

IOLITE;

THE UNDERAPPRECIATED VIOLET BEAUTY...

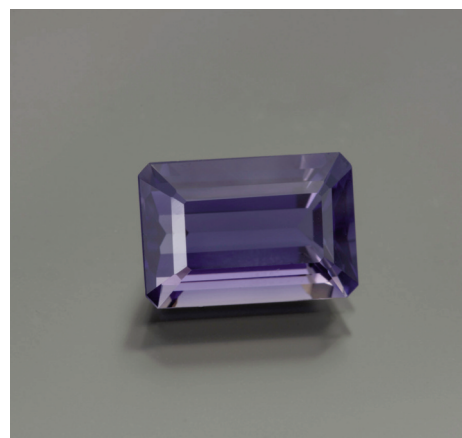
The eye visible purple-violet pleochroism of iolite is often one of the first gems used to introduce gemology to beginners because of its almost magic like optical feature. Once observed, it expands a gemology student's perception of the subject. Despite its important role in education, iolite has never gained a great place in the gem market. It had been known to ancients as we see some rare examples in ancient jewelry, yet was never recorded in Ancient Greek or Roman manuscripts. Perhaps it was confused with other similar gems such as amethyst. This beautiful underrated gemstone has also been named as water sapphire, Spanish lazulite, and dichroite to draw the attention of potential buyers. Water sapphire was particularly popular in the 19th and 20th century to assign a much higher value to it. Another myth about iolite being the "Viking Stone" used for navigation has been recently debunked by various researchers.

Iolite is the gemstone name of the purple-violet mineral cordierite. Colorless gem quality cordierite has been reported but not commonly encountered. Although known for many centuries, cordierite was first studied in-depth by the famous French mineralogist Pierre Louis Antoine Cordier and named after him in the 19th century. Interestingly, Pierre Cordier himself named it iolite by combining "ios=violet" and "lithos=stone" in Greek. The type locality of cordierite is Bavaria, Germany. Today, most gem quality material is sourced from deposits in Brazil, USA, Canada, Greenland, Finland, Norway, Russia, India, Myanmar, Sri Lanka, Madagascar, Tanzania, and Kenya. African sources are fairly recent. On a side note, when tanzanite was first discovered, it was suspected to be iolite due to its strong trichroism of similar colors but quickly was separated and identified as zoisite. Despite its availability, high quality transparent and vividly colored iolite is very



1.81ct iolite from India.

Courtesy of Pala International. Photo by Mia Dixon.



7.77ct iolite.

Courtesy of Pala International. Photo by Mia Dixon.

rare. Fine grade material tends to be under 3 ct and rarely comes over 5 to 10 ct sizes.

Iolite has a hardness of 7 to 7.5 in Mohs' scale with good cleavage. Although brittle, it is used commonly in commercial jewelry due to its low cost. The most devaluing factor of iolite is its gray undertone, sometimes making it too dark. Commercial grade stones are generally cut in cabochon or fashioned into beads. Even though it may be confused with amethyst based on 1.54 to 1.57 RI, it is biaxial and strongly trichroic. The same properties would easily set it apart from sapphire and tanzanite. There is phenomenal iolite of two types. One is known as "blood-



Bloodshot iolite carving.
Courtesy of Yeman. Photo by Orasa Weldon.

shot iolite" in which the red hematite platelets creates aventurescence and the rarer one is the cat's eye. Cat's eye effect may be caused by fibrous inclusions or metallic needles, depending on locality.

In a market where untreated stones are revered, iolite doesn't get the attention it deserves. No major type of treatment for iolite is reported. It is not stable under heat, and radiation effects are

unknown. However, one must always remember that any gem with a surface reaching fracture is a good candidate for fracture filling and iolite would not be immune to it. ♦

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