## **PIXCEL**

### The superior detector for advanced XRD

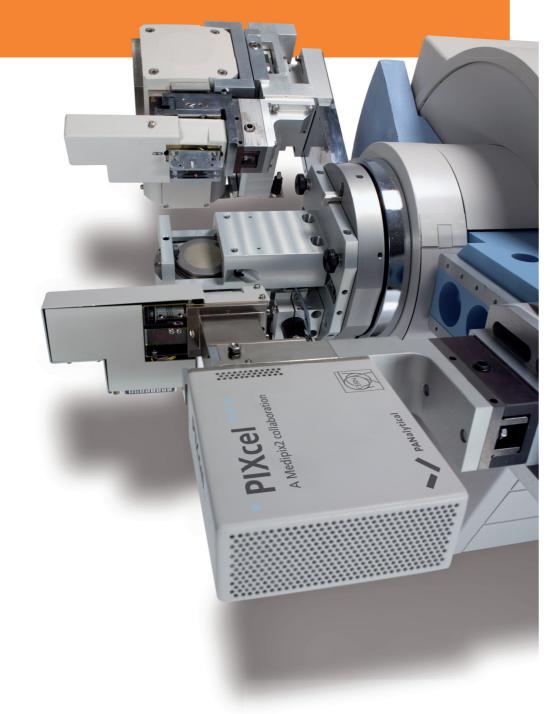
PIXcel, PANalytical's new 2 <sup>nd</sup> generation solid-state detector is designed for even the most demanding X-ray diffraction (XRD) applications. The new PIXcel detector is a highly advanced photon counting device that incorporates the very latest in pixel X-ray detection technology.

PIXcel is the result of a prestigious collaboration with CERN, one of the world's foremost particle physics laboratories, and other leading research institutes as part of the Medipix2 project.

Building on the success of the X'Celerator detector, the PIXcel offers:

- superior resolution
- unmatched dynamic range
- the possibility of combination with all PANalytical's diffracted beam optics

## PIXcel - one detector for all applications



#### PANalytical B.V.

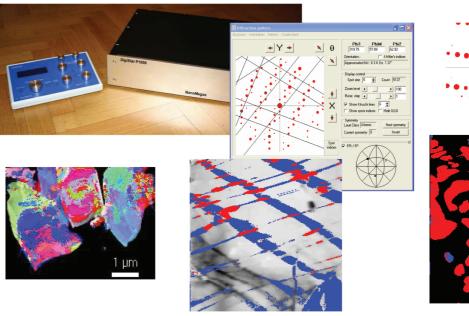
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### **ASTAR**

www.nanomegas.com

# Automatic Orientation - phase mapping precession unit for TEM nanoanalysis







- ASTAR can easily be retrofitted to any (old or new) 100-300 kV TEM
- TEM technique similar to EBSD SEM (with much higher resolution details)
- Perform detailed nanocrystal orientation maps (Orientation resolution < 1°</li>
  1°
  5 nm step size)
- Application for metals, ceramics, semiconductors and any type of diffracting material, any crystal symmetry, no surface sample preparation
- Perform detailed crystal phase maps (resolution < 5 nm -TEM FEG</li>
  < 25 nm LaB6 TEM )</li>
- Ultra-fast data adquisition ( $< 5 \min$ ) (eg 5x 5 microns, 500 x 500 points) with external CCD camera
- Sample scanning combined with precession for accurate orientation -phase maps \*

