

# **PNDetector**

PNDetector was founded in 2007 with an emphasis on producing innovative and efficient radiation detectors for microanalysis, quality assurance and materials science. Our focus is on developing optimized sensors suited to the individual needs of our customers.

PNDetector's SDDs are at the forefront of radiation detector technology, as they combine both excellent energy resolution and short processing times. Besides single chip configurations, we build monolithic multi-element and large area SDDs, including unique geometries with maximum solid angle. The SDDs are used in a wide variety of instruments, such as the SEM, TEM, XRF and TXRF.

Recently, PNDetector introduced a compact pnCCD camera system for ultra-fast direct electron detection in TEMs.

### **High Resolution Silicon Drift Detector**

- Superior detector performance at all processing times.
- High count rates up to 1 Mcps for single SDDs and several Mcps with our Multi-Element SDDs.
- Our own silicon fabrication facilities offer an unmatched degree of freedom for custom designs from chip to module.

#### **Backscattered Electron Detector**

- Excellent performance at fast scan rates increases throughput and enables low dose imaging (Pixel dwell times down to 20nsec).
- High signal to noise ratios due to very low signal capacitance and optimized collection efficiency.
- Active area in various sizes available.

#### pnCCD (S)TEM Camera

- The pnCCD (S)TEM camera is a pixelated, ultrafast (up to 4.000 fps), and direct electron detector for applications in TEM and SEM.
- Thanks to its outstanding signal to noise ratio, single primary electron detection from 20 keV to 300 keV is possible.
- With its high readout speed it opens up new scientific and analytical possibilities in electron microscopy (e.g. 4D-STEM and TEM imaging).

#### pnCCD Color X-ray Camera

- The pnCCD Color X-ray Camera is a high resolution spectroscopic X-ray imaging system for simultaneous time-, energy- and position-revolved measurements (e.g. combined XRF and XRD).
- Stand-alone benchtop system inclusive software for ambient and vacuum condition.

Thanks to our many years of experience, we can provide customer specific solutions, helping them to achieve their goals. Please contact us with any ideas you may have and together, we will find a solution.

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### How to find us

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For more information on PNDetector products or a copy of our complete catalog please call, write, email, or visit our website.