CALCITE

$CaCO_3$ Calcium Carbonate

Calcite is a sedimentary mineral, formed by precipitation from solution rich in calcium carbonate. It is also formed from accumulations of marine shells, as in limestone. Calcareous rocks form 4% by weight of the Earths crust, and also cover 40% of the Earths surface. Calcite is often found as a gangue mineral in low temperature hydrothermal ore deposits of sulphide minerals. It is found in compact form as limestone. In saccarhoidal form as marble. In fibrous form as alabaster, and in concretionary form as stalactites. The crystalline structure is in the trigonal system and crystals can be in rhombohedral or scalenahedral form, or in a combination of both

Compact masses of calcite minerals are used in some building materials, for instance, cement, and building stone in the form of limestone or marble. In the chemical industry it is used in the manufacture of caustic soda, calcium chloride, carbon dioxide, etc. Calcite is the main constituent of bones, teeth, and nails, and supplements are available to boost calcium intake, supposedly to help reduce the onset, or effects of osteoporosis.

Calcite may be transformed by the presence of different minerals into other forms of calcite, some of which are,

1 *Iron - - - - - - - - - - - - Ferroan calcite*
2 *Manganese - - - - - - - Manganoan calcite*
3 *Magnesium - - - - - - Magnesium calcite*

CRYSTAL FORMS OF CALCITE

Scalenahedral

Rhombohedral

Combination of both

Bill Bagley