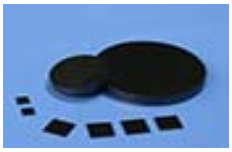
Silicon Crystal & Compound Semiconductor

Cadmium Telluride (CdTe) Substrate

Cadmium Telluride Substrate is a semiconductor of high purity Cadmium and Tellurium, which can be widely used for PIN semiconductor structure manufacturing, electro-optic modulators designing or target materials epitaxy processing, and E-beam technology research. Meanwhile, CdTe can be alloyed with Mercury to make a versatile infrared detector material (HgCdTe), or to make an excellent solid-state X-ray and gamma ray detector CdZnTe with a small amount of Zinc. 5x5mm or 10x10mm of CdTe square substrate is available, 5N 6N 7N monocrystalline ingot also can be supplied.



No.	Items		Standard Specifications
1	Structure Formula		Cadmium Telluride
2	Shape		Square
3	Size	mm	5x5, 10x10 or as required
4	Thickness	μm	500, 1000 or 3000
5	Orientation		<100> <110> <111>
6	Surface Roughness	Å	<10
7	Surface Finish		P/E, P/P
8	Packing		In vacuum bag inside, carton box outside

Cadmium Zinc Telluride (CdZnTe) Substrate

Cadmium Zinc Telluride Substrate (CdZnTe or CZT), is an alloy of Cadmium, Zinc and Tellurium. A direct band gap semiconductor used in a variety of applications, including semiconductor radiation detectors, photorefractive gratings, electro-optic modulators, solar cells, and terahertz generation and detection. The band gap varies from approximately 1.4 to 2.2 eV. 10×10×1.0mm, 14×14×1.3mm or 25×25×1.3mm is available.

No.	Items		Standard Specifications
1	Structure Formula		Cadmium Zinc Telluride
2	Shape		Cubic
3	Size	mm	10×10×1.0 or 14×14×1.3 or 25×25×1.3
4	Conductivity		P
5	Orientation		<111> or <211>
6	Resistivity	Ω·cm	ρ>1E6
7	IR Transmission	min	60%, (1.5-25 μm IR wave)
8	X-ray	rad.s max	≤30 DCRC FWHM(FWHM)
9	EPD	cm^{-2}	<4E10, <111>; 1E10, <211>
10	Surfaces Roughness	nm max	5
11	Packing		In vacuum bag inside, carton box outside

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