



**COLORED STONE  
REPORT**

**ELECTRONIC  
COPY**



June 4, 2021

IGI Report Number	478197573
Species	NATURAL BERYL
Variety	EMERALD
Shape and Cutting Style	ROUND MIXED CUT
Weight	1.03 CARAT
Measurements	6.08 - 5.83 x 4.93 mm
Color and Transparency	DEEP BLUISH GREEN, TRANSPARENT
Characteristics	GOOD COLOR QUALITY NATURAL INCLUSION(S) PATTERN

Comments:  
Indications of moderate clarity enhancement with Oil

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**Species & Variety**

Gems may be classified in different species, according to their basic chemical composition and crystal structure; within a certain species, small differences in composition may result in different colors, or varieties.

The way that light interacts with the gem may create some astonishing optical phenomena, such as a star, a cat's eye effect or change of color, in different varieties

**Transparency**

As light passes through a gemstone, part of it, if not all, will be absorbed, and part will be transmitted. The more light that is absorbed the less transparent the stone will be.

**Characteristics**

Internal characteristics are the fingerprints of a gemstone. Not only do they provide essential information about the formation, but also the possible geological and geographical region where they originate from. Sometimes they also provide information about whether the gemstone has been treated.

**Refractive Index**

When light passes through air and enters a gemstone it slows down due to a difference in the medium. The ratio between the speed of light in air and in a particular medium is known as the Refractive Index.

**Optic Character**

Determining how light travels through the crystal. Using a range of specialized instruments, we will be able to establish if the stone is isotropic or anisotropic, uniaxial or biaxial.

**Specific Gravity**

Specific gravity is the ratio of the density of the gemstone to the density of an equal volume of water.

All IGI Laboratories employ a wide range of state-of-the-art equipment, like FTIR and Raman spectrometers, all of which give a unique spectral graph for different gemstones. They can reveal the species of the gemstone, treatments and, at times, even the geographic origin.

**OPTICAL and PHYSICAL PROPERTIES**

Refractive Index	1.577 - 1.583
Birefringence	0.006
Optic Character	UNIAXIAL
Optic Sign	-
Specific Gravity	2.72

*Optical and physical properties are approximate values*

Comments:  
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Photography is approximate



**IGI**



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