

HTS-110 supplies custom beamline magnets to the world's leading synchrotron and neutron beamlines



# NEXT GENERATION MAGNETIC ENVIRONMENTS

These instruments take full advantage of the properties of HTS wire to deliver compact, cryogen-free magnets, with field strengths in excess of 8 tesla, providing researchers with next generation magnetic environments for materials characterisation and analysis.

# **BENEFITS:**

- CRYOGEN-FREE OPERATION
- FAST MAGNETIC FIELD-RAMPING
- COMPACT SIZE
- INTEGRATE WITH UHV





#### **COMPLEX, CHANGING USES**

HTS-110 magnets are especially suited to beamline instruments, where compact sizes and complex geometries are required or where the magnetic field needs to be changed regularly, or needs to be rotated relative to the beam.

The breadth of magnets that HTS-110 has developed for beamlines is best illustrated by successful previous projects.



# **MAGNET FOR NEXAFX IMAGING SPECTROMETER**

Location: Brookhaven Laboratory, USA, Field: 8.6T and 0.6T A high field large bore magnet with UHV integration and multi-angle access.



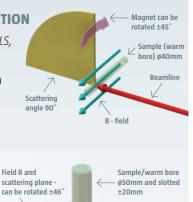
#### **MAGNET FOR X-RAY RESONANT MAGNETIC** SCATTERING AND HIGH-RESOLUTION DIFFRACTION

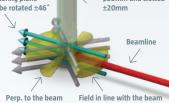
Locations: Hemholtz Zentrum, Berlin; XDS Beamline, LNLS, Brazil, Field: >6T

A unique aspect of these magnets is that they provide a scattering angle of up to 120° and are very compact, allowing them to be installed inside a Eulerian cradle (Huber 512.5) and are able to be rotated.

#### **MAGNET FOR X-RAY MAGNETIC CIRCULAR DICHROISM AND RESONANT SCATTERING EXPERIMENTS**

Location: BOREAS beamline, ALBA, Spain, Field: 2T This magnet is installed inside the UHV chamber and can rotate ± 180° as well as translate 220mm while providing wide-angle scattering access.





slot at +10

with ±46° adjustability



#### **MAGNET FOR X-RAY CIRCULAR DICHROISM EXPERIMENTS (XMCD)**

Location: SINS beamline, NUS, Singapore, Field: 2T This fast ramping magnet is built around the UHV chamber, providing excellent optical access.

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