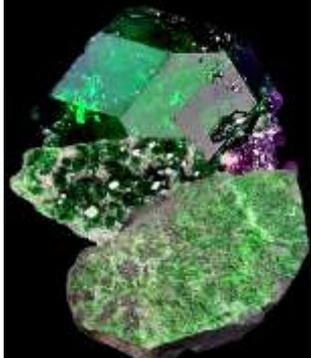
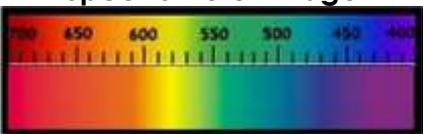


**Warning: this version has been completed with Google Translate, it certainly contains errors or inaccuracies.**

## Technical sheet - general: Uvarovite

<b>Gemma - names</b>	(Italian - Uvarovite) (English - Uvarovite) (French - Uvarovite) (Spanish - Uvarovita) (Portuguese - uvavorite) (Thai - uvarovite)	(German - Uwarovit) (Arabic - وفاروفيت - uwfarufit) (Russian - Уваровит Uvarovit) (Mandarin - 金刚砂 - Jīngāngshā ) (Swahili - Uvarovite) (Hindi - यूवैरोवाइट yoovairovait)	<b>photo</b> 
<b>Colors (GIA)</b>	The uvarovite has a color ranging from <b>medium green</b> to <b>dark green / black</b> and is best known for its <b>granular, druze masses</b> that reveal, under magnification, well-formed dodecahedral or trapezoidal crystals. It is the rarest of all garnets and its crystals are commonly too small to cut. It could rival emerald as a popular gem for its beautiful color.		
<b>Cause of Color</b>	The attractive bright green color of uvarovite is due to the presence of <b>chromium</b> (Cr <sup>3+</sup> ). The crystals are very fragile, with subconchoidal to irregular fracture. It is classified in the group of the <b>ugrandites</b> together with the Andradite and gross garnets, which carry calcium. Together with grossularite (calcium-aluminum) and andradite (calcium-iron), it forms the series of <i>Ugrandite garnets</i> . These three have similar structure and crystalline shape, but have different chemical proportions. <b>Idiochromatic Gem</b>		
<b>Classification</b>	<b>Mineral class</b> Nesosilicates	<b>Species - Group (mineral)</b> Uvarovite - Garnets	<b>Variety</b> -
<b>Optical properties</b>	<b>Specific Gravity:</b> 3.40 - 3.81 <small>Municipality: 3.59</small>	<b>RE:</b> 1860 (1,780 to 1,870) <b>Polariscope</b> :SR - ADR or AGG <b>Double refraction:</b> /	<b>Character optical</b> Isotropic
	<b>Luster (luster) - luster of the fracture</b> Subadamantino - vitreous - vitreous		<b>Pleochroism</b> / <b>Dispersion (fire)</b> From 0.014 to 0.021
<b>Light</b>	<b>Fluorescence</b> SWUV : red or greenish LWUV : red		<b>Phosphorescence</b> /
<b>Form</b>	<b>Crystalline dress</b> It comes in euhedral, dodecahedral or trapezoidal crystals, in combination with cubic crystals. Fine or granular, compact or massive. <b>Melting point:</b> about 1410 ° C	<b>Phenomenal optical effects</b> Nobody	<b>Crystalline system</b> Cubic-isotmetric hexoctahedral <b>Crystal class</b>
<b>Chemical formula</b>	Calcium and chromium silicate  <b>Ca<sub>3</sub>Cr<sub>2</sub>(SiO<sub>4</sub>)<sub>3</sub></b>		<b>Spectrometer image</b>  <small>Not diagnostic</small>
<b>Fracture</b>	<b>Flaking</b> Indistinct	<b>Breaking- Parting</b> Indistinct	<b>Fracture</b> Irregular to subconchoidal
<b>Durability</b>	<b>Hardness (Mohs) - Absolute</b> 6.5-7; 86 - 100	<b>Toughness</b> Fragile	<b>Stability</b> (heat, light, chemicals) Good
<b>Clarity - characteristics</b>	<b>Typical inclusions:</b> Given the tiny size of the crystals, they are usually not indicative. Crystalline inclusions may sometimes be noted.		
	<b>Type II</b> Normally included	<b>Transparency (commercial) - transparency</b> Transparent to translucent	
<b>Deposits - types of rocks</b>	The uvarovite is formed through metamorphism processes from impure siliceous limestones and from rocks that contain chromium. Often covers cavities or rock cracks, It can also be the result of a hydrothermal alteration of serpentinite containing chromite, in metamorphosed limestone rocks and <b>skarn</b> (metamorphic rocks consisting of calcium, magnesium and iron silicates) created by the reaction of metamorphic		

	<p>processes related to dolomite and chromite. It is also formed in igneous rocks with a high content of olivine, pyroxenes, etc., and in other chromogenic rocks.</p> <p>The uvarovite crystals found in the Outokumpu district (Finland) are part of a wide range of chromium-rich silicate phases which are found in association with volcanic deposits of copper-cobalt-zinc sulfide and which are known to have a of unusually high chromium. U varovite is typically associated directly with chromite spinel.</p> <p><b>Geological age</b> : 500 million - 1 billion years ago (East Africa)</p>
<b>Characteristics of rough stones</b>	<p>It appears as well-formed fine-sized crystals, often lamellar, that is, with the appearance of thin sheets that produce a lamellar structure. The fine pieces have a shimmering, bright green surface with small crystals that cover the rock in a thick, homogeneous and uniform way. Large crystals are significantly darker.</p>
<b>Main deposits</b>	<p>Uvarovite is found in serpentine rocks. The best transparent crystals are found in the Urals in Russia.</p> <p><b>Australia</b> (New Wales), <b>Botswana</b> (Vumba shale belt), <b>China</b> (Tibet) <b>Canada</b> (Nelson, British Columbia), <b>Cuba</b> (east), <b>Finland</b> (Outokumpu and Pitkaranta), <b>Japan, Italy</b> (Val Malenco, Piedmont and San Marcello, Val d'Aosta), <b>Norway</b> (Roros), <b>Russia</b> (Biserk and Sarany), <b>Spain</b> (Venasque) <b>South Africa</b> ( Bushveld) <b>Taiwan, Turkey</b> (Erzerum, Kip Daglari), <b>USA</b> (New Mexico, Pennsylvania, Arizona, and California).</p>
<b>Year of discovery</b>	<p><b>1832:</b> The u varovite was discovered in 1832 by <b>Germain Henri Hess</b> who named it in honor of Count <b>Sergei Semenovitch Uvarov ( 1765–1855 )</b>, a Russian statesman, mineral collector and president of the Academy of Sciences from 1818 to 1855 Hess later also had a mineral bearing his name: <i>silver telluride</i> was named hessite as a result of his important analytical work on it.</p>
<b>History</b>	<p>Already in the eighteenth century, some uvarovite crystals were extracted from Russian deposits in the Urals for the production of jewels for the imperial court. Tsarina <b>Catherine II "the Great"</b> (1729 - 1796) loved green precious stones, such as emeralds and some garnets, such as Uvarovite and Demantoide. Both were not yet known by these names at that time.</p> <p>In the <b>second half of the 19th century</b> , the son of Sergei Semenovitch Uvarov, <b>Aleksey</b> was the co-founder of the Russian Archaeological Society and the Moscow State Historical Museum.</p> <p>In <b>2018</b> , 6 samples of <b>birefringent uvarovite</b> were studied with various experimental techniques and the results were presented.It was concluded that the partial ordering of long-range Cr<sup>3+</sup> / Al at site Y was the most important non-cubic feature.</p> <p><b>Name</b> : It was named in honor of Count Sergey S. Uvarov, a Russian statesman.</p> <p><b>Other trade names:</b> Chrome garnet, Chromium garnet, Ouvarovite, Uvarovite garnet, chromgranat, hanléite , idrouvarovite, ouwarovite, owarovite, trautwinitite, trautweinite,</p> <p><b>Variety</b> : ugrandite (uvarovite-grossularia-andradite)</p>
<b>Property attributed</b>	<p>Garnets (of all kinds) are often particularly fashionable in times of crisis. After the first and second world wars, for example, their popularity increased significantly . Uvarovite is said to promote <b>energy and enthusiasm</b> , helping to carry out one's ideas and projects with vigor, even in hard times. UVarovite is also said to help find clarity during meditation, while not allowing for feelings of loneliness, which encourages individuality and at the same time connects <b>to the universal nature of the soul</b> .</p> <p>Some crystal therapists use uvarovite for the treatment of <b>seasonal allergies</b> , impotence and inflammation, for the enhancement of heart function and blood circulation. It fills the open wounds of the heart that are held so closely and tend to hold back from full potential.</p> <p>Other purported emotional benefits include promoting emotional resilience, self-confidence, and fulfillment.</p> <p><b>Planet:</b> Mars</p> <p><b>Month:</b> NA <b>Zodiac sign:</b> Taurus, Aquarius</p> <p><b>Chakra:</b> heart</p>
<b>Treatments</b>	<p>There are no standard treatments for this gem.</p>
<b>Synthetic counterpart</b>	<p>a garnet, through dominant hydroxyl, analogue of uvarovite was carried out around the middle of the 1980s. Its use in the world of precious stones has not been recorded, given the low frequency of the stone in the market.</p>
<b>It can be confused with</b>	<p>The tiny size of the crystals makes it both a difficult gem and a stone that rarely comes, or needs to be imitated. Distinctive gemological tests are generally applied to stones of a size that can permit their handling.</p>

	<p><b>Green Andradite</b> (nicknamed "Iranian uvarovite" (Separation by: aspect, width of crystals) , <b>Demantoid</b> ( Separation by: size of crystals, aspect, spectrum (of the demantoid, larger), <b>Natural Zircon</b> (Separation by: optical character, doubling , spectrum), <b>Green Tourmaline</b> (Separation by: optical character, pleochroism, RI, SG), <b>CZ</b> (Separation by: sheen, SG), <b>YAG</b> (Separation by: SG), <b>GGG</b> (Separation by: SG), etc. <i>Luoshiliushi</i> is a Chinese term for green uvarovite which is sometimes used as an imitation of jade.</p>		
<b>Indicative gemological tests</b>	Generally the appearance of the stone is sufficient to identify it successfully, Standard tests (RI, chelsea filter) help to complete the categorization.		
<b>Value (2021)</b>	<p><b>High</b> : 10 \$ / ct <b>3 carat +</b></p>	<p><b>Medium:</b> 4-5 \$ / ct <b>Well formed flat pieces</b></p>	<p><b>Low:</b> 0.5-1 \$ / ct <b>Small druze</b></p>
	Pendants typically cost \$ 20- \$ 150 per piece, with most of them falling around a cost of \$ 50-70. The rings are more expensive, costing between \$ 50 and \$ 600.		
<b>Typical cut</b>	uvarovite is difficult to find anywhere, especially in sizes above 0.25 carats and is rarely faceted. It is normally found in pendants, necklaces and earrings in its natural form		
<b>Famous stones</b>	There are no known and worthy pieces in high jewelry. A ring inspired by the tale of "Hansel and Gretel" in 925 silver with natural uvarovite garnet is part of a collection exhibited in Barcelona (Spain). A noteworthy example appeared in 2001, at the annual Gem & Mineral Show in Tucson, Arizona, USA. The display was a sculpted figure and featured typically Russian gems.		
<b>Record stones</b>	A sample of uvarovite is exhibited at the Smithsonian Museum of Natural History. The specimen measures approximately 12x20 cm and comes from the chromite deposit of Saranovskoe, Nizhniy Tagil, Urals, Russia. There is no other news of specimens of particular size or value. The largest known faceted uvarovite is less than 0.5 carat, while the largest crystals reach about 2.5cm,		