

## 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. A full system solution is also available for Silicon Drift Detectors and Backscattered Electron Detectors.

### 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 and STEM Detectors

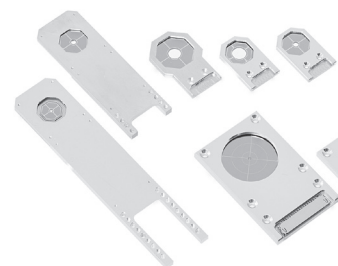
- Excellent performance at fast scan rates (pixel dwell times down to 10 ns), high throughput, appropriate for bio science applications in low keV with optimized detection collection efficiency.
- High signal to noise ratios due to very low signal capacitance (down to 3pF/channel) and excellent geometrical collection efficiency up to 85%.
- Active area in various sizes with up to 13 segments/channels in different geometries available.
- All BSE and STEM detectors are also available with vacuum compatible integrated preamplifier with up to 16 independent channels in a compact housing equipped with switchable preamplification gain (upon demand).

### pnCCD (S)TEM Camera & Color X-ray Camera

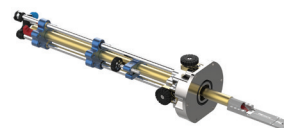
- The pnCCD (S)TEM camera is a pixelated, ultrafast (up to 7.500 fps), and direct electron detector for applications in TEM and SEM.
- Thanks to its outstanding signal to noise ratio, single primary electron detection from 20 keV to 300 keV is possible.
- With its high readout speed it opens up new scientific and analytical possibilities in electron microscopy (e.g. 4D-STEM and TEM imaging).
- Also available as stand-alone high resolution spectroscopic X-ray imaging benchtop system inclusive software for simultaneous time-, energy- and position-resolved measurements (e.g. combined XRF and XRD).

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.

## PNDetector



BSE and STEM Detectors



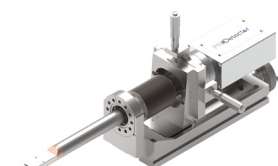
BSE Detector System



pnCCD Color X-ray Camera



pnCCD (S)TEM Camera



Rococo Detector System

### 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.