STOE

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:

10 YEAR | STOE PARTS & LABOR GUARANTEE

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

SINGLE CRYSTAL DIFFRACTOMETRY

- Flexible goniometer (Eulerian cradle, horizontal & vertical, synchrotron and custom setups)
- Sphere of confusion < 5 µm (radius)
- Various sources (Microfocus BDS etc.)
- Ultrafast hybrid pixel detectors

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)
- Conventional & high performance microfocus sources (Ag, Mo, Cu)
- MetalJet (In or Ga alloy) X-ray source
- Synchroton

OPEN EULERIAN CRADLE

- High precision
- Sphere of confusion < 5 µm (radius)
- Virtually maintenance-free
- State of the art interface

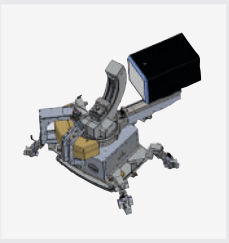
WORLD-LEADING DETECTORS

- DECTRIS PILATUS4 or EIGER2 series
- CMOS hybrid-pixel technology
- Single-photon-counting mode
- No dark current
- Ultra-fast data collection as well as ultra-long exposure times

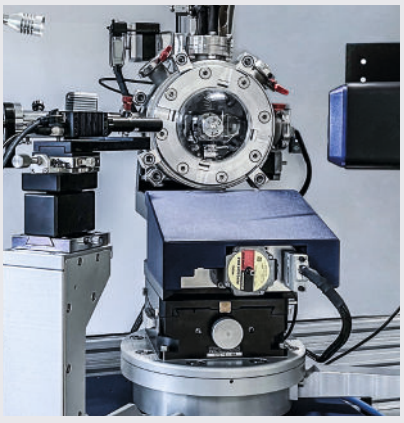
Horizontal and vertical setups, along with the ability to measure single crystalline and powdered samples, broaden the scope of experimental options with the **STADIVARI**. In addition, the open Eulerian Cradle provides ample space for integrating high pressure cells, high- or low-temperature devices, and other chambers. As the newest member of the long line of STOE diffractometers, the **STADIVARI** is fully integrated into the well-established STOE X-Area software package.

FLEXIBLE GONIOMETER SETUP

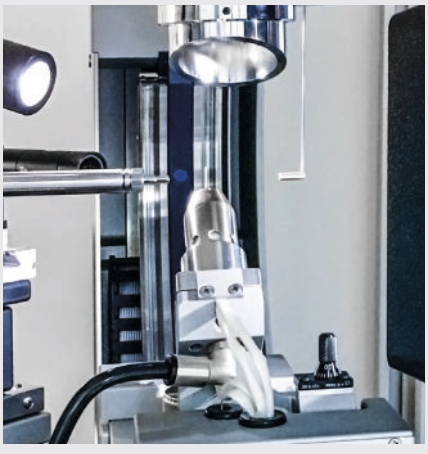
STADIVARI goniometers can be manufactured in various geometries (e.g. horizontal or vertical) and equipped with **a range of sources** from microfocus to full beamline implementation.



Synchrotron

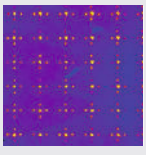


Heavy Load / Custom



Heatstream Setup

$hk\bar{1}$ of $NaNbO_3$



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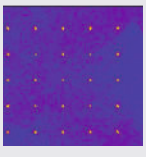


700°C

HEATSTREAM

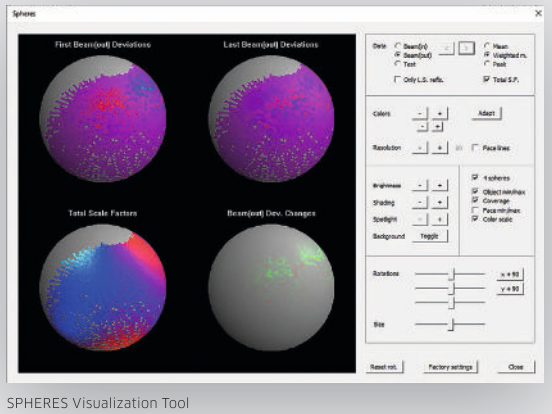
The STOE HEATSTREAM covers a temperature range from **room temperature to 1000 K**. An open flow of N_2 is used as heating medium and ensures constant thermal conditions with an accuracy of ± 1 K for the sample at any diffractometer position.

XYZ STAGES

The light load stage has a protective cover against low temperatures while the heavy load stage is designed for 55 mm diameter DACs. Both xyz stages are based on an IUCr mount, have a **resolution of movement of < 1.5 µm** and a minimal number of cables.

Light Load

Heavy Load



SPHERES Visualization Tool

X-AREA

X-Area is STOE's software for easy data collection and evaluation, and it is a powerful tool for analyzing complicated structures, including multi-domain and modulated crystals. It features **visualization tools for data treatment and quality control**, supports DAC data and can even evaluate powder patterns.

SYSTEM SPECIFICATIONS

The **STOE STADIVARI** X-ray diffraction system combines precision and versatility in an easily accessible housing which provides space to let your experimental creativity flow. It offers exceptional structural analyses with a sphere of confusion < 5 µm in radius. The goniometer encompasses wide angular ranges of up to: 2θ: 240°, ω: 205°, χ: 90°, φ: 360°, while the detector distance ranges from 40–140 mm. Supporting X-ray sources from microfocus sources to synchrotrons, it makes tailor made experimentation possible. Detectors and sources are connected with a closed-circuit, independent water cooling system to prevent excess heat impacting your measurement. Experience advanced structural analysis with the **STOE STADIVARI**.

PILATUS4 R 260K CdTe

Sensor thickness: **1000 µm**
Pixel size: **150 µm x 150 µm**
Energy rage: **8 keV to 25 keV**
Readout time: **continuous readout with < 100 ns dead time**

EIGER2 R 1M CDTE

Sensor thickness: **750 µm**
Pixel size: **75 µm x 75 µm**
Energy rage: **8 keV to 25 keV**
Readout time: **continuous readout with 100 ns dead time**

Other detectors on request.

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STOE & Cie GmbH
Hilpertstrasse 10
64295 Darmstadt | Germany
P +49 6151 988 70
F +49 6151 988 788

STOE Corporation
203 N. LaSalle Street, Suite 2550 |
Chicago, Illinois 60601 | USA
P +1 312 489 8398
F +1 312 489 8582

INFO@STOE.COM
WWW.STOE.COM