5.6: Heavy-Atom Method

An application of Patterson methods in crystal structure determination. For a compound containing a heavy atom (*i.e.* one with a significantly higher atomic scattering factor than the others present) the diffraction phases calculated from the position of the heavy atom are used to compute a first approximate electron density map. Further portions of the structure are recognizable as additional peaks in the map. Successive approximate electron density maps may then be calculated to solve the entire structure.