

Metals and their Compounds

Lecture 2.2

Different forms of pure carbon

Fullerene - C_{60} is a *molecular* compound. Soluble in organic solvents such as benzene

Graphite is an *infinite 3-dimensional* compound. It has *different* properties (e.g. electrical conductivity) depending on direction of crystal.

Diamond is also an *infinite 3-dimensional* compound - a "supermolecule". Its hardness and high thermal conductivity arise because of 3-d arrangement of atoms.

All forms (allotropes) exist in *crystalline* state of matter.