Atomic spectrum

Like:
1. For both the spectra, lines lie in the same position for a given element
2. Lines converge at higher frequencies
3. Sets of lines represent transition from a particular energy level.

Different:
1. Absorption lines on a dark background
2. Emission lines on a coloured spectrum
3. Lines converge at higher frequencies

Bonding:
1. Covalent bonds:
   - Energy gaps are specific to each element
   - React at certain temperatures
   - Hydrogen bond a metal

~ Ionic: Metals react with non-metals
   - Ions are held together with electrostatic bonds
   - 1) Electrical conductivity
   - 2) Solubility in water

~ Metallic bonding:
   - Lattice of regularly spaced cations
   - Giant lattice (solid) [Ionic, covalent, metallic]

~ Molecular (gas) [macromolecular, simple molecular]