

10420 Sodalite

Very light white-blue, semi precious stone

Chemical ideal Formula: $\text{Na}_4\text{Al}_3(\text{SiO}_4)_3\text{Cl}$, Sodium Aluminum Silicate Chloride
Molecular Weight: 969.21 g

Sodalite is a rare, rich royal blue mineral widely enjoyed as an ornamental stone. Although massive sodalite samples are opaque, crystals are usually transparent to translucent. The blue colour depends on a small presence of Sulphur ions. Sodalite is a member of the sodalite group and together with hauyne, nosean and lazurite is a common constituent of lapis lazuli.

Discovered in 1806 in Greenland, sodalite did not become important as an ornamental stone until 1891 when vast deposits of fine material were discovered in Ontario, Canada. It has since been named Princess Blue after Princess Patricia who, upon visiting Ontario some time after its discovery, chose sodalite as interior decoration for Marlborough House in England.

Properties

A light, relatively hard yet fragile mineral, sodalite is named after its sodium content; in mineralogy it may be classed as a feldspathoid. Well known for its blue colour, sodalite may also be grey, yellow, green, or pink and is often mottled with white veins or patches. The more uniformly blue material is used in jewellery, where it is fashioned into cabochons and beads. Lesser material is more often seen as facing or inlay in various applications.

Although very similar to lazurite and lapis lazuli, sodalite is never quite comparable, being a royal blue rather than ultramarine. Sodalite also rarely contains pyrite, a common inclusion in lapis. It is further distinguished from similar minerals by its white (rather than blue) streak. Sodalite's six directions of poor cleavage may be seen as incipient cracks running through the stone.

Hackmanite is an important variety of sodalite exhibiting tenebrescence: when freshly quarried, it is a violet to red colour and gradually fades to a white or green in sunlight. If left in a dark environment for some time, the violet will return. The process is accelerated by the use of shortwave ultraviolet light. Much sodalite will also fluoresce a patchy orange under UV light.

Occurrence

Occurring typically in massive form, sodalite is found as vein fillings in plutonic igneous rocks such as nepheline syenites. It is associated with other minerals typical of undersaturated environments, namely leucite, cancrinite and natrolite.

Significant deposits of fine material are restricted to but a few locales: Bancroft, Ontario and Mont-Saint-Hilaire, Quebec in Canada; and Litchfield, Maine and Magnet Cove, Arkansas in the USA. Smaller deposits are found in South America (Brazil and Bolivia), Portugal, Romania, Burma and Russia. Hackmanite is found principally in Mont. Saint-Hilaire and Greenland, the latter locale producing a green specimen nicknamed "chameleon sodalite."

Euhedral, transparent crystals are found in northern Namibia and in the lavas of Vesuvius, Italy. These rare specimens are highly prized by collectors.

(From Wikipedia, the free encyclopedia, 2006)