# Bringing "Old" Crystallography Equipment Back to New Life: Upgrading Existing Diffractometers with State-of-the-art Microfocus Sources

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Incoatec offers a unique possibility to upgrade your existing diffractometer by installing our high-performance, air-cooled and low-power microfocus source I $\mu$ S.

You have a Bruker AXS, Marresearch, Nonius, Rigaku, Huber or some other system?

Your home lab diffraction system lacks intensity? Brighten it up with Incoatec's state-of-the-art microfocus X-ray source  $I\mu$ S!

A significant increase in flux density of up to 2.10<sup>10</sup> ph/ (s•mm2) and smallest beam cross-sections of down to 95  $\mu$ m can be obtained. With an I $\mu$ S upgrade you will get the highest standard of quality, precision and safety Made in Germany. Our long-standing experience is based on more than 60 upgrades of  $I\mu$ S integrations into nearly all existing X-ray diffractometers worldwide. Your local service contact can be involved in the on-site installation. Additionally, Incoatec provides profound customer support during the whole project and beyond. We take care!

#### Your upgrade options:

- Source, optics and beam conditioning elements
- Single source upgrade for XRD, SCD, (GI)SAXS, XRR and many more applications
- Dual wavelength setup by adding  $I\mu S$  as complementary source
- Cu, Mo, Ag, Co and Cr radiation (others on request)



### Your benefits:

- No maintenance, only single phase power and no water cooling required
- 3 years warranty
- Implementation into Bruker software or stand-alone operation (remote control)
- Maximum installation down time of only 2 4 days
- Full integration into existing safety circuits, new safety concept development on request
- Full compliance with European Machinery Directive 2006/42/EC



# Old systems shining in new bright light ...

### Upgrades on Bruker AXS systems

Incoatec supports full integration into two decades of Bruker's X-ray product portfolio with worldwide project experiences. This includes former Nonius diffractometers, all generations of Bruker D8 machines and the Bruker SAXS product lines. Close teamwork with the Bruker AXS system developers and local service staff ensures the highest standard of system integrity.



Bruker APEX II DUO IµS in Düsseldorf, Germany



Bruker D8 DISCOVER GADDS in Karlsruhe, Germany

### Upgrades on other systems

Nonius Kappa APEX II, FR 590 in Jena,

Germany

Incoatec has upgraded more than 30 other commercial X-ray diffractometers from all over the world. An audit of the existing radiation safety system according to your local safety demands with required upgrades is mandatory. Together with detailed experiences about third-party controller systems Incoatec offers a whole in one diffractometer solution even with these non-Bruker machines.





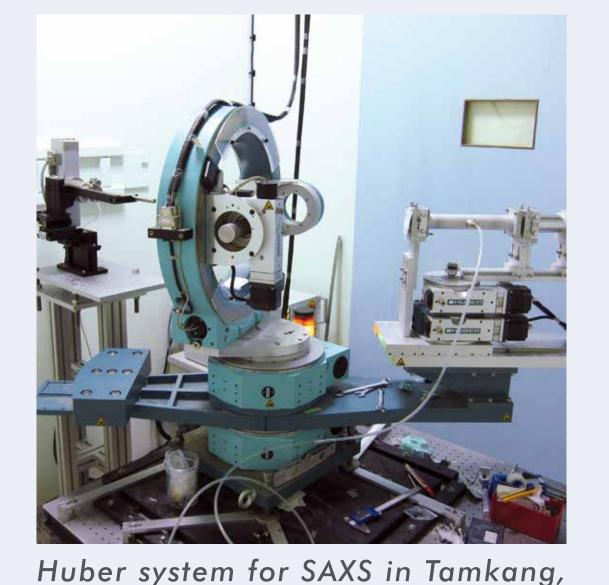
Marresearch 345 in Liege, Belgium



Replacement of Rigaku RU-200 generator in Boulder, USA



Marresearch 345 dtb in Basel, Switzerland



Bruker NANOSTAR (IµS and SCATEX) in

Vienna, Austria

Taiwan

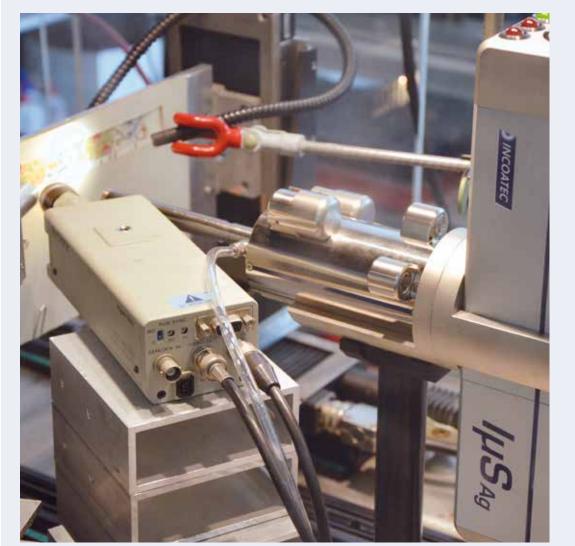
Huber goniometer with APEX II detector in Newcastle, UK

## **Special engineering**

Cutting-edge ideas deserve state of the art technical support. An international team of engineers, physicists and chemists with a broad background in all kinds of scientific applications find the optimal solution also for your specific application. Contact us, challenge us.

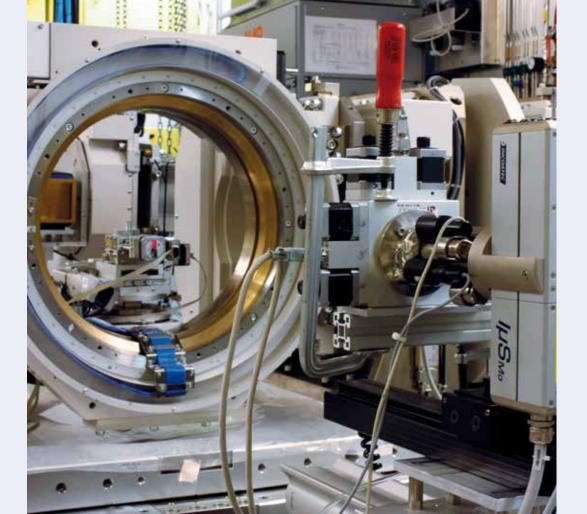


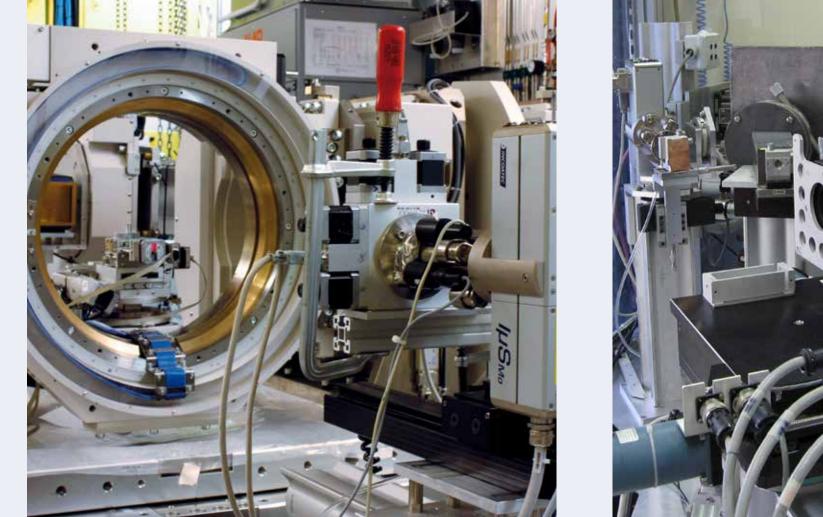












Combined XRF/XRD setup for painting analysis in Antwerp, Belgium



Hexapod adaptation to UHV deposition chamber for in-situ studies in Bratislava, Slovakia

HRXRD setup at synchrotron beamline (Petra III, DESY) in Hamburg, Germany



XRD/XRR setup in synchrotron optics lab at ESRF, Grenoble, France











innovative coating technologies