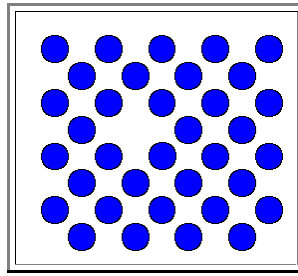


Vacancy

■ 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.