# 1.108: Unit cell

The **unit cell** is the parallelepiped built on the vectors, **a**, **b**, **c**, of a crystallographic basis of the direct lattice. Its volume is given by the scalar triple product, $V = (\mathbf{a}, \mathbf{b}, \mathbf{c})$ and corresponds to the square root of the determinant of the metric tensor.

If the basis is primitive, the unit cell is called the primitive cell. It contains only one lattice point. If the basis is non-primitive, the unit cell is a multiple cell and it contains more than one lattice point. The multiplicity of the cell is given by the ratio of its volume to the volume of a primitive cell.