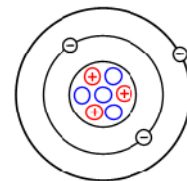


CHEMISTRY 6329 v4
**Relate similarities & differences within the periodic table
to atomic structure**



Chemistry
Level 1, 3 credits

Describe the structure of atoms, relate the chemical properties of elements to their electron arrangement, and derive the formulae of ionic compounds.

You will be able to:

- Describe the structure of atoms from their:
 - atomic number (number of protons / electrons)
 - mass number (number of protons plus neutrons)

- Describe ions
 - from their charge, atomic number and mass number
 - formed from atoms by considering the electron arrangements of the atoms

- Describe the distribution of electrons around a nucleus and the structure of ions
 - the first twenty elements of the periodic table
 - the ions formed by the first twenty elements of the periodic table

- Relate the position of the first twenty elements to their electron arrangement.
 - predict electron arrangements from the position of an element
 - predict positions in the periodic table from electron arrangements

- Relate similarities in the chemical properties of a group within the periodic table to their electron arrangement; groups may include
 - group 1 (alkali metals)
 - group 17 (halogens)
 - group 18 (inert gases)

- Work out the formulae of ionic compounds
 - formulae are written using given ions
 - monatomic ions eg Mg^{2+}
 - polyatomic ions eg SO_4^{2-}

+1	+2	+3	-1	-2
NH_4^+	Ca^{2+}	Al^{3+}	OH^-	O^{2-}
Na^+	Mg^{2+}	Fe^{3+}	Cl^-	S^{2-}
K^+	Cu^{2+}		NO_3^-	CO_3^{2-}
Ag^+	Pb^{2+}		HCO_3^-	SO_4^{2-}
	Fe^{2+}			
	Zn^{2+}			