Atoms, Periodic Table and the Bohr Model

Atoms are built from subatomic particles:

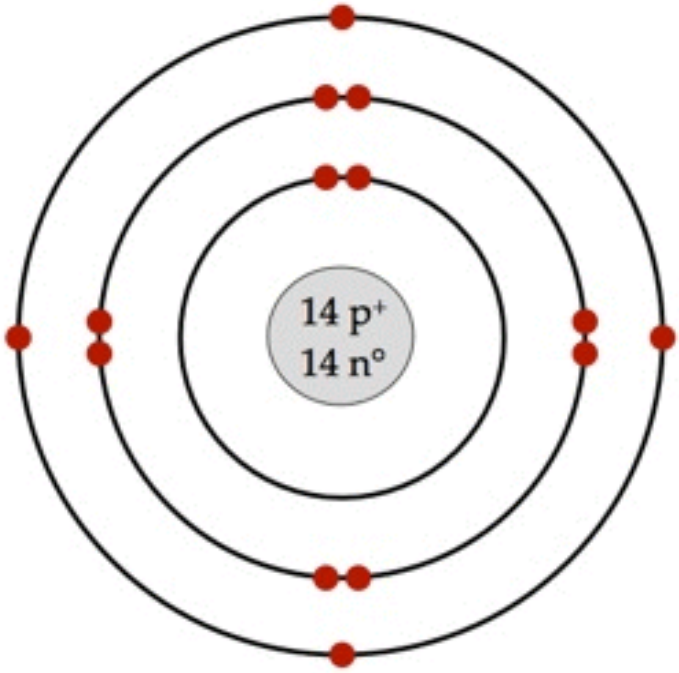
Name	Symbol	Charge	Mass	Location
proton	p^+	1+	1 u	nucleus
neutron	n	0	1 u	nucleus
electron	e^-	1–	0.00055 u	orbits nucleus

u is an "atomic mass unit"

The type of atom, the element, is determined by the number of protons found in the nucleus. The periodic table gives a list of elements in order of increasing number of protons. The number of electrons will try to match the number of protons in order to make the atom neutral.

Neils Bohr found that electrons orbit the nucleus in very specific ways. Electrons orbit energy shells that are of a fixed distance from the nucleus. Electrons will form pairs. The pairs repel each other. Each shell can contain a maximum number of electrons:

2 8 8 18 18 32 32



Silicon