

## Citrine Quartz

### Fiery orange or sunny yellow cousin of amethyst

When I was young it seemed like yellow topaz and smoky topaz were everywhere - nearly as common as agates! Gradually, as I became more familiar with gemology, it became apparent that almost none of those gemstones were actually topaz. Instead, they were the yellow and brown versions of quartz, known respectively as citrine and smoky quartz. Yellow topaz has traditionally been the birthstone for November so when jewelers began substituting yellow citrine, the term *citrine topaz* was coined. Not very original, but effective. Unfortunately, that made it difficult for citrine to develop a following of its own since it was always being sold as a substitute for topaz.

Quartz is one of the most common minerals on earth with lots of well-known varieties like amethyst, rock crystal, smoky quartz and all of the various agates and jaspers. When quartz contains iron impurities, the color of the quartz will be purple, yellow, or green depending on the configuration of the iron. While there is some citrine that occurs naturally, the vast majority of material on the market today is created by heating amethyst to about 900 degrees Fahrenheit. It is theoretically possible to reverse the effect by irradiating citrine to create amethyst, but it is never done in practice since natural amethyst is more common than citrine. Quartz has a hardness of seven and no cleavage planes so it is a reasonably durable stone, suitable for rings and all other forms of jewelry.

**4.65 carat citrine and astrophyllite in yellow gold with 0.15 ctw diamonds \$2290**

**3.69 carat fire orange citrine in yellow gold with 0.47ctw diamonds \$1980**

**Citrine and PMC silver earrings with 22KT gold overlay \$475**

**22KT and sterling bimetal accented with citrine rondells \$599**

It is difficult to say how big a role citrine has played in history since most historical texts refer to yellow gemstones which could be interpreted to mean citrine or topaz, yellow beryl or even greenish-yellow stones like chrysoberyl. What we do know is that the book of Exodus

refers to one of the stones in Aaron's breastplate as *chrysolitus* or golden stone. Given the relative abundance of the different options, it is likely that Moses is referring to citrine, but he could also be referring to topaz or beryl. Citrine was also used as a decorative gem in ancient Greece, around 200-300 BC.

More recently, citrine rose to prominence in Europe in the 18th century as the technique of heating amethyst to obtain citrine was discovered, and as colored gemstones of all types became more sought after. In the 1930s, agate cutters from Idar-Oberstein, Germany, emigrated to South America and began to send large quantities of amethyst, citrine and agates home to be cut and polished, creating a steady supply of high quality gems.

Today, Brazil and Uruguay are still the top producers of amethyst and citrine, but Madagascar, Bolivia and several other countries throughout the world contribute to the supply. It is truly remarkable how much amethyst and citrine has been produced over the last two decades from the area around Artigas, Uruguay. Located near the Brazilian border, this 62 square mile area produces nearly 22,000 pounds per month - an astounding quantity of gemstones. Most of this production is in the form of amethyst geodes, but some of it is heated to create citrine.

Citrine comes in a variety of yellow hues from smoky colored to bright yellow to bright orange. Any of these can be more or less valuable depending on the intensity of the color and the brilliance of the fire. Unlike rubies and sapphires, large high quality citrine is relatively common so citrine can be a good choice when size is important!

When amethyst and citrine are found in the same gemstone, the term *ametrine* is used. There is one mine in Bolivia that produces this material naturally, but it is also reported that gem-treaters have had some success partially heating amethyst to create the mix.

