



Quartz or « rock crystal »

Quartz is one of the major components of the Earth's crust. It can be found in many of our mountain ranges, and particularly in the Alps. It is a colourless, transparent, crystallised silica (SiO₂) commonly known as « rock crystal ».



Quartz « rock crystal », La Gardette, Isère, France. © Coll. Muséum d'Histoire Naturelle de Grenoble

The three forms of silica :

- crystalline,
- nanocrystalline,
- vitreous

- The crystalline form is found in many rock formations, such as magmatic (granites), sedimentary (sandstone, sand) and metamorphic (quartzite) rocks.

- The nanocrystalline form, with minute crystals, is present in agates, chalcedony and flint.

- The vitreous form is rare, but can be found in opal and obsidian (volcanic lava)

Quartz's variety of forms is due to the environment it is formed in.

Quartz often presents six-sided prism facets terminating with six-sided pyramids.

In its purest form it is colourless and transparent, and known as « rock crystal ». Impurities are responsible for its coloured forms: violet for amethyst, yellow for citrine.

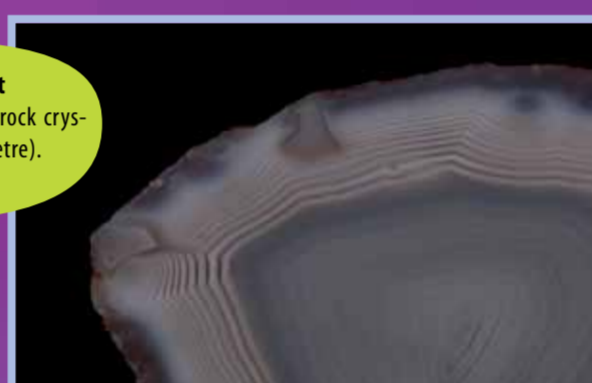


Native gold on quartz, Mine de la Gardette, Isère, France. © Coll. Muséum d'Histoire Naturelle de Grenoble

Agate, chalcedony and flint
Agate, chalcedony and flint are formed from rock crystals of microscopic size (1 millionth of a metre).
Coll. Muséum de Grenoble



Agate, Cape of Good Hope, South Africa © Coll. Muséum d'Histoire Naturelle de Grenoble



Chalcedony © Coll. Muséum d'Histoire Naturelle de Grenoble



Quartz amethyst, Silver-Star, Montana, USA. © Coll. Muséum d'Histoire Naturelle de Grenoble



Quartz herisson, Mine de la Gardette, Isère, France. © Coll. Muséum d'Histoire Naturelle de Grenoble