

mardtb/marCSC

Advanced goniostat and automatic sample changer

compact design for synchrotron or home lab





State-of-the-art, fully automated goniostat for macromolecular crystallography:

The mardtb/marcsc combination

mar*dtb*

desktop beamline

An advanced, automated goniostat, X-ray collimation system, and alignment table for single-crystal X-ray diffraction experiments

- **Versatile multi-axis goniostat** – ϕ , 2θ , ϕ -swing, crystal-to-detector distance, beamstop distance, X-ray shutter, crystal-z translation, and optional crystal-xy translation are operated by a built-in realtime controller.
- **Simple X-ray beam alignment** – integral goniostat alignment table (two translations and two rotations), motorized slit system, and built-in X-ray beam monitors allow automated alignment of the entire goniostat to the incoming X-ray beam. Beam monitors enable constant “dose mode” data collection.
- **Easy crystal mounting** using motorized ϕ -swing. ϕ -swing also allows incorporation of marcsc automatic sample changer.
- **Built-in video microscope** with high sensitivity CCD camera and video frame-grabber operates in ambient light and provides images for automated crystal alignment and crystal snapshots for every X-ray data frame.
- **Local control with beam intensity monitor** allows manual operation of dtb and facilitates optimization of X-ray generator optics.
- **Built-in mounting systems** for cryogenic crystal cooling and/or fluorescence monitor.
- **Simple universal detector mount** provides easy mounting and interchange of Rayonix or marresearch detectors.

mar*CSC*

cryogenic sample changer

Reliably mounts, unmounts, and stores cryogenically cooled crystals for unattended data collection

- **Safe recovery and storage of cryogenic samples** – crystals are transferred directly from liquid nitrogen to coldstream and back, directly to liquid nitrogen.
- **Compact design** fits easily on a standard rotating anode table.
- **Easily changed sample carousel holds 19 crystals** in standard cryogenic vials.
- **Automatic and point-and-click crystal centering** with motorized crystal x, y, and z translations.
- **Built-in barcode reader and barcoded caps** for automated sample identification.
- **Local control and foot switch** allow easy use as sample preparation station.
- **Low nitrogen consumption, automatic refill, and ice-free design** provide continuous operation for up to seven days.
- **Available as upgrade** to existing mardtb systems or as an option to a new mardtb.
- **Fully integrated** into the mardtb and Rayonix and marresearch data collection software.

Distributed in North America by

rayonix

High-performance X-ray technology

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