

STOE STADI P and the MULTI-MYTHEN – fastest data collection, not only for in-situ experiments

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For more than 6 years the Dectris MYTHEN 1K is the standard detector for the STOE STADI P powder diffractometer series, enabling the user to have excellent data quality in a short measuring time. To increase the speed of data collection, especially for the wide field of non-ambient sample investigations, STOE took the opportunity to have up to four MYTHEN2 1K modules on one DCS4 detector control system.

By forming a double, triple or quadruple setup, STOE & Cie presents, depending on the number of modules, the MULTI-MYTHEN 2K, 3K or 4K for 2Theta ranges of appr. 70°, 105° or 140° in Transmission / Debye-Scherrer geometry. Two different measuring strategies, stationary or one step, reduce the typical measuring time below 1 minute yielding data even for structure refinements using the Rietveld method [1].

An introduction of the STOE STADI P, the benefits of the Transmission / Debye-Scherrer geometry, especially in combination with the MULTI-MYTHEN, equipment and data from several measurements as well as a closer explanation of both measuring strategies will be shown.

[1] Rietveld, H.M., *J. Appl. Cryst.* **1969**, 2, 65.