



# Minerals

## Chalcopyrite



### Crystallography:

Tetragonal;  $\bar{4}2m$ . Usually massive; crystals commonly tetrahedral in aspect with the disphenoid.

### Physical Properties:

**Cleavage:** Indistinct. Fracture uneven; brittle.

**Hardness:** 3.5-4.0.

**Specific Gravity:** 4.1-4.3.

**Luster:** Metallic.

**Color:** Brass-yellow; tarnishes to bronze or iridescent. Opaque.

**Streak:** Greenish-black.

### Composition/Features:

A copper-iron sulfide characterized by its brass yellow color and greenish-black streak. Differs from pyrite in being softer than steel and from gold by being brittle. Fuses at 2 to a magnetic globule. Decomposed by nitric acid.

### Occurrence/Use:

Like pyrite, also known as "fool's gold". Chalcopyrite is the most widely occurring copper mineral and an important ore of this metal. Most important economic deposits occur as hydrothermal veins and as replacements in sulfide ore bodies.