddot{S}-R$		