

Minerals

Malachite

 $Cu_2(CO_3)(OH)_2$

Crystallography:

Monoclinic; 2/m. Rarely in distinct crystals; usually prismatic or fine acicular. Commonly in radiating fibers forming botryoidal or stalactitic masses. Also granular to earthy.

Physical Properties:

Cleavage: {201} perfect but rarely seen. Fracture subconchoidal, uneven; brittle.

Hardness: 3.5-4.0.

Specific Gravity: 3.9-4.03.

Luster: Adamantine to vitreous in crystals; silky, velvety, or dull in other varieties.

Color: Bright green; translucent to opaque.

Streak: Green.

Composition/Features:

Malachite is a copper carbonate hydroxide recognized by its bright green color and often botryoidal forms, and distinguished from other green copper minerals by its effervescence in HCl. Fusible at 3 giving a green flame.

Occurrence/Use:

A widespread secondary copper mineral found in oxidized portions of copper veins and often associated with azurite. It may be found as pseudomorphs after azurite or cuprite. A minor ore of copper; also used extensively as an ornamental and gem mineral.

