LEWIS STRUCTURES

In 1916, G. N. Lewis suggested, on the basis of chemical evidence, that chemical bonds involve two or more atoms sharing a pair of electrons and that an atom tends to hold eight electrons **(octet rule)** in its outermost or valence shell.

The **octet rule** correctly predicts the structure and stability of many molecules, of the representative elements.

For species that obey the **octet rule** it is possible to draw electron-dot, or Lewis, structures where lines represent bonding pairs and dots represent nonbonding pairs.

Bonding pair: pair of electrons shared between to atoms.

Lone pair: non-bonding pair of electrons on one atom.