



POWDER DIFFRACTOMETRY

- Specialised capillary diffractometer
- ullet Pure $Klpha_1$ for highest data quality
- Highly attractive price in combination with STOE PSD or Dectris MYTHEN silicon-strip detector
- Upgradeable to a full STADI P diffractometer
- Modular system with the possibility to attach up to two independent diffractometers to the horizontally or vertically mounted X-ray tube
- With 1000µm MYTHEN and Ag-X-ray tube the optimal goniometer for PDF data collection
- Delivered with STOE WinXPOW ESSENTIALS

STOE STADI P ESSENTIALS

Representing the **high end diffractometer for capillary** measurements in the price class of table top machines,

this one circle powder diffractometer can be build up horizontally or vertically at a tube housing in a standard STOE cabinet.

The focusing Ge (111) monochromator provides pure $K\alpha_1$ radiation from sealed tubes with Cu, Co, Mo or Ag anode and yields the same high resolution in 20 as the standard STOE STADI P (FWHM < 0.03° for the Si (111) reflection). A video CCD microscope is mounted on the 20 arm to allow the adjustment of capillaries on the goniometer head.

The STOE STADI P ESSENTIALS can be equipped with a position sensitive detector (Dectris MYTHEN or STOE linear PSD) or a point detector on the moving 20 arm and the full variety of STOE's capillary rotating sample holders (standard goniometer head, permanently aligned spinner, Gandolfi sample holder and the 10-fold capillary changer), making a moving omega circle no longer necessary.

Furthermore this goniometer can also be used as a stage for non-ambient measurements in combination with a STOE furnace or a cold head. Together with the Dectris MYTHEN detector this unique application can be used even for time resolved kinetic measurements. But also at room temperature it is an utile extension for the second side of a standard STOE STADI P system.

Using a sealed tube with Ag anode and the Dectris MYTHEN with 1000 µm sensor thickness, the STOE STADI P ESSENTIALS turns out to be an excellent laboratory device to collect data for PDF calculations.

Beyond that, STOE provides an upgrade kit to let this one circle goniometer become a full two circle STOE STADI P for your lab as soon as it will get necessary!

With all these features the STOE STADI P ESSENTIALS is an ultra-flexible combination of low investment costs and the outstanding STOE hardware and data quality.

Each **STADI P ESSENTIALS** is mounted in the STADI P system cabinet. An upgrade to a full STOE STADI P system is as easily feasible as the addition of a second goniometer to



one circle goniometer

implement a double setup, e.g. as shown in the picture below. The wide field of combinations are



WIN POW ESSENTIALS

Included functions:

- Diffractometer control and configuration
- Detector calibration
- Automatic zero shift correction
- Non-ambient data collection
- Graphical data presentation
- Raw-data handling

Adding the optional WinX^{POW}
ANALYSIS evaluation module yields
the full WinX^{POW} software suite

| STADI P ESSENTIALS | SOURCES | OPTICS | DETECTORS |
|--------------------|--------------------|-----------------------|----------------------------|
| Debye-Scherrer | sealed tube | primary monochromator | linear wire PSD, MYTHEN 1K |
| | Ag, Mo, Cu, Co, Fe | | or point detectors |

Dimensions (including system cabinet, max.): 1800 x 880 x 2050 mm, weight: ca. 550 kg

