

(8) Today

Sections 1.12
Drawing Chemical Structures

Next Class (9)

Sections 1.12
Drawing Chemical Structures

Sections 2.1 - 2.4
Polar Covalent Bonds, Formal Charges,
Resonance/Electron Delocalization

Bring Modeling Kits

(10) Second Class from Today

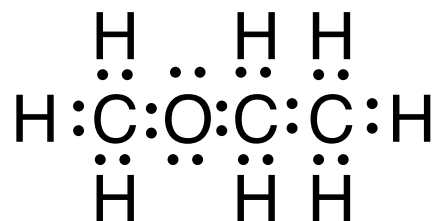
Sections 2.4 – 2.6
Resonance/Electron Delocalization

Bring Modeling Kits

Third Class from Today (11)

Sections 2.4 – 2.6
Resonance/Electron Delocalization

Sections 2.7 – 2.11
Acids and Bases

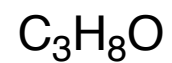


Chemists use different drawings to place emphasis on different aspects of a molecule.

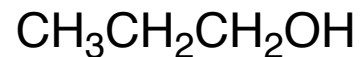
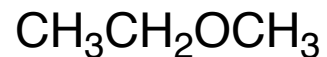
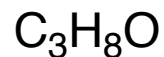
Representations are used to solve typographical issues.

Molecular Formulas as Compared to Condensed Structures/Structural Formulas

Section 1.12



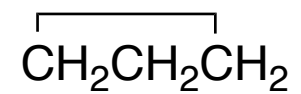
In organic, condensed structures typically start with a C, and everything immediately to the right of the C is connected to that first C. When the the first C is finally connected to the second C, now that atoms right of the second C are connected to second C. In acyclic unbranched molecules atoms to the right of the second C are not connected to the first C.

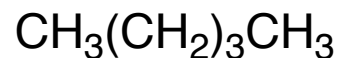


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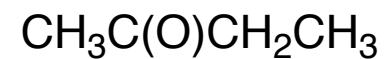
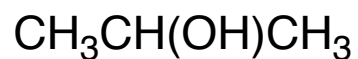
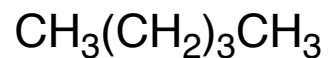
Because bonds are not drawn, condensed structures require the reader to bring some chemical knowledge to their interpretation.



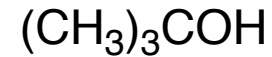
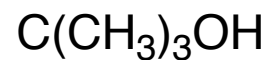


Parentheses () in structures are typically used to **set off side chains**, to indicate a **repeating unit**, or to indicate **multiple groups of the same structure**.

Often, chemists omit parentheses when they are not absolutely necessary,

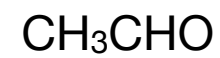


and sometimes chemists do things for aesthetic reasons.



Convert Condensed Structures with Bonds

Section 1.4



When a bond ends and the atom isn't labeled it is assumed to be C.

When there aren't enough bonds drawn to a C atom, the "missing" bonds are C atom to H atom bonds.

All other atoms are labeled.

Heptane

2-heptanol

Different structures serve different purposes, but they represent the same things

Converting Between Structure Types

Sections 1,4 1.6

