



Minerals

Fluorite

CaF₂

Crystallography:

Isometric; $4/m\bar{3}2/m$. Usually cubic, often as penetration twins twinned on {111}. Other forms rare, commonly in crystals or cleavable masses; also massive, granular.

Physical Properties:

Cleavage: {111} perfect; octahedral. Fracture conchoidal to splintery; brittle.

Hardness: 4.0.

Specific Gravity: 3.18.

Luster: Vitreous.

Color: Varies widely; commonly purple, light green, yellow, or bluish-green; also colorless, white, rose, blue, brown. Transparent to translucent.

Streak: White.

Composition/Features:

A common halide mineral characterized by its cubic crystals and octahedral cleavage, ability to be scratched by a knife, and vitreous luster. Fusible at 3 given a reddish flame (Ca).

Occurrence/Use:

Fluorite is a widely distributed mineral usually found in hydrothermal veins; common in dolomites and limestones. Used extensively in the chemical industry in the preparation of HCl, and as a flux in the making of steel.