# **PNDetector GmbH**

PNDetector was founded in 2007 as a sister company to PNSensor, with an emphasis on producing innovative and efficient radiation detector modules for microanalysis, quality assurance and materials science. Our focus is on developing high quality detectors suited to the individual needs of our customers.

Our silicon drift detectors (SDD) are at the forefront semiconductor technology, as they combine both high energy resolution and short processing times. Besides common, single chip configurations, we manufacture monolithic multi element SDDs and large active area SDDs, including special large solid angle SDDs. The SDDs are used for research in a wide variety of instruments, such as SEM, TEM, XRF and TXRF.

Recently, we also introduced our compact pnCCD camera systems for high speed X-ray spectral imaging for XRF or ultrafast direct electron detection in TEMs.

# **High Resolution Silicon Drift Detector**

- Allows for the best spectroscopic performance at short processing times.
- Suited for all types of X-ray detection where the best spectral resolution at high count rate is mandatory.
- Active areas from 5 mm<sup>2</sup> to 100 mm<sup>2</sup> are available.

## **Multielement Silicon Drift Detector and Extra Large Detectors**

- These detectors keep the high spectral performance and provide optimum detection efficiency due to advanced geometry designs.
- Suited for tasks where good energy resolution at high count rate is required, such as in synchrotron applications or large solid angle instrumentation like TXRF, WDX or electron microscopy.
- Active areas from 40 mm<sup>2</sup> to 600 mm<sup>2</sup> are available.

#### **Backscattered Electron Detector**

- Our silicon based electron detectors for backscattered electrons in SEM or primary electrons in STEM (HAADF) can be constructed in many sizes and shapes (segments) as well as in very thin assemblies.
- The detector's architecture provides high detector efficiency and high quality images at 40 Hz or higher refresh rate.

## Planar Thin Windows (PTW)

- Our X-ray transparent nitride based windows are fabricated in a planar process consisting of one or more layers of silicon, dielectric, metal and polymer.
- They are available in three configurations (TP transparent, LS light suppressing, LT light tight) as well as different geometries and sizes.

We are constantly working on the development and manufacturing of new, innovative products. 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.



# How to find us

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