

Diamond The King Of Gems

Contributed by Administrator
Tuesday, 13 November 2007
Last Updated Tuesday, 13 November 2007

The diamond may well be called the king of gems. As the hardest mineral substance known to man, it combines decorative beauty with an ever increasing usefulness in science and technology.

Diamonds occur in nature in various crystal forms but, as was stated earlier, are most commonly found in the shape of the octahedron. Occasionally, crystals are found where each face of the octahedron has been replaced by three smaller faces, so that the crystal becomes twenty-four sided. There may even be diamond crystals with forty-eight faces or twelve faces, and they can also occur in the shape of the simple six-sided cube.

Diamonds, however, do not only occur in single crystals. In Brazil, particularly, they are sometimes found in lumps comprising many tiny, impure crystals tightly packed together. In this form, they are known as carbonado, a substance highly prized for its uses in industry. The tight atomic arrangement within the diamond crystals makes them extremely resistant to most external influences. Even the strongest acids have little effect upon them at ordinary temperature. Yet, if heated in air to a temperature of 900° centigrade, a diamond will burn until there is very little of it left, for it will be converted almost completely into the gas carbon dioxide (CO₂) and disappear into the atmosphere.

Diamond material in its many varying shapes and forms is not as rare as is commonly believed. Only in its purest colorless form is it a scarce and valuable gem stone that can be made to reach a final peak of beauty after it has been skillfully cut and polished.