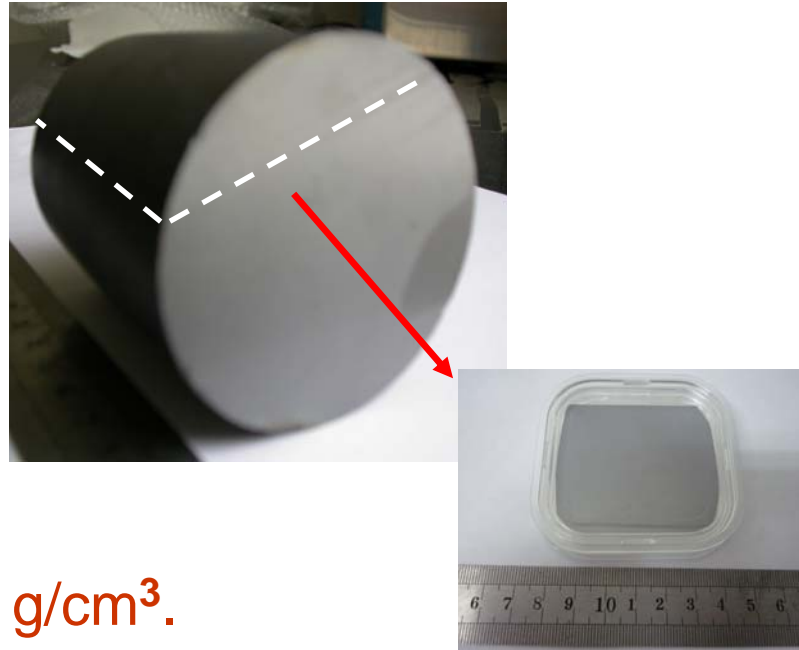
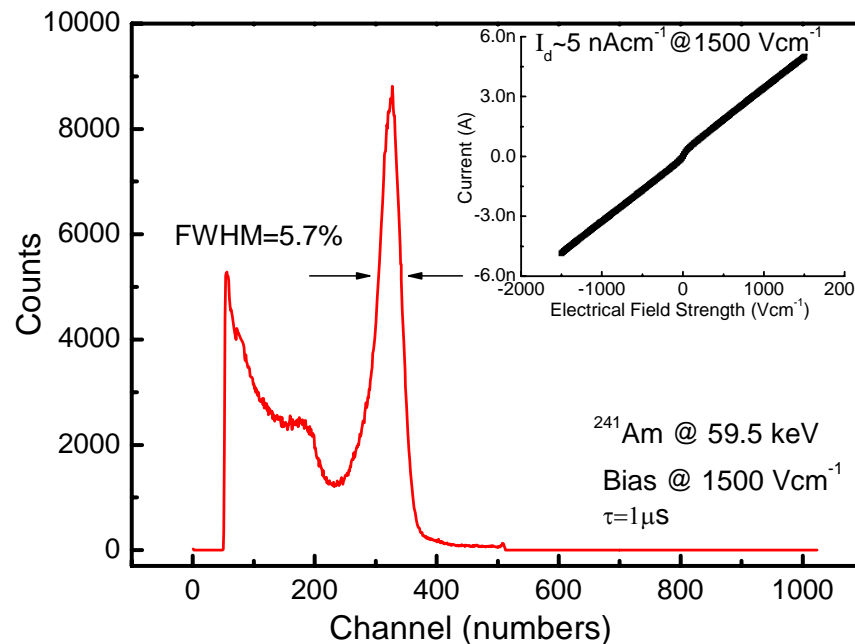


# Properties of Detector-Grade CdTe Crystals from MTI



- Density:  $5.85 \text{ g/cm}^3$ .
- Bulk resistivity:  $2\sim 9 \times 10^9 \text{ } \Omega\cdot\text{cm}$ .
- Leakage current:  $1\sim 10 \times 10^{-9} \text{ A}$  @ electrical field strength of  $1000 \text{ V/cm}$ .
- Electron-hole pair production energy:  $E_{\text{pair}} = \sim 4.4 \text{ eV}$ .

- Electrode type: Ohmic/ Schottky.
- Electrode material: Gold, Aluminum, Indium and Platinum.
- $(\mu\tau)_e = 1\sim 3 \times 10^{-3} \text{ cm}^2/\text{V}$ .
- Typical thickness of the detector: 1.5 mm. (Custom thicknesses available)



Typical spectroscopy response from a completed CdTe planar device irradiated by an un-collimated <sup>241</sup>Am source

# Anode

## SURFACE 1

Parameter	Values	Tolerances
Contact material	TBD	
Pixel matrix	8 x 8	
Pixel pad size	1.86 x 1.86 mm <sup>2</sup>	± 0.05 mm
Inter-pixel gap	0.6 mm	± 0.05 mm
Thick border	0.26 mm	± 0.01 mm
Thin border	0.06 mm	± 0.01 mm

