



Simplified Molecule Diagrams

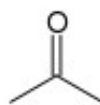
It turns out to be easy to figure where all the hydrogens are located in an organic molecule without showing them explicitly in the diagram. As a result, they are usually not shown. Furthermore, carbon atoms are located at the bends and ends of the bonds, so they are also not usually shown. Other atoms like oxygen and nitrogen are always shown as are hydrogens attached to those other atoms.

propane C_3H_8 (carbons zig-zag) 


n-propanol=1-propanol C_3H_7OH (oxygen at end) 

isopropanol=2-propanol $(CH_3)_2CHOH$ (oxygen in middle) 



glycerol ($C_3H_8O_3$) 

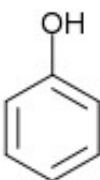

acetone $(CH_3)_2CO$ 

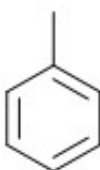
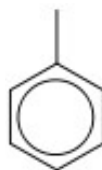
octane C_8H_{18} 

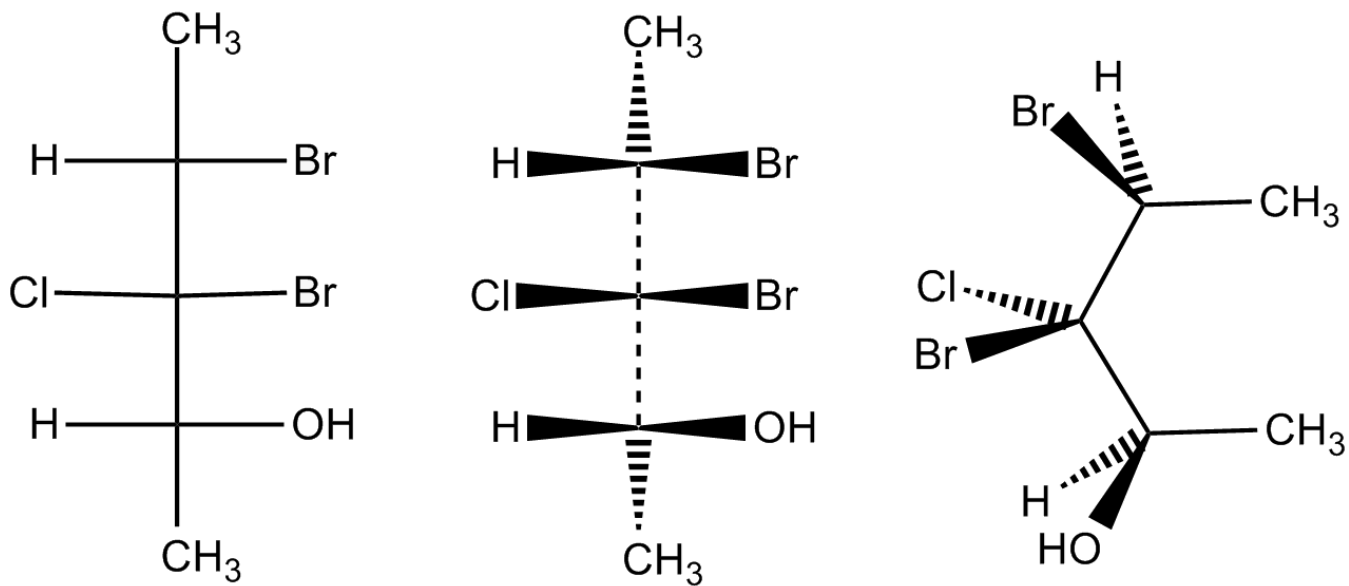
cyclohexane C_6H_{12} 

The symmetrical double bonds in benzene rings are often shown with an inner circle to indicate that the bonding electrons are shared by all 6 carbon atoms. Here are some examples:

benzene C_6H_6 (alternate double bonds in loop, aromatic)  or 

phenol C_6H_5OH  

toluene $C_6H_5CH_3$  



All the same conformation
of the same molecule

