

CADMIUM TELLURIDE SINGLE CRYSTAL SUBSTRATES

Twin free single crystal **CdTe**, lattice matched **CdZnTe** and **CdMnTe** epitaxial substrates for **MCT** infrared detectors.



SPECIFICATIONS:

DOPING: Normally undoped, but may be doped upon request.

SIZES: Up to 30cm² area, round, square, or rectangle in shape.
We can meet very tight tolerances on thickness.

TRANSMISSION: Guaranteed 50% from 2.5 to 16 microns.
60% available.

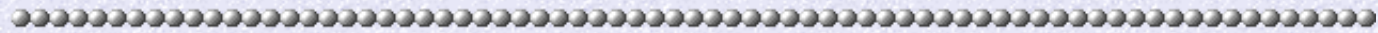
PRECIPITATES: 100% I.R. microscopic examination at various magnifications.

ORIENTATION: Normally (111) within 15 minutes. A and B surfaces identified, (100) and (110) within 15 minutes.

EPD: Less than 5x10⁵ (cm²) **Nakagawa Etch** .

SURFACE FINISH: As sawn, polished on one or both sides per your specifications. Chem Polish on request.

SCREENING: CdTe and CdZnTe substrates are pre-screened to assure no type conversion during L.P.E. and post anneal.



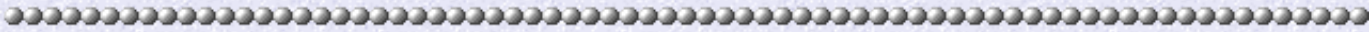
CADMIUM TELLURIDE INFRARED OPTICAL BLANKS AND FINISHED OPTICS



SPECIFICATIONS:

TRANSMISSION: Transmits in the infrared at 67% between 2 and 28 microns with polished uncoated surfaces:

SIZES: Window blanks of any diameter between 5mm and 75mm are standard. Thicknesses between 1mm and 1cm are typical, but are available as long as 6cm. Squares,rectangle and other configurations are also available on a custom basis. Dimensional tolerances of plus or minus .002" are typical.



CADMIUM TELLURIDE SINGLE CRYSTAL ELECTRO-OPTICAL MODULATORS



SPECIFICATIONS:

ORIENTATION: Oriented for either **AM** or **PM** modulation.

TRANSMISSION: Normally greater than **98%** in the center of the beam path.

SIZES: Up to 12 x 12 x 60mm.

ABSORPTION: Less than 0.002/cm at 10.6 micron.

COATINGS: End faces(110) AR coated for 10.6 micron modulation. *Coatings for other wavelengths are available.*

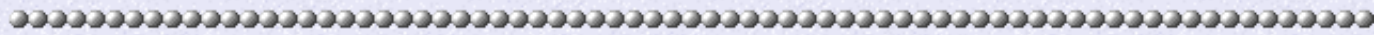
RESISTIVITY: Greater than 10^8 ohm/cm when measured in the dark.

ELECTRODES: Chemically etched and Ag-Cu-Au coated.

PARALLELISM: 20 arc seconds or better.

POLISH: End faces polished to Lambda/20 or better.

FINISH: 40/20 or better



BULK MATERIALS

Bulk material and custom grown boules can be supplied on a toll basis.

