SINCE 1887



STADIVARI

THE FASTEST AND MOST FLEXIBLE WAY TO EXPLORE RECIPROCAL SPACE

We offer for all STOE parts in this product, the new and unprecedented:

5 YEAR | STOE PARTS & LABOR GUARANTEE

For terms and conditions, please send an email to: terms@stoe.com

SINGLE CRYSTAL DIFFRACTOMETRY

- Flexible goniometer (Eulerian cradle and various fixed chi setups)
- Sphere of confusion < 0.01 mm
- State of the art interface
- Various sources (Microfocus BDS etc.)
- Ultrafast hybrid pixel detector

YOUR PARTNER IN X-RAY DIFFRACTION

STOE & Cie GmbH | WWW.STOE.COM

STADIVARI

RAPID, COMPREHENSIVE AND EXTREMELY VERSATILE ANALYSIS OF A WIDE VARIETY OF MATERIALS

SOURCES

- Standard sealed tubes (Ag, Mo, Cu)
- Microfocus sources (Ag, Mo, Cu)
- Rotating anodes or synchroton

OPEN EULERIAN CRADLE

- High precision
- Sphere of confusion < 0.01 mm
- Virtually maintenance-free
- State of the art interface
- Sufficient completeness up to 150°

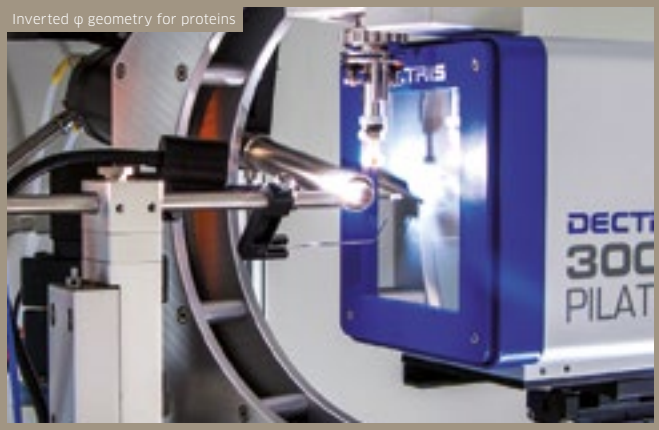
NEW DETECTOR GENERATION

- Dectris Pilatus 200K & 300K pixel detectors
- CMOS hybrid-pixel technology
- Single-photon-counting mode
- No dark current
- Ultra-fast data collection as well as ultra-long exposure times



With the possibility to be set-up vertically as well as horizontally, the **STADIVARI** increases its scope of application. The **STADIVARI** can be used for single crystal and powder diffraction. The Open Eulerian Cradle offers enough space to add high pressure cells, high- or low-temperature devices or other chambers. As the youngest member of the long line of STOE diffractometers, the **STADIVARI** is fully integrated in the well-established STOE X-Area software package.

Inverted φ geometry for proteins



Fixed chi



DOUBLE BEAM SETUP

All combinations of tubes and microfocus BDS possible:

- 2 sealed tubes
- Sealed tube and microfocus BDS
- 2 microfocus BDS

Dual Microfocus Setup



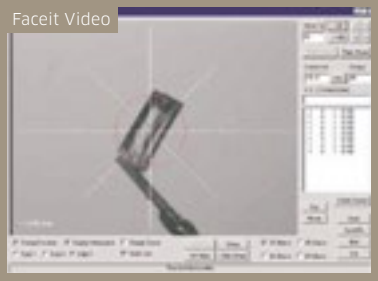
Dual Beam Setup



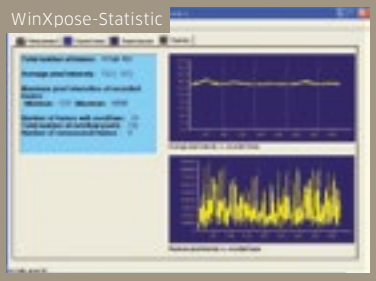
X-Area

- Software for easy data collection and evaluation
- Powerful solution for complicated situations (multi-domain and modulated crystals)
- Support for DACs

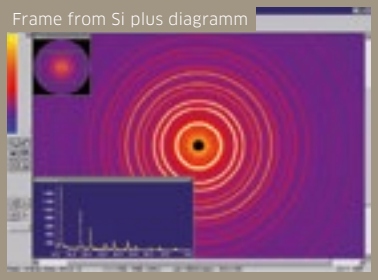
Faceit Video



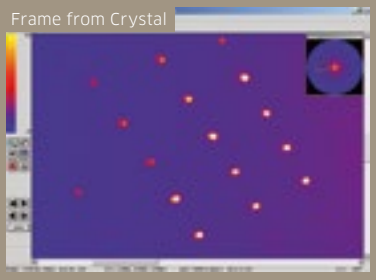
WinXpose-Statistic



Frame from Si plus diagramm



Frame from Crystal





SYSTEM SPECIFICATIONS

Dimensions (including system cabinet, max.)	1680 x 1150 x 2050 mm
Weight (complete system)	480 kg
Sphere of confusion	< 0.01 mm
Goniometer (utilized angular regions)	2θ: 240° / ω: 205° / X: 90° / Φ: 360°
Detector distance	40 – 140 mm (automatically set)
X-ray sources	Standard sealed tubes (Ag, Mo, Cu), Microfocus sources (Ag, Mo, Cu) rotating anodes or synchroton

DETECTOR SPECIFICATIONS	PILATUS 200K 20 Hz	PILATUS 300K 20 Hz
Sensor	Reverse-biased silicon diode array	Reverse-biased silicon diode array
Sensor thickness	320 µm / 450 µm / 1000 µm	320 µm / 450 µm / 1000 µm
Pixel size	172 x 172 µm²	172 x 172 µm²
Number of modules	1 x 2	1 x 3
Format	487 x 407 = 198,209 pixel	487 x 619 = 301,453 pixel
Area	83.8 x 70.0 mm²	83.8 x 106.5 mm²
Dynamic range	20 bits (1:1,048,576)	20 bits (1:1,048,576)
Counting rate per pixel	> 2 x 10^6 cps	> 2 x 10^6 cps
Energy range	3 – 30 keV	3 – 30 keV
Readout time	7 ms	7 ms
Maximum frame rate	20 Hz	20 Hz
Cooling	Air-cooled	Water-cooled

Specifications without obligation and subject to change without notice.

STOE SINCE 1887

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