**8.2 How Does Carbon Form So Many Compounds?**

The electronic configuration of carbon is 1s22s22p2. It can form a wide variety of compounds because:

* Each carbon atom has four valence electrons, all available for bonding with other atoms.
* A carbon atom can form strong covalent bonds with other carbon atoms.
* Bonds between carbon atoms can be single or multiple.

**Natural Gas**

Natural gas is often found with deposits of petroleum and are formed by chemical degradation of organic matter. With a lack of oxygen, over time, with heat and pressure this material is converted into many different compounds of carbon and hydrogen. These compounds are known as **hydrocarbons**.



**What are the common features of the chemicals listed?**