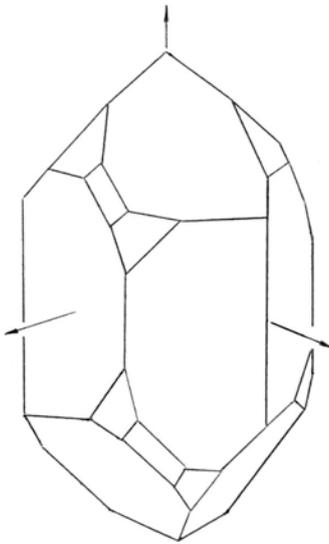
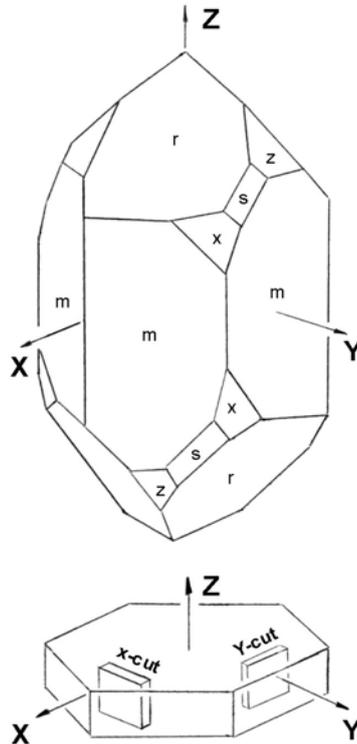


Left Handed



Right Handed



Quartz is normally Right Handed and exhibits natural facets as shown.

Left Handed Quartz is available by special request.

c-pinacoid m-prismatic

s-trigonal pyramid

r-positive rhombohedron

z-negative rhombohedron

x-trigonal trapezohedron

Cutting directions can be referred to in confusing and conflicting ways. These are equivalents:

C-plane (0, 0, 0, 1) Z-cut

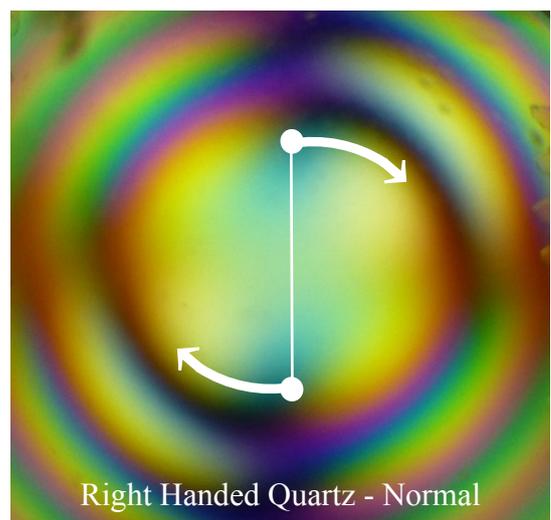
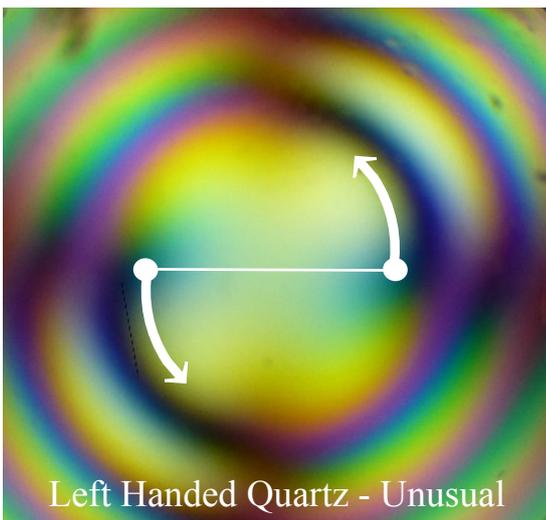
A-plane (1, 1, -2, 0) Y-cut

M-plane (1, -1, 0, 0) X-cut

The C-axis \equiv Z-axis

For electronics synthetic crystal is grown as z-bars and there are dozens of different cuts of which AT-cut and BT-cut are the most common. Crystran does not serve this market.

Quartz exists in Right-Handed and Left-Handed forms which determine how the crystal rotates the plane of polarised light. There are several ways of testing for this, but a good way is to use a polarising screen with a piece of cross-polarising film. Inserting the quartz will require the film to be turned clockwise (RH quartz) or anti-clockwise (LH quartz) to restore the extinction or the isogyre. Alternatively, with quartz cut with the C-axis perpendicular to the surface, use polarising spectacles with quarter-wave plates to see the patterns as shown. With LH quartz the rings appear to spin out from the middle in an anti-clockwise direction. In normal RH quartz, in a clockwise direction.



This listing represents the best of our understanding at present, and is not intended to be comprehensive. Within many of the basic material grades given, manufacturers usually have several subdivisions relating to quality. Crystran Ltd cannot be responsible for any problems caused by wrongly specified material as a result of using this data sheet. Suitability of material for purpose must always be confirmed at point of ordering.

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