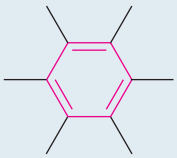
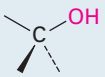
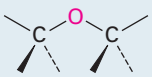
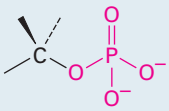
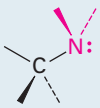
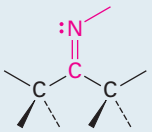
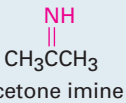
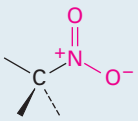
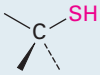
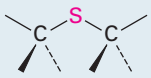
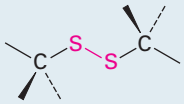
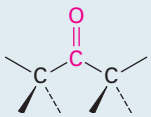
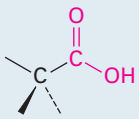
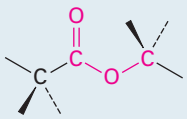
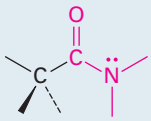
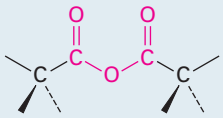
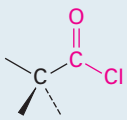
Table 3.1 Structures of Some Common Functional Groups

Name	Structure*	Name ending	Example
Alkene (double bond)		*-ene*	$H_2C{=}CH_2$ Ethene
Alkyne (triple bond)	—C≡C—	*-yne*	HC≡CH Ethyne
Arene (aromatic ring)		None	 Benzene
Halide	 (X = F, Cl, Br, I)	None	CH_3Cl Chloromethane
Alcohol		*-ol*	CH_3OH Methanol
Ether		*ether*	CH_3OCH_3 Dimethyl ether
Monophosphate		*phosphate*	$CH_3OPO_3^{2-}$ Methyl phosphate
Amine		*-amine*	CH_3NH_2 Methylamine
Imine (Schiff base)		None	 Acetone imine
Nitrile	—C≡N	*-nitrile*	$CH_3C{\equiv}N$ Ethanenitrile
Nitro		None	CH_3NO_2 Nitromethane
Thiol		*-thiol*	CH_3SH Methanethiol

*The bonds whose connections aren't specified are assumed to be attached to carbon or hydrogen atoms in the rest of the molecule.

(continued)

Table 3.1 Structures of Some Common Functional Groups *(continued)*

Name	Structure*	Name ending	Example
Sulfide		*sulfide*	CH_3SCH_3 Dimethyl sulfide
Disulfide		*disulfide*	CH_3SSCH_3 Dimethyl disulfide
Carbonyl			
Aldehyde		*-al*	CH_3CH Ethanal
Ketone		*-one*	CH_3CCH_3 Propanone
Carboxylic acid		*-oic acid*	CH_3COH Ethanoic acid
Ester		*-oate*	CH_3COCH_3 Methyl ethanoate
Amide		*-amide*	CH_3CNH_2 Ethanamide
Carboxylic acid anhydride		*-oic anhydride*	CH_3COCCH_3 Ethanoic anhydride
Carboxylic acid chloride		*-oyl chloride*	CH_3CCl Ethanoyl chloride

*The bonds whose connections aren't specified are assumed to be attached to carbon or hydrogen atoms in the rest of the molecule.