

APEX II ULTRA - Precision and Accuracy

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The APEX II ULTRA is Bruker's top of line crystallographic instrumentation for chemical crystallography. The system combines the most sensitive CCD detector with the brightest Molybdenum source and the most advanced multilayer optics available in a very compact format. The rotating anode is so compact that it can be mounted on the goniometer, setting new standards in ease and stability of alignment. A very small focal spot combined with the HELIOS optics produce a small high flux beam of only 150 micrometer which can increase integrated intensities from small crystals by a factor of 60 compared to standard sealed tube systems.

The APEX II ULTRA's ingenious design allows for a variable beam size with constant flux which allows changing the beam size to 360 micrometer within minutes without changing expensive component.

This presentation will introduce the instrumentation and present examples of charge density studies, data collected on very small crystals and powder diffraction experiments focusing on aspects of precision and accuracy in crystallographic experiments.

