

## Carbonates

### Calcite

Calcite is a very common and widespread mineral that comes in a wide variety of forms and colours. It is best recognized by its relatively low hardness (3) and its reaction with weak acids and rhombohedral cleavage. It is fluorescent under UV light. High-grade optical calcite was used in World War II for gun sights. It is most common as massive material in limestones and marbles. Calcite and Aragonite are polymorphous to each other. Although Calcite and Aragonite contain the same chemical composition, they differ in crystal structure

### Siderite

Siderite is an ore of iron when found in sufficient volume to be economically recoverable. It was named in 1845 from the Greek word meaning "iron," in allusion to its composition. It is most often found in bedded sedimentary deposits with shales and coal beds and also as bog deposits.

### Magnesite

Discovered in 1808, this mineral was named in allusion to the composition, containing principally Magnesium. It is a member of the calcite mineral group and occurs primarily in igneous and sedimentary rocks.

### Malachite

Easily identified by its bright green color and its association with azurite, this mineral was named after the Greek mallows, in allusion to the green color of the leaves. It is the most common secondary mineral found in the oxidized zones of copper deposits but is only a minor ore of copper.

### Azurite

The name comes from the Persian word meaning "blue." It is a secondary copper mineral formed by the action of carbonated water acting on copper-containing minerals. There are >45 well-known forms of the mineral and is often associated with the mineral malachite.

### Dolomite

Dolomite was named in 1791 after the French mineralogist and geologist D. de Dolomieu (1750-1801). It is an important sedimentary and metamorphic mineral and is also found as a hydrothermal vein mineral. It is a major source of magnesium, particularly for agricultural and pharmaceutical applications.