



Minerals

Quartz (variety Rock Crystal)

SiO_2

Crystallography:

Hexagonal \bar{R} ; 32 (low-quartz). Hexagonal; 622 (high quartz). Crystals commonly prismatic, with prism faces horizontally striated and usually terminated by positive and negative rhombohedrons (giving the appearance of a hexagonal dipyrmaid).

Physical Properties:

Cleavage: Generally none; occasional indistinct rhombohedral parting. Fracture conchoidal; brittle.

Hardness: 7.0.

Specific Gravity: 2.65.

Luster: Vitreous.

Color: Clear, colorless, transparent.

Streak: White.

Composition/Features:

Most nearly a pure chemical compound of silicon and oxygen with constant physical properties. Piezoelectric and pyroelectric. Characterized by its colorless nature, glassy luster, conchoidal fracture, hardness and crystal form. Infusible. Insoluble except in hydrofluoric acid.

Occurrence/Use:

Transparent, colorless quartz; frequently in distinct crystals. Valued as an ornamental stone and used commercially to manufacture lenses and prisms in optical instruments and quartz oscillators in watches and radio equipment.