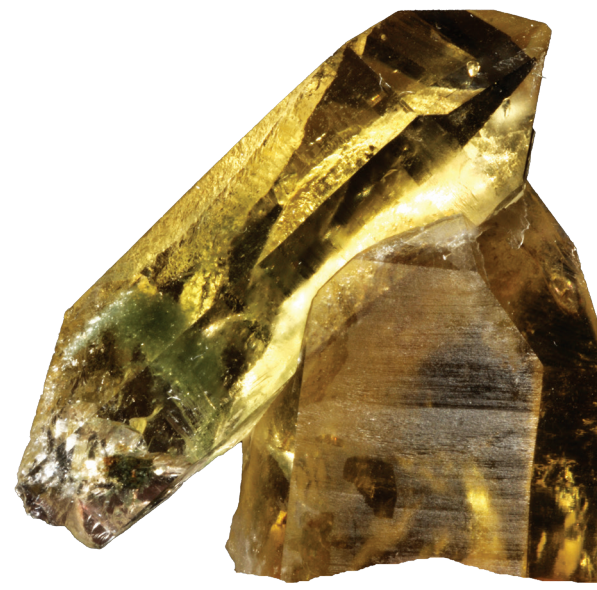


A Beautiful World

Beauty In the Rocks

Crystals are natural solids in which the atoms are arranged in an orderly structure, which determines the shape of the crystal. Variation in color is often due to impurities. Crystals may be valuable because of their beauty, their use in industry, or as a source of chemicals. They do not have healing or other magical properties as some try to claim. The fact some of them are rare adds to their interest and value.

Crystals can be classified by their chemistry, color, electrical conductivity, shape, or other property. The crystals in this display are arranged by crystal system, or shape. There are seven crystal systems, which vary by the angles formed by the sides of the crystals.



Citrine, silicon dioxide with iron (ferric) impurities

Image: Parent Géry, Public Domain



Malachite with calcite and zinc-bearing dolomite crystals

Image: Didier Descouens, CC by SA 3.0



Gypsum crystals

Image: Ivar Leidus, CC by SA 4.0



Quartz, silicon dioxide

Image: Tuxyso, CC by SA 4.0



Rhodonite with quartz

Image: CarlesMillan, CC by SA 4.0



Amethyst, silicon dioxide with iron impurities

Image: W.carter, CC by SA 4.0



Emerald (Hexagonal)

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Chalcopyrite (Tetragonal)

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Fluorite (Cubic)

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Prehnite (Orthorhombic)

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Some crystals change colors when under ultraviolet (UV) light. The atoms of the mineral absorb energy from the UV light and then re-emit it as a different color of light. This is known as fluorescence, and is a feature of some other materials. Colors vary with the kind of crystal or other material.

The beauty of crystals is due to their symmetry, color, and luster. These features are detected by the eye and analyzed in the brain, where they may be interpreted as beautiful. Thus, beauty is a response of the mind, and is not an independent quality of the rocks themselves.