

שני טו אב תש"ע
Monday 26 July 2010

CVD Diamond Vs Silicon Detectors

Rad-Hard:

- CVD Diamond is rad-hard, offering a long life in high-energy applications

Solar Blind:

- CVD Diamond is solar blind, so it is not affected by ambient VIS, IR, RF

Thermal Effects:

- Silicon will generate carriers thermally; dark current begins to increase at 26-30C
- CVD Diamond is a wide band gap material; but it will begin to graphitize at 600C

Signal-to-Noise Stability:

- Silicon, as it is damaged, will anneal; the S2N will fall continuously
- CVD Diamond is stable over time; the detector is not continuously re-calibrated

Bringing Advanced Technologies To The People Who Use Them

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