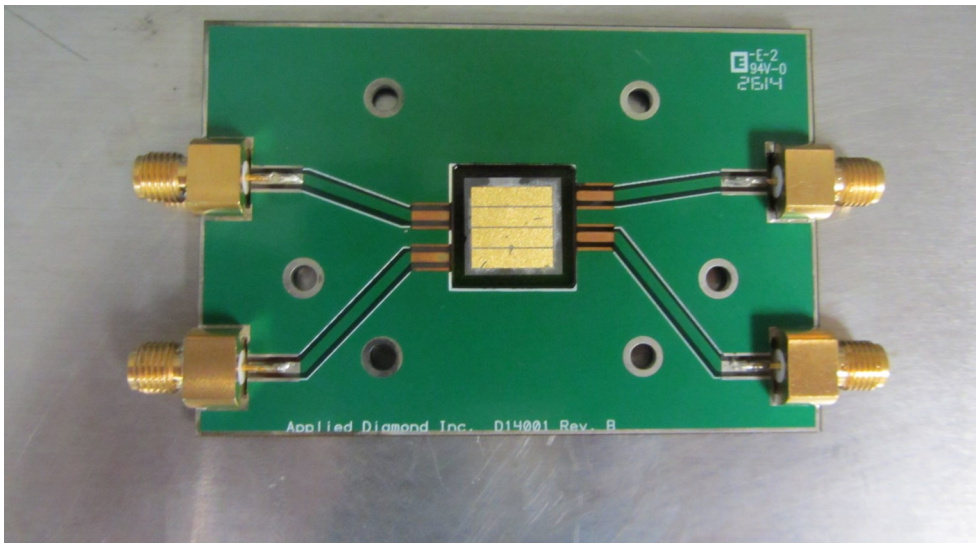
DIAMOND DETECTORS—X-RAYS AND CHARGED PARTICLES

Applied Diamond, Inc

Nuclear Physics, High Energy Physics, Synchrotrons

Improved Sensitivity and Timing Resolution, Low Noise, Lower Cost

The superior properties of diamond have proven to be effective for today's 3rd and 4th generation light sources as well as for detecting minimum ionizing particles in High Energy Physics applications where the detector is exposed to high doses of radiation. Position sensitive diamond detectors meet the precise time-of-flight measurement requirements for heavy ion beams consisting of multiple ion species in Nuclear Physics. The detectors are available in a range of packages, including BMC/ SMA and TNC



- ***Ultra-High Thermal Conductivity.*. up to 2000 W/mK**
- ***Large Band Gap* (5.45 eV) for low leakage current**
- ***High Electron Hole Mobility for fast signal response***
- ***Extreme Resistance to Harsh Environments***

- Very low leakage currents allow for operation at room temperature
- Extreme radiation tolerance extends life
- Larger active diamond area at lower cost

APPLIED DIAMOND, INC .

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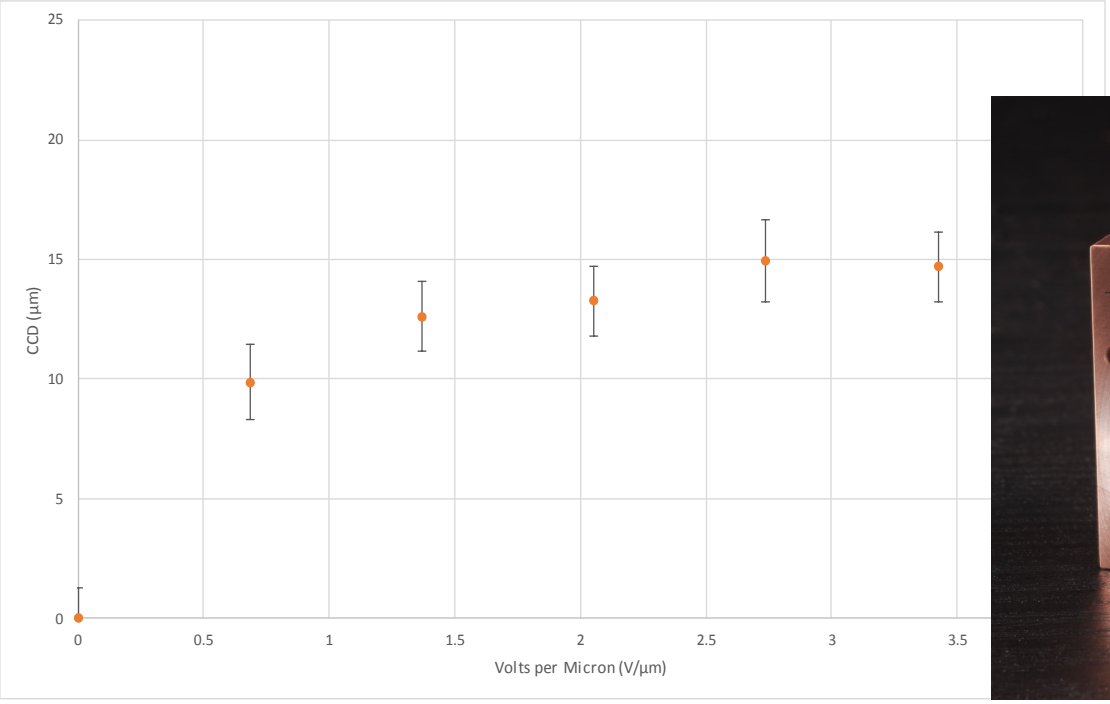
Email: services@.usapplieddiamond.com

Thin Detector-grade Diamond Plates and Assemblies

IMPROVED CHARGE COLLECTION



Single Crystal Diamond Plates and Assemblies

Electronic Grade SC Diamond, < 1 ppb nitrogen
Standard size of 4 mm sq
Standard Thickness of 50, 100 ,300 and 500 um
Typical Metalization of Chromium and Gold, 50 nm and 200 nm
Lithography available for patterns and strips

Polycrystalline Diamond Plates and Assemblies

Electronic Grade Polycrystalline Diamond, < 1 ppb nitrogen
Standard size of 10 and 20 mm sq
Standard Thickness of 50 and 100 um
Typical Metalization of Chromium and Gold, 50 nm and 200 nm
Lithography available for patterns and strips

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