

# **Minerals**

# **Topaz**

Al<sub>2</sub>SiO<sub>4</sub> (F,OH)<sub>2</sub>

## Crystallography:

Orthorhombic; 2/m2/m2/m. Crystals commonly prismatic with vertical prism faces often striated; also in crystalline masses or granular.

#### **Physical Properties:**

Cleavage: {001} perfect. Fracture subconchoidal to uneven; brittle.

Hardness: 8.0.

Specific Gravity: 3.4-3.6.

Luster: Vitreous.

Color: Usually colorless or white; also yellow, pink, pale bluish, or greenish.

Transparent to subtranslucent.

Streak: White.

### Composition/Features:

Topaz is an aluminum-silicate-fluoride-hydroxide characterized by its hardness, crystal habit, basal cleavage, and high specific gravity. Infusible and insoluble.

#### Occurrence/Use:

Topaz is typically formed by fluorine-bearing vapors given off during the last stages of crystallization in siliceous igneous rocks. Found in pegmatites and in cavities in rhyolite lavas and granites. Also occurs in some areas as rolled stream pebbles. Transparent varieties are widely faceted as gemstones.

