Crystal and Amorphous Structures
Bavarian Lattices
(known atomic orders in universe)
Atom layout in Primitive Cubic Lattice – occupied volume by atoms in a lattice
Body Centered Cubic Crystal and position of atoms in a unit cell
How many atoms in a BCC Unit Cell?
Face Centered Cubic Crystal and position of atoms in a unit cell
How many atoms in a FCC Unit Cell?
Imperfections in a crystal structure

Schematic representation of different point defects:
(1) vacancy;
(2) self-interstitial;
(3) interstitial impurity;
(4,5) substitutional impurities

The arrows show the local stresses introduced by the point defects.
Polycrystalline Structures (Grain Boundary)
Grain Boundary
Real Polycrystalline and plastically deformed Structures