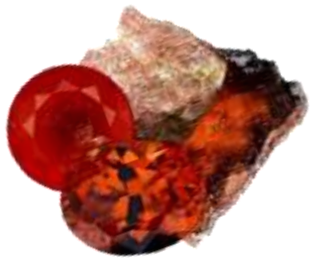
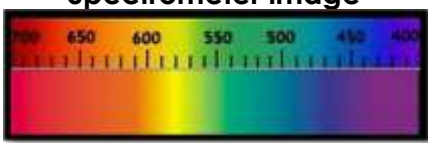
Warning : this one version was _ completed with Google Translate, for sure contains errors or inaccuracies .

Technical data sheet – general: Triplet

Gemma – names	**Italian** : Triplite **English** : Triplite **French** : Triplite **Spanish** : Triplita **Portuguese** : Triplita **Thai** : ไทรไพลิท (Thairpailit)	**German** : Triplit **Arabic** : تريبليت (Triblyt) **Russian** : Триплит (Triplit) **Mandarin** :三晶石 (Sān jīng shí) **Swahili** : Triplet **Hindi** : ट्रैप्लाइट (Traplaait)	**photo** 
Colors (GIA)	Triplite is a mineral known for its variety of colors, which can include: **chestnut to reddish-brown, flesh red, salmon pink, pink, orange, brown and black.**		
Cause of Color	Triplite is generally red, pink or brown in color due to the presence of **manganese ions (Mn^{2+})** in its crystalline structure. These manganese ions **replace iron ions (Fe^{2+})** in its structure, creating a characteristic coloration. In particular, the exact mechanism of the coloration can be attributed to the presence of Mn^{2+} and its interaction with other elements in the triplite crystal structure. The concentration and arrangement of these ions influence the specific color which can vary from pale pink to deep brown. The exact concentrations of manganese and other elements can vary from sample to sample, which can lead to a range of color shades in the triplite. The presence of other elements, such as iron, aluminum, and zinc, can also contribute to the overall coloration of the triplite. **Allochromatic Gem**		
Classification	**Mineral class** Phosphates	**Species** – **Group (mineral)** Triplet - //	**Variety** -
Optical properties	**Specific Gravity:** 3.44 - 3.90 **Municipality:** 3.67	**RI:** 1,643–1,703 **Polariscope:** DR or AGG : **Birefringence:** 0.030 to 0.034	**Character optical** Biaxial positive **Pleochroism** **Dichroic (or trichroic):** from yellow-brown to reddish-brown
	Luster (luster) – *luster of the fracture* Vitreous , resinous, fatty - *vitreous*		**Dispersion (fire)** High
Light	**Fluorescence** **SWUV (254 nm)** : Inert **LWUV (365nm)** : Inert		**Phosphorescence** Absent
Form	**Crystalline dress** Massive – Granular **Melting point:** NA	**Phenomenal optical effects** NO	**Crystalline system** Monoclinic Prismatic **Crystal class**
Chemical formula	Manganese iron magnesium calcium phosphate fluoride hydroxide **$(Mn,Fe)_2PO_4(F,OH)_o$** **$(Mn^{2+}, Fe^{2+}, Mg,Ca)_2(PO_4)(F,OH)$**		**Spectrometer image**  Not available
Fracture	**Flaking** 3 directions (good, moderate, poor)	**Breakup- *Parting*** Not known.	**Fracture** Irregular-subconchoidal
Durability	**Hardness (Mohs) - *Absolute*** 5.0-5.5, ; *48-60*	**Toughness** Fragile	**Stability** (heat, light, chemicals) Poor (dissolves into acid)
Clarity - characteristics	As a Type III gem, this stone is often found to be characterized by numerous inclusions, fractures and internal features. Among the many possible ones, the following are known: Negative crystals or solid crystals such as quartz or rhodochrosite.		
	Type III Typically included	**Transparency (commercial) - diaphanity** From translucent to opaque	
Deposits - types of rocks	It forms in phosphate-rich **granitic pegmatites** and high-temperature hydrothermal veins. Isostructural with: **Sarkinite, Triploidite, Wagnerite, Wolfeite, Zwieselite. It is part of the**		

	triplite group which shows itself as a Triplite-Zwieselite series. The manganese analogue of Zwieselite. **Geological age** : NA
Characteristics of rough stones	The triplite occurs in irregular masses, which **can reach 10 centimeters in diameter** , varying in color from flesh red to dark brownish red. The cleavage is not pronounced and the material **resembles solid garnet** . Intimately intertwined with the triplite **are muscovite and fine-grained deep blue tourmaline** , the latter surrounding the triplite in a crust and penetrating it along fissures and walls. appearing as if derived from phosphate alteration. Much of the triplite is granular and friable due to mechanical disintegration.
Main depots	**United States** (California, Nevada, Arizona, Colorado, South Dakota, Virginia, Connecticut and Maine). the Shigar Valley (**Pakistan**), **China** , Bavaria (**Germany**), Kimito (**Finland**) and Karibib (**Namibia). Other deposits include** Brazil, France, Mozambique, Argentina, Bolivia, Czech Republic, Romania, Zimbabwe, Poland, Mongolia, South Africa, Madagascar, Kazakhstan, Korea, Australia, Canada, Portugal, Japan, Norway, Russia, United Kingdom, Spain and Uzbekistan .
Year of discovery	**1813:** The triplite was first described in 1813 in Chanteloube, Limousin, France.
History	Antiquity: Use of ancient Triplite for ornamental and ritual purposes, of unknown but ancient era. **19th century** : The history of the Triplite dates back to the 19th century when it was first discovered in Sweden. Its metaphysical qualities and beautiful appearance have made it a popular gemstone. **1841** : Coining of the name "Triplite" by **Johann Friedrich August Breithaupt** . In **1929** , R. M. Wilke sent to the Department of Mineralogy at Harvard University a series of mineral samples collected near the Bagdad Copper Mine, about 25 miles west of Hillside, Arizona. In **1931** the writer visited the location and several others in the vicinity, and made another complete collection. Lack of knowledge about this mineral led a Denver gem and mineral dealer named Morgan Sonsthagen to notice a large, rough rock holding down a stack of papers at the Tucson Gem and Mineral Show in 2006 **.** After being cut in Bangkok, the rough rock had yielded a 21.29-carat teardrop-shaped gem, an 11.05-carat round-cut gem, and several smaller stones. **Name :** The term "triplite" comes from the Ancient Greek "triplos" (τρίπλος), meaning "triple" or "triple". This name could refer to the colors in which it appears or to the 3 flaking directions. **Other trade names:** Retinbaryte, Phosphate of iron and manganese, Triplit, Eisenapatit, Manganèse phosphaté, Phosphormangan and Manganèse Phosphaté Ferrifère. **Variety** : /
Attributed properties	Majestic in its connection with the chakras, the Triplet unlocks the secrets of the **Heart Chakra** . Here, it weaves the fabric of **emotional healing and opens doors to deeper connections** with ourselves and others. At the same time, Triplelite also embraces the Solar Plexus Chakra, strengthening self-confidence and personal empowerment. Its roots lie **in the element of Fire** , infusing it with passionate and transformative energy. In the mysterious world of Feng Shui, placing the Triplite in the southern area of a home or workspace can ignite creativity and fuel motivation. Mars, with its dominance, transmits an aura of **assertiveness and energy to the Triplite** . Like a fiery aura, this crystal stands with courage and an irresistible drive to action. Looking to the world of gods and goddesses, the Triplite is found under the aegis of powerful deities such as **Agni, the Hindu god of fire** , **and Ra, the Egyptian god of the sun** . These deities infuse the Triplite with fiery energies, igniting an inner strength and unparalleled vitality. Numerologically, the Triplet beats to the rhythm **of the number 1** , a symbol of new beginnings and **independence** . With this numerical melody, it opens the doors to change and inspires new **adventures without fear** . In this world of mystery and magic, the Triplite dances to the rhythm of the stars, offering an enchanting journey towards transformation and enlightenment. It is also believed that under the full moon, Triplite can **reveal buried wisdom** and allow the wearer to **interact with celestial creatures** . **Planet:** Mars **Month:** NA **Zodiac sign:** Aries, Leo or Sagittarius **Chakras:** Heart

Treatments	Triplite, being a relatively rare gem, is not commonly subject to treatment or enhancement processes. However, it is important to note that, like many gemstones, it may be subject to treatment if it were to be marketed as a gem. Common treatments that might be applied include heating to improve clarity or color appearance.		
Synthetic counterpart	At present, **there is no commonly available synthetic counterpart** to triplite. Triplite is generally considered a natural gemstone and has not been widely synthesized in a laboratory.		
May be confused with	Due to its similar name, it is confused with **triphlyte** , a brown-green, light green-grey, blue-gray mineral; which appears colorless to pale yellow under transmitted light. The gem is too rare with defined optical and physical characteristics to be confused with other gems.		
Indicative gemological tests	Appearance, regration index measurement, birefringence, and low hardness separate it from most other gems. However, all gemological tests must always be completed to ascertain the species and its characteristics.		
Value (2021)	**High :** 200+ $/ct **3 carats+**	**Medium: $** 50 /ct **1-3 carats**	**Low:** $10/ct **under the carat**
Typical cut	Due to the 3 directions of cleavage and the relatively low hardness, triplite gemstones are very difficult to facet. A typical cut of the few faceted specimens is the oval one.		
Famous stones	The quality triplite is so rare that the Smithsonian National Museum of National History has only one example in its fix, made as a gift to the Museum in 2008.		
Record stones	The largest triplite ever found was a 308-carat stone from Burma.		