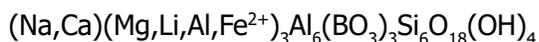# Chrome Tourmaline

This tourmaline has a little something extra!

Some gems have very simple chemical formulas. The most well-known is probably diamond which most people know is simply carbon or C. Another well-known family of gems that is not very complex are ruby or sapphires, both of which are the mineral corundum. These gems are simple compounds of aluminum and oxygen molecules and are known as aluminum oxides written as Al_2O_3. Compare those fairly straightforward formulas to the complicated gemstone group of tourmalines which have a chemical formula that looks like this –

$$(Na,Ca)(Mg,Li,Al,Fe^{2+})_3Al_6(BO_3)_3Si_6O_{18}(OH)_4$$

This complexity results in several varieties of tourmaline, the most common of which are schorl, elbaite and dravite. Of these, elbaite provides most of the gemstones used in jewelry. Dravite is normally too opaque to be used in jewelry and when transparent it's most commonly brown. But when trace amounts of chromium finds its way into the crystal lattice at the molecular level, the result is an intense forest green – much livelier than typical green tourmaline. These vivid tourmalines are known in the trade as *chrome tourmaline* and command a much higher price than most green tourmaline. They have only been recognized as unique and available since the 1960s when deposits were discovered in Tanzania, which is also the major source for tsavorite garnet. Unfortunately stones of more than one carat are extremely rare. To this day, the majority of production is still coming from Tanzania although some production has been reported from Madagascar. Chromium is the trace element that also supplies the rich green colors found in Colombian emeralds, tsavorite garnets and imperial jadeite. Its amazing how much difference small amounts of trace elements at the molecular level can affect the color and appearance of minerals! Chrome tourmaline is 7-7.5 in hardness making it suitable for most jewelry. Lower cost makes chrome tourmaline a reasonable substitute for emerald.

It is fun to compare the variety of stones available in the tourmaline group and see how different factors affect the price. Since they are all the same mineral, pricing is set by rarity and color. The discussion of color and how to describe it is extremely complex and can easily be the subject of an entire course. Suffice it to say that the most basic components are hue, tone and saturation. Hue refers to the position on a color wheel like red, yellow, or green. Tone refers to how dark or light the color is, and saturation refers to how intense the color is. In tourmaline it is very common to have gems that are dark in tone and appear muddy so a chrome tourmaline with its highly saturated green color and medium tone stand out as exceptional! Other highly valued colors in tourmaline are the neon blue-greens of Paraiba and the intense reds of rubellite.

1.34ct chrome tourmaline with 0.24ctw VS diamonds and pearls in 18KT yellow/ 14KT green gold pendant $2400

2.41ctw chrome tourmaline with 0.50ctw VS diamonds in 18KT yellow/ 14KT green gold earrings $3600

2.47ctw chrome tourmaline with 0.43ctw diamonds in yellow gold earrings $2700

1.15ct chrome tourmaline with black jade and diamonds in 18KT white gold ring $1700

Veberod Gem Gallery
Christmas Party

Live music!

Enjoy shopping and creating jewelry as the Travis Anderson jazz trio livens things up.
11AM-4PM   December 8.

Saturday, December 8 from 10-5, come make custom pendants and earrings as gifts using our tools and with our help! Free coffee and hors d'oeuvres supplied by our friends at Pickychilli catering this year!

All ages welcome with supervision.
No experience necessary.
Invite your friends and family - we get lots of positive feedback every year from those new to the store!

Support Heifer International again this year!

For every piece of jewelry purchased out of the case December 1-15 we will donate 20 percent of the sale price to Heifer International. Qualifying purchases include a certificate explaining how the gift kept on giving.

NEW!
Last Minute Gifts Class

A perfect activity for families with older children. Sign up for one of 2 three-hour sessions on Saturday, December 22 to make a piece of metal jewelry. Options include stamping, riveting, fusing and wire linking to make earrings, pendants or bracelet. No experience required, assistance provided on site! Cost $20 plus materials.

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