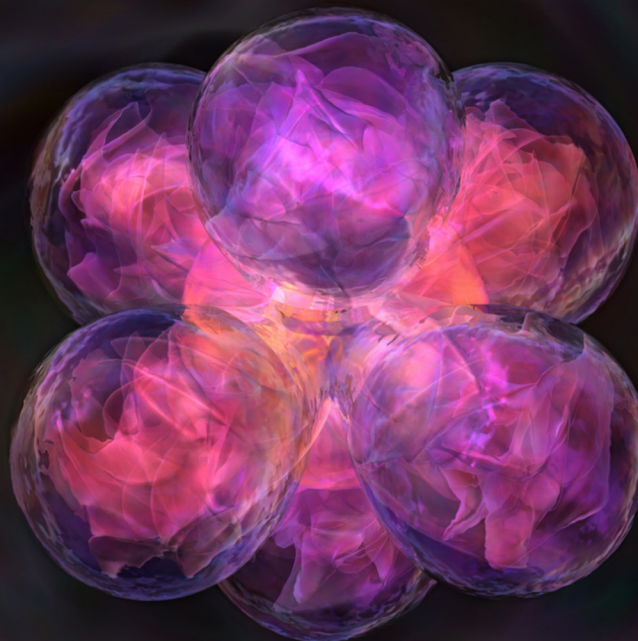


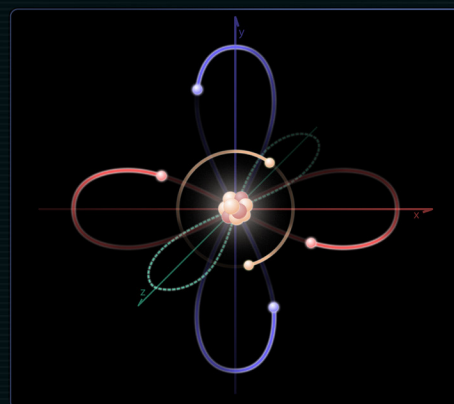
carbon



Atoms are the fundamental building blocks of matter.

The carbon atom is the chemical backbone of all life. Along with hydrogen, oxygen and nitrogen, carbon is one of the four most biologically important atoms. Carbon is an essential element of important organic compounds such as DNA and proteins, as well as inorganic compounds such as diamonds and fossil fuels.

The carbon atom's nucleus is made up of six protons and six neutrons. There are six electrons that orbit the nucleus, two in the first shell and four in the second. Schematically, the structure is represented below.



Atomic number: 6
Atomic symbol: C
Atomic weight: 12.01

Atomic radius: 70 pm
Electron configuration: $1s^2 2s^2 2p^2$
Electrons per shell: 2,4

Allotropic forms include: diamond, graphite, fullerenes, chaoite, carbon nanofoam, carbon nanotube and diamond nanorods.