

## 6.16: Examples of Lewis Structures

Here are a set of examples showing 3D twirlymol molecular models of from other sections in the text, along with Lewis structures of these molecules as well. It is useful to see what can be conveyed via 3D models, molecular geometry for instance, and what is conveyed by Lewis structure models, an example being the assignment of electrons around atoms and assignment of electrons for bonding. An important clarification, is that the twirlymols display *connections*, not bonds, so double and triple bonds do not show up. Double and triple bonds are shown in the Lewis structures. Molecules from a common page are grouped together, with a link back to the original page.

### From Deciding on a Skeleton Structure

**Hypochlorous Acid:** HOCl

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### From Multiple Bonds

**Formaldehyde:** CH<sub>2</sub>O

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**Carbon Monoxide:** CO

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**Methanol:** CH<sub>3</sub>OH

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**Ethene:** C<sub>2</sub>H<sub>4</sub>

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**Carbon Dioxide:** CO<sub>2</sub>

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### From An Excess of Bonds

**Perchloric Acid:** HClO<sub>4</sub>

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**Nitrous Oxide:** N<sub>2</sub>O

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### From Resonance

**Ozone:** O<sub>3</sub>

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**Carbonate Ion:** CO<sub>3</sub><sup>2-</sup>

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## From Polyatomic Ions

**Sulfate Ion:**  $\text{SO}_4^{2-}$

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**Hydroxide Ion:**  $\text{OH}^-$

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**Hydronium Ion:**  $\text{H}_3\text{O}^+$

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**Ammonium Ion:**  $\text{NH}_4^+$

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**Sulfite Ion:**  $\text{SO}_3^{2-}$

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## Miscellaneous

**Acetic Acid:**  $\text{CH}_3\text{COOH}$

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**Ammonia:**  $\text{NH}_3$

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## Contributors

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