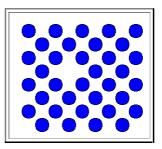
Vacancy

A vacancy is most simple crystal lattice defect imaginable. It is simply a missing atom in the base of a crystal; below a schematic drawing for an *fcc* crystal with one atom in the base.



Vacancies play an important role for the diffusion of atoms in crystals and thus for all of metal, semiconductor and ceramic technology. Atoms move by jumping into neighboring vacancies; this leads to a net flux of atoms and a (opposite) flux of vacancies.