

## What causes the cat's-eye effect in chrysoberyl?

The cat's-eye effect is caused by the reflection of light off of minute, parallel, needle-like rutile crystals or hollow tubes within the stone. Cat's eye inclusions are aligned parallel to the crystallographic axis and the stones are always cut as cabochons with the fibrous needle-like inclusions running across the narrow part of the stone as this is the best way to display the eye. The most valuable type of cat's eyes are the alexandrite cat's eyes where the stone displays both a cat's eye and a strong color change.

Other kinds of stones like tourmaline, quartz (tiger eye), sillimanite, scapolite, apatite and beryl may also display chatoyancy but these stones are referred to as tourmaline cat's eyes or quartz cat's eyes etc., and only chrysoberyl is referred to as "cat's eye" with no other designation.

The cat's eye phenomenon can also be created artificially and several forms of glass cat's eyes are available on the market. The eyes are all very sharp and centered with uniform color. They are easy to distinguish from natural cat's eyes by their uniformity and lower specific gravity as well as their perfect chatoyancy. Magnification of these lab created stones will reveal a honey-comb pattern somewhere near the girdle of the stone.

See Alexandrite Tzarstone collectors guide, What causes the cat's-eye effect in chrysoberyl?, <http://www.alexandrite.net/viewpage.html?id=GG-0124> (The cat's-eye effect is caused by the reflection of light off of minute, parallel, needle-like rutile crystals or hollow tubes within the stone. Cat's eye inclusions are aligned parallel to the crystallographic axis and the stones are always cut as cabochons with the fibrous needle-like inclusions running across the narrow part of the stone as this is the best way to display the eye. The most valuable type of cat's eyes are the alexandrite cat's eyes where the stone displays both a cat's eye and a strong color change.) (as of ).