



Minerals

Copper

Cu

Crystallography:

Isometric; $4/m\bar{3}2/m$. Tetrahexahedron faces are common, as are the cube, dodecahedron, and octahedron. Crystals usually malformed and branching; also irregular masses and wire-like forms.

Physical Properties:

Cleavage: None; hackly fracture.

Hardness: 2.5-3.0.

Specific Gravity: 8.9; highly ductile and malleable.

Luster: Metallic.

Color: Copper red on fresh surface; tarnished dark with dull luster. Opaque.

Streak: Copper-red, shiny.

Composition/Features:

A Mica Group mineral with composition similar to phlogopite, but with a higher Native copper can be distinguished by its copper-red color on fresh surfaces, hackly fracture, specific gravity, and malleability. Fuses at 3 to a globule. Dissolves readily in nitric acid.

Occurrence/Use:

Most primary deposits of native copper are associated with basaltic lavas. Small amounts found in oxidized zones of other copper minerals. A minor ore of copper, second to copper sulfides. Primary use for electrical wire and in alloy production.