simple cubic (sc)

Primitive cell: cube, side a (the *lattice constant*)

▶ primitive vectors $\vec{a} = a\vec{i}$, $\vec{b} = a\vec{j}$, $\vec{c} = a\vec{k}$.

▶ Volume: a^3.

▶ Nearest neighbour separation[†]: $R_{nn} = a$

▶ Packing fraction[#]: $PF = 0.52$ ▸ packing

▶ e.g. Po

[†] $R_{nn}/2$ gives an estimate of the atomic radius

[#] Fraction of space filled by touching spheres.
— This is NOT the volume per atom.