

SphinX
Solar photometer in X-rays
new – solar - fast
Soft X-ray Spectrophotometer



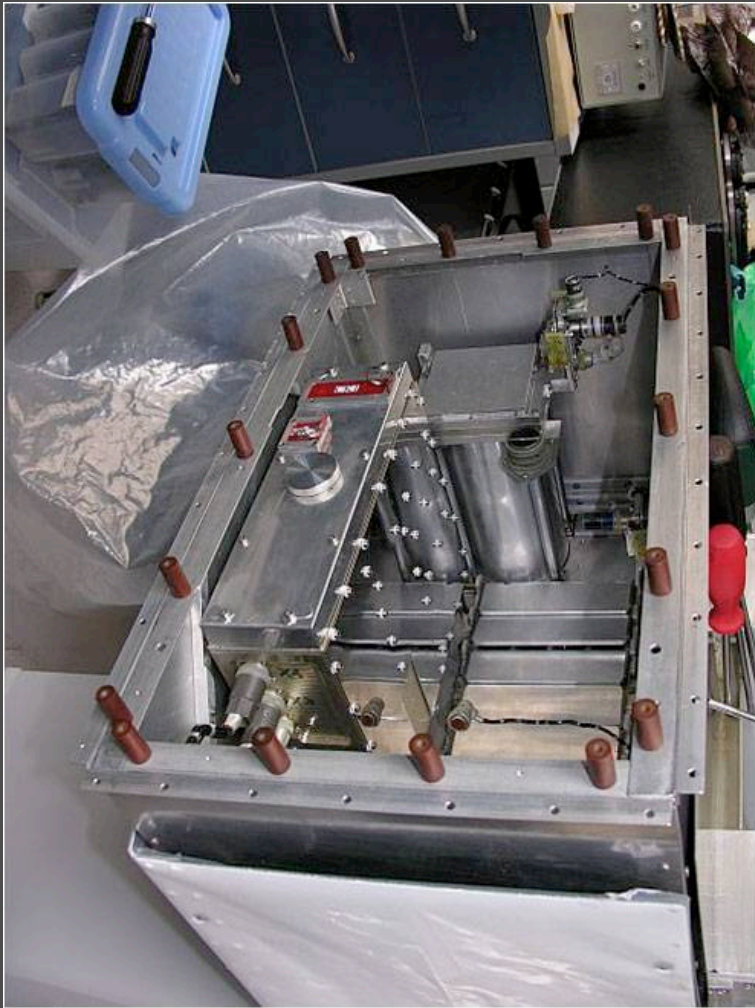
**SphinX – mechanical construction, assembly with TESIS
and
final launch preparations**

Jarosław Bąkała

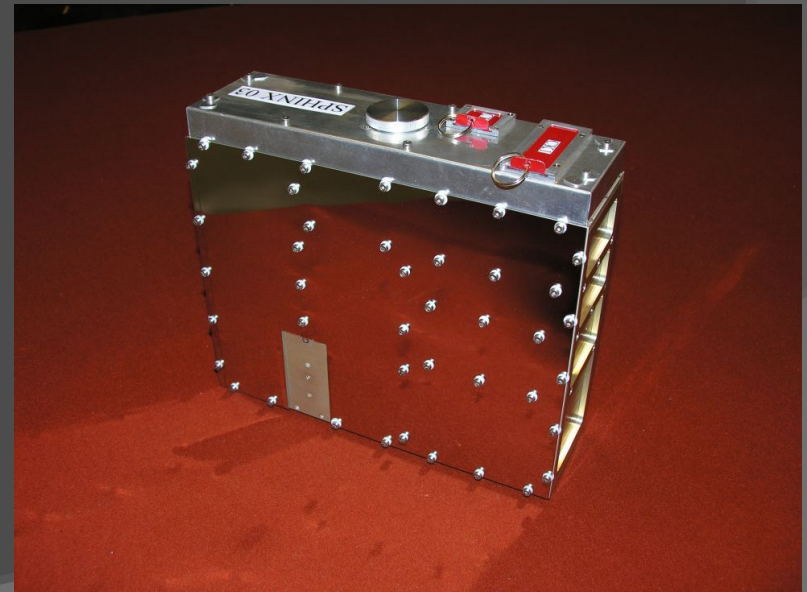
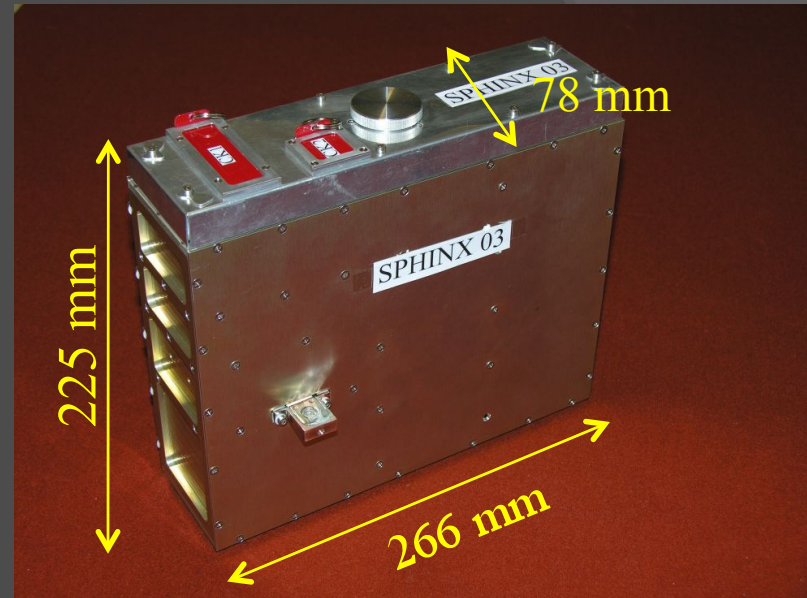
<http://www.cbk.pan.wroc.pl/>



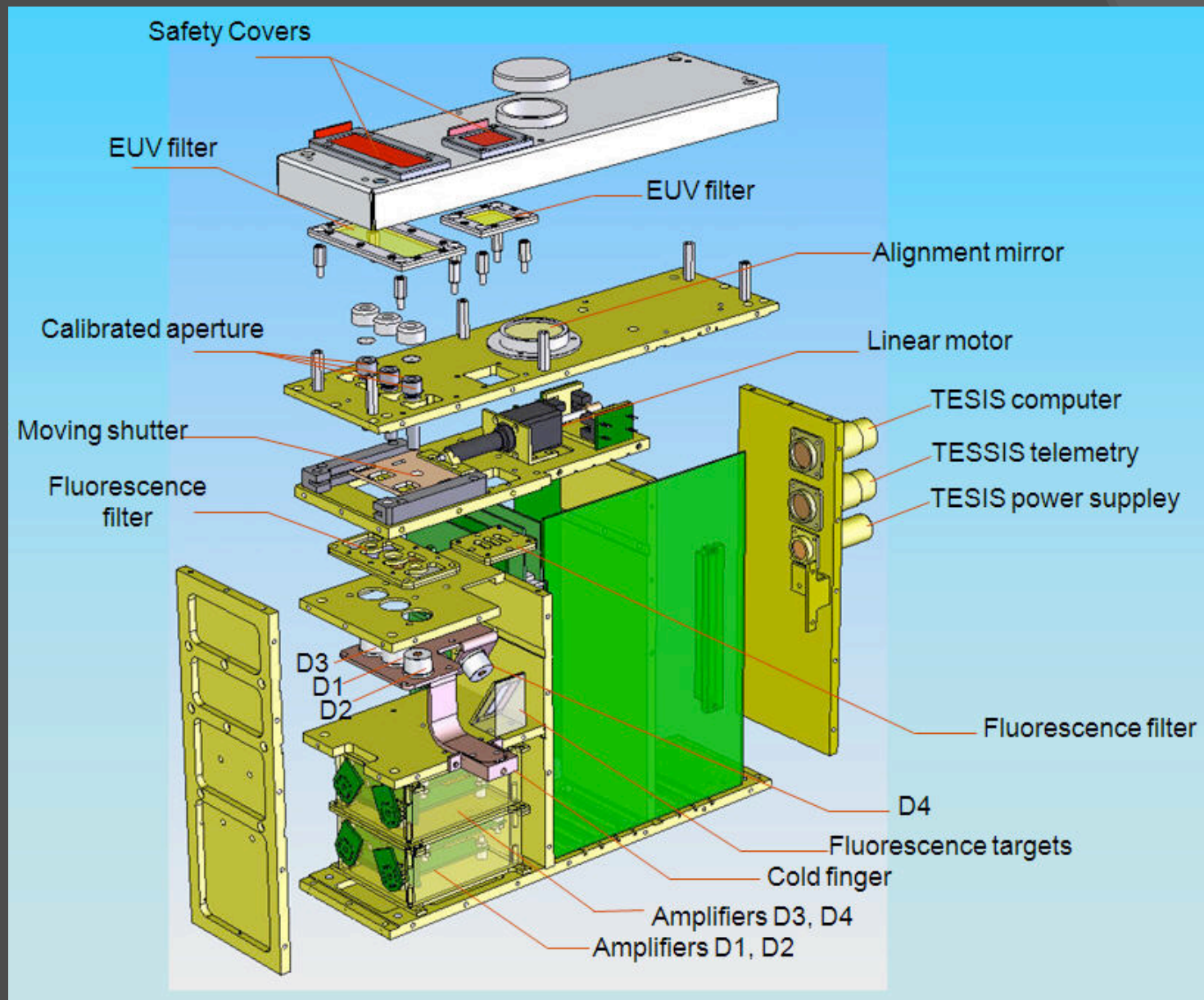
TESIS & SphinX



Length- 266 mm
Height- 225 mm
Width- 78 mm
Mass - 3.5 kg

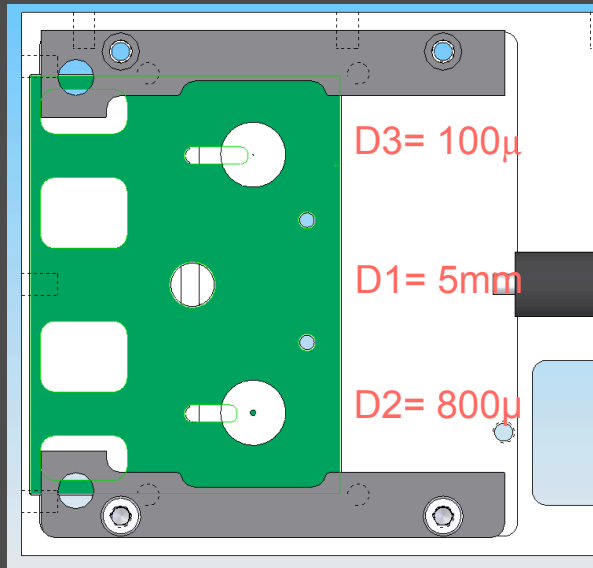


Conceptual sketch of the SphinX instrument

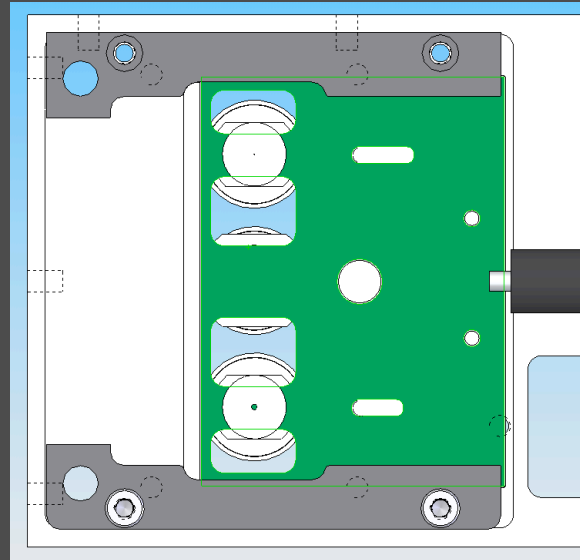


Position moving shuter

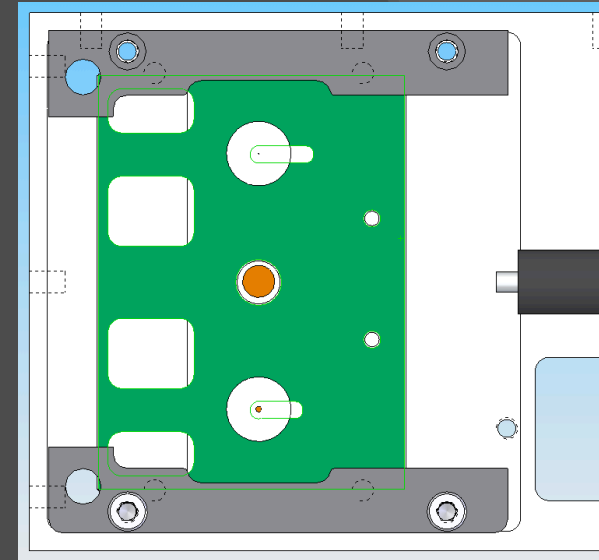
Dark current



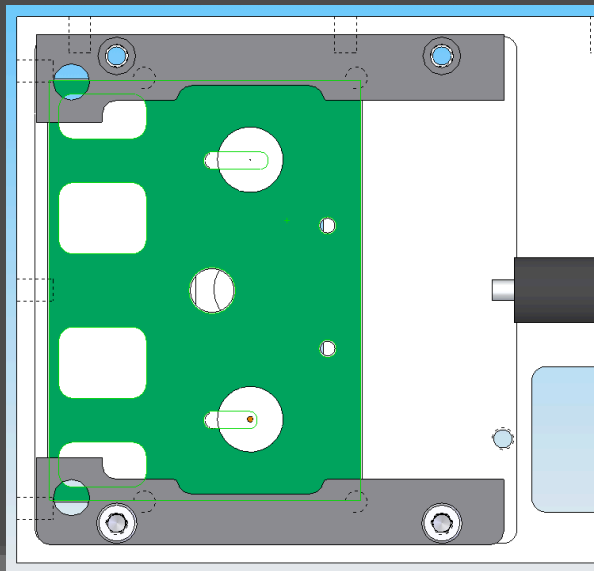
Calibration



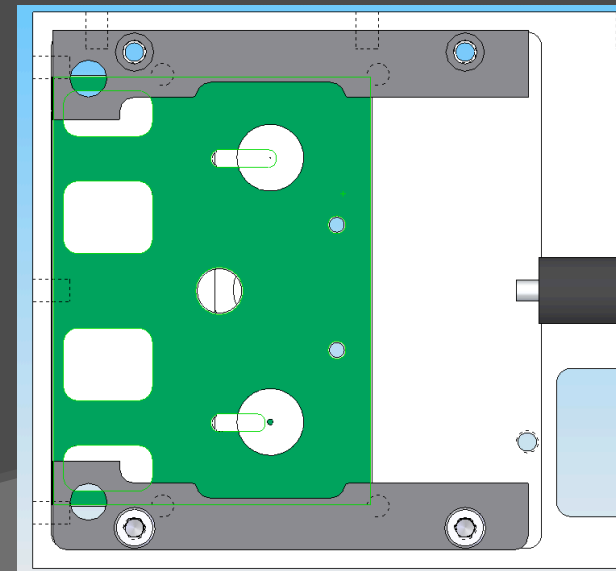
Low activity < B2 GOES



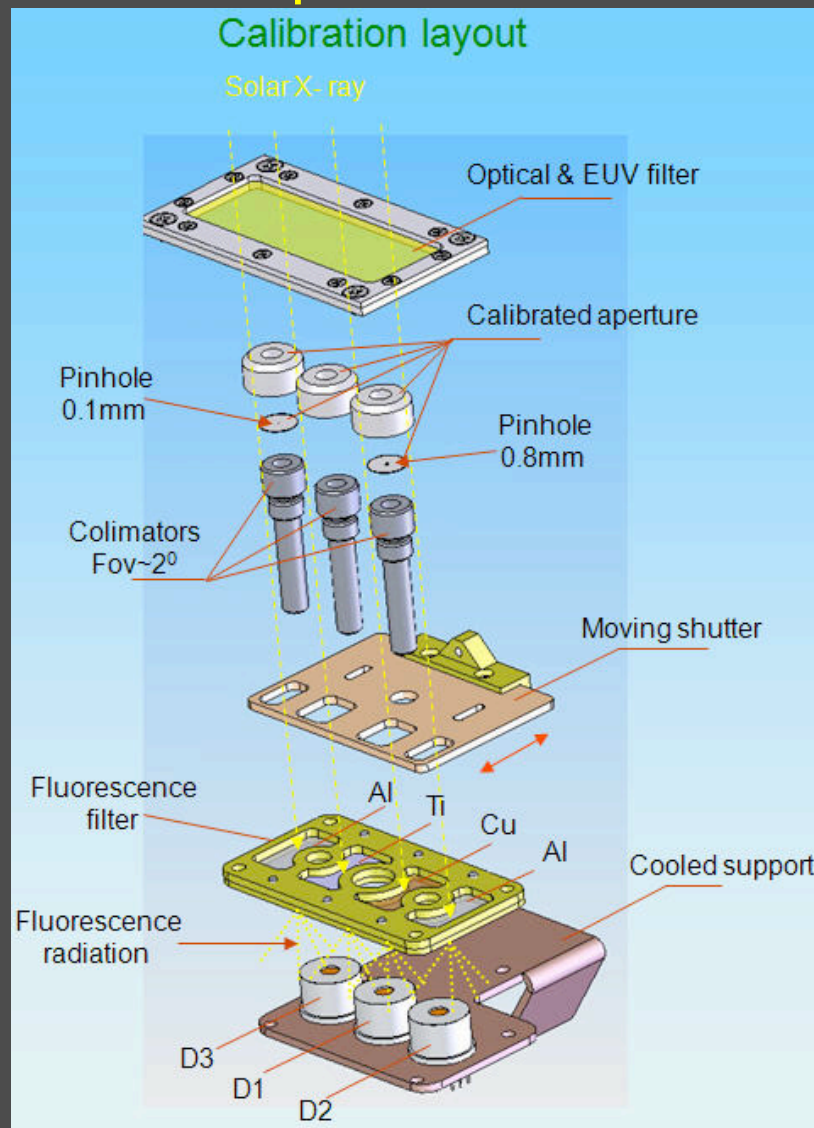
Medium activity >B2 < M2 GOES



High activity > M2 GOES



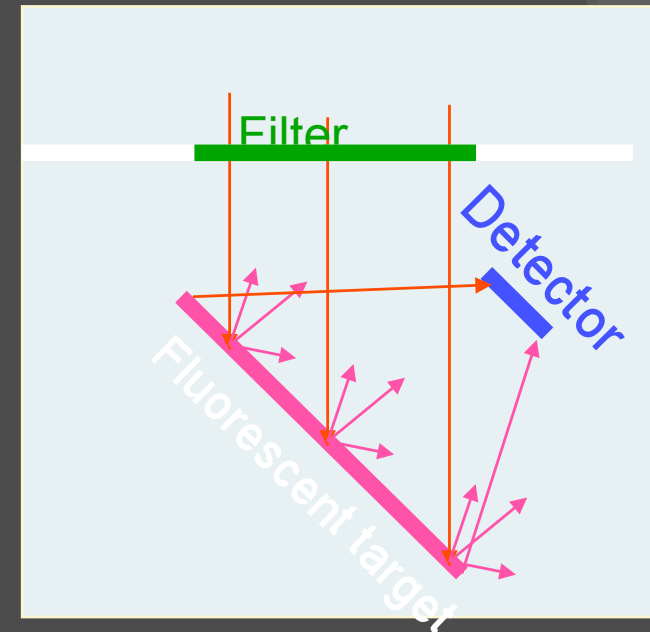
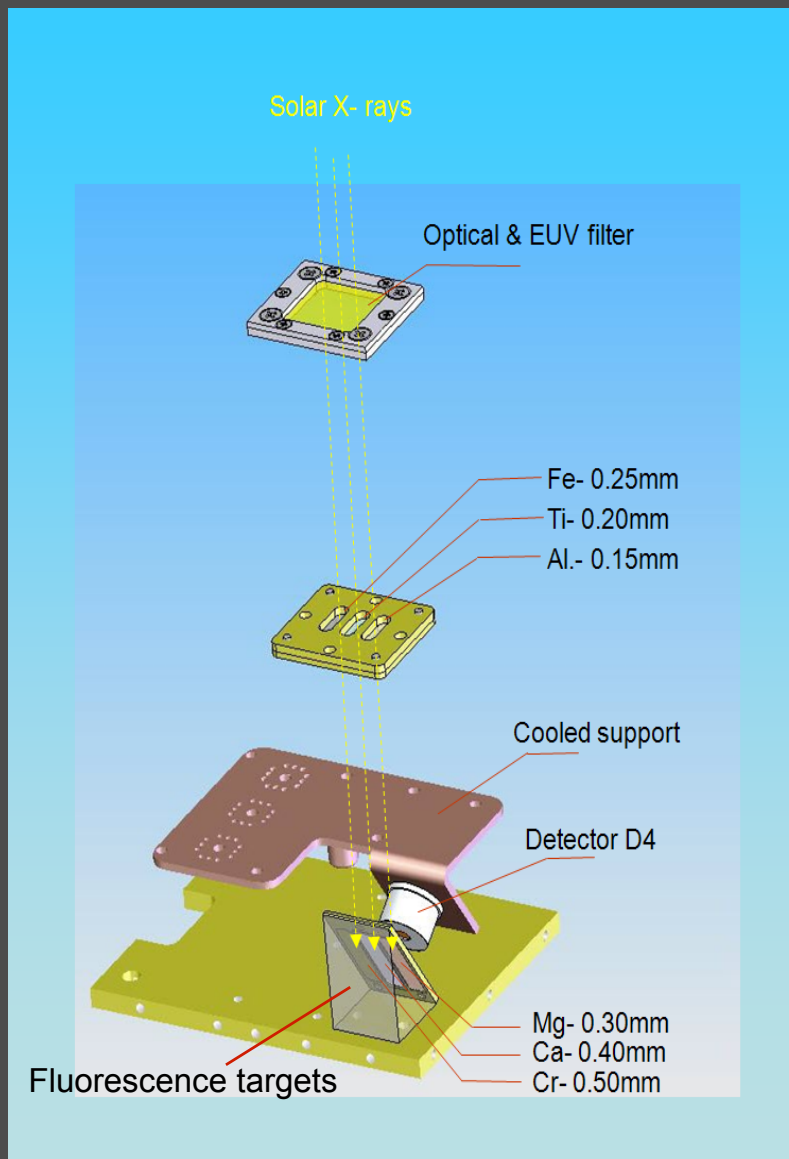
Close-up view of the calibration and measurement layout



The X-ray's radiation triggers the fluorescence which next illuminate detectors.

The X-ray's radiation goes through pinhole, then passes through colimators, windows aperture and illuminate detectors directly

Filter-Fluorescence Unit (FFU) layout

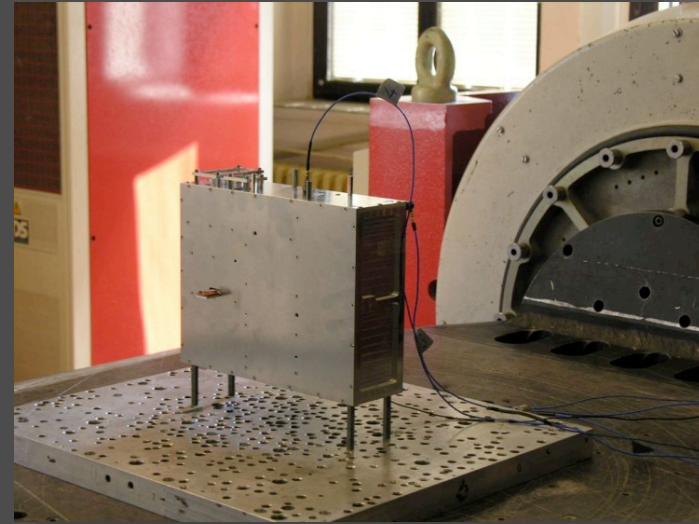


To get above effect, materials on filter and triggering the fluorescence must be chemically clean, containing 99.9%.

December 09-12, 2008 The Second Coronas- Photon and SphinX Workshop

SphinX overload, vibration and acoustic test

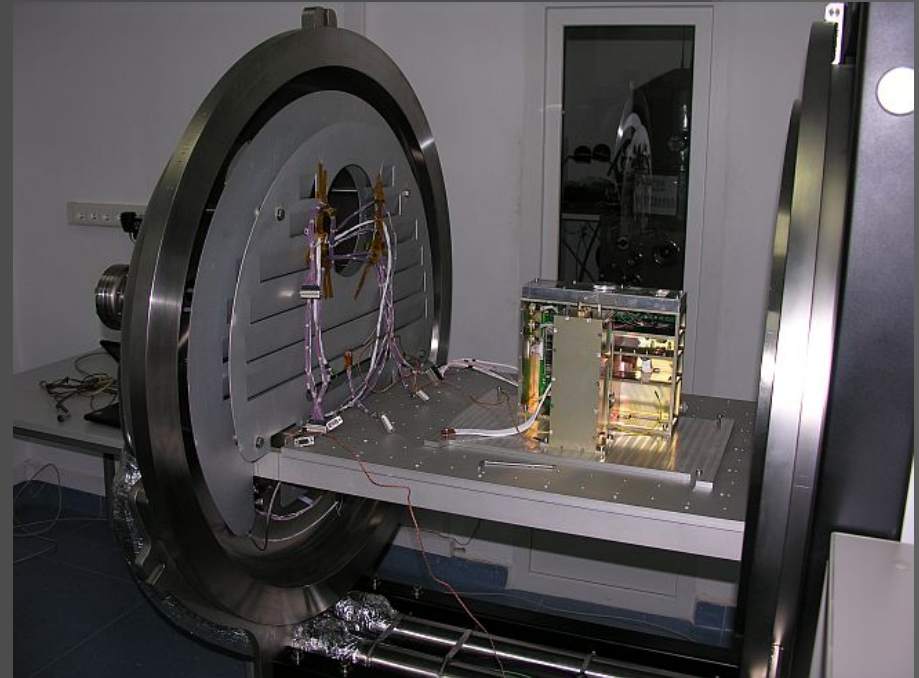
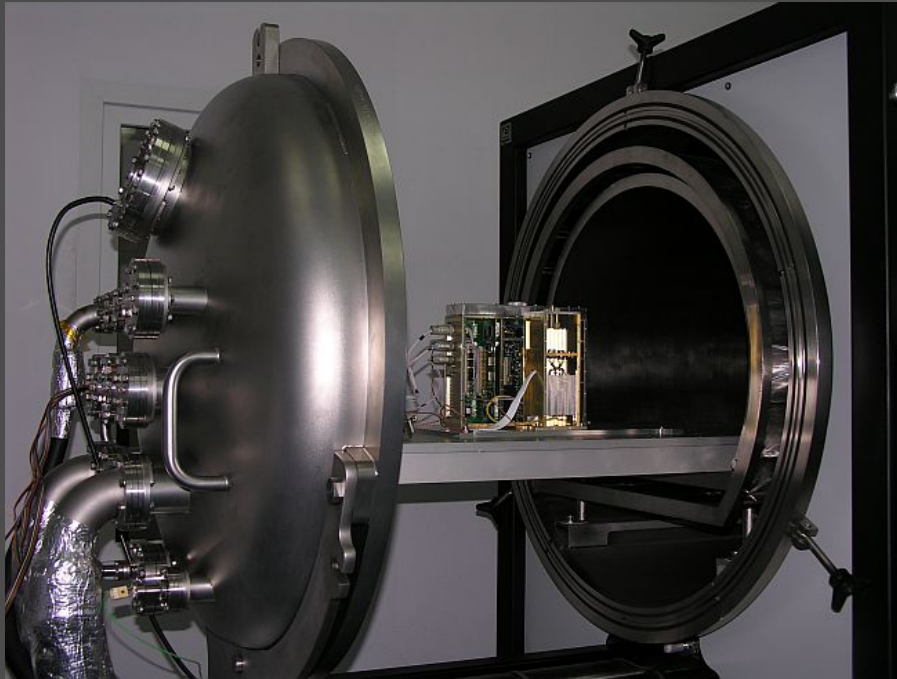
Aeronautical Research and Test Institute in Czech Republic Praha 19.09- 22.09.2006



We've carried out the sequence of tests preparing the device for the start.

Sphinx passed all examinations positively

SphinX thermo-vacuum test



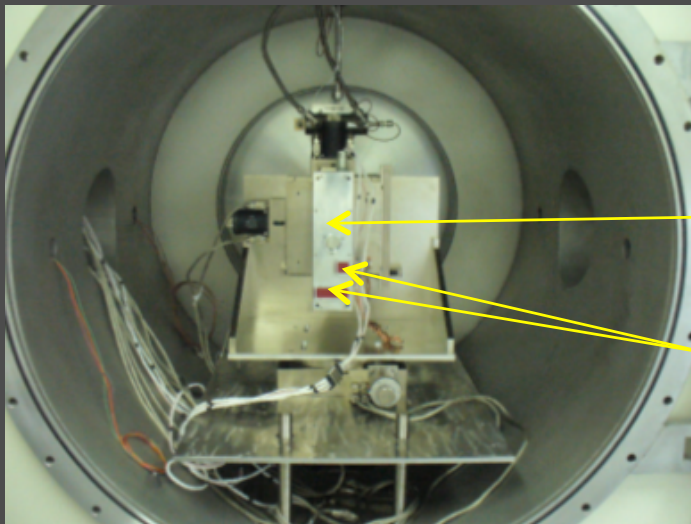
In Space Research Center in Warsaw we've done termovacum test. The range of temperature was from $\sim -20^{\circ}\text{C}$ to $\sim 50^{\circ}\text{C}$. Tests continued in three days. SphinX was ready to go.

SphinX calibration

XACT Palermo – October 2007

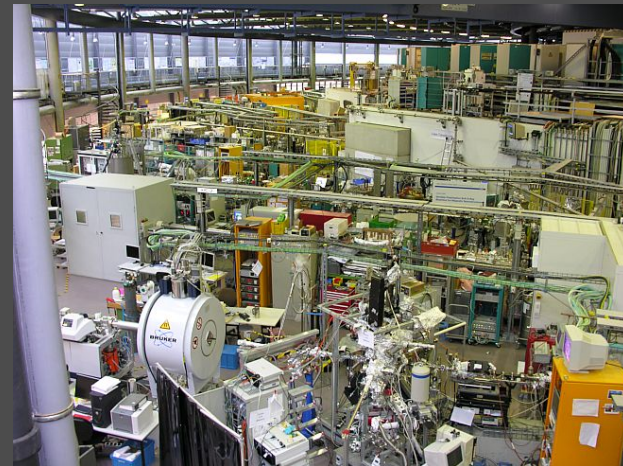


BESSY Berlin – February/March 2008



SphinX

Safety
Covers



In the October of 2007 in Palermo at XACT facility calibration of SphinX in X-rays was made. At the turn of February and March calibration of detectors in BESSY synchrotron has been performed.

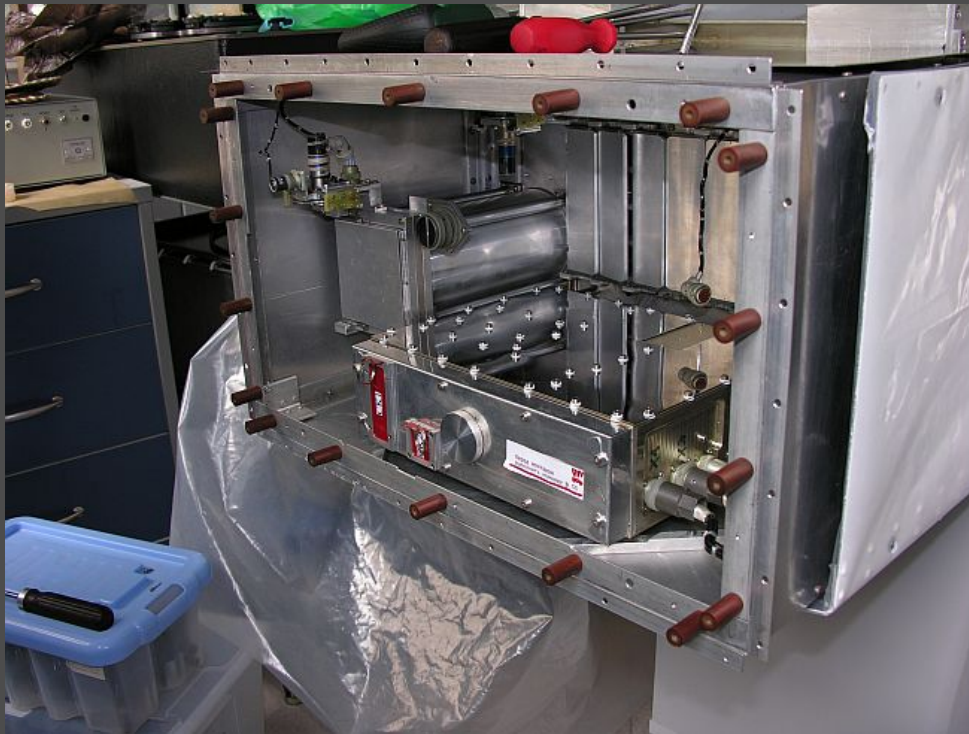
December 09-12, 2008 The Second Coronas- Photon and SphinX Workshop

SphinX- assembly and justification

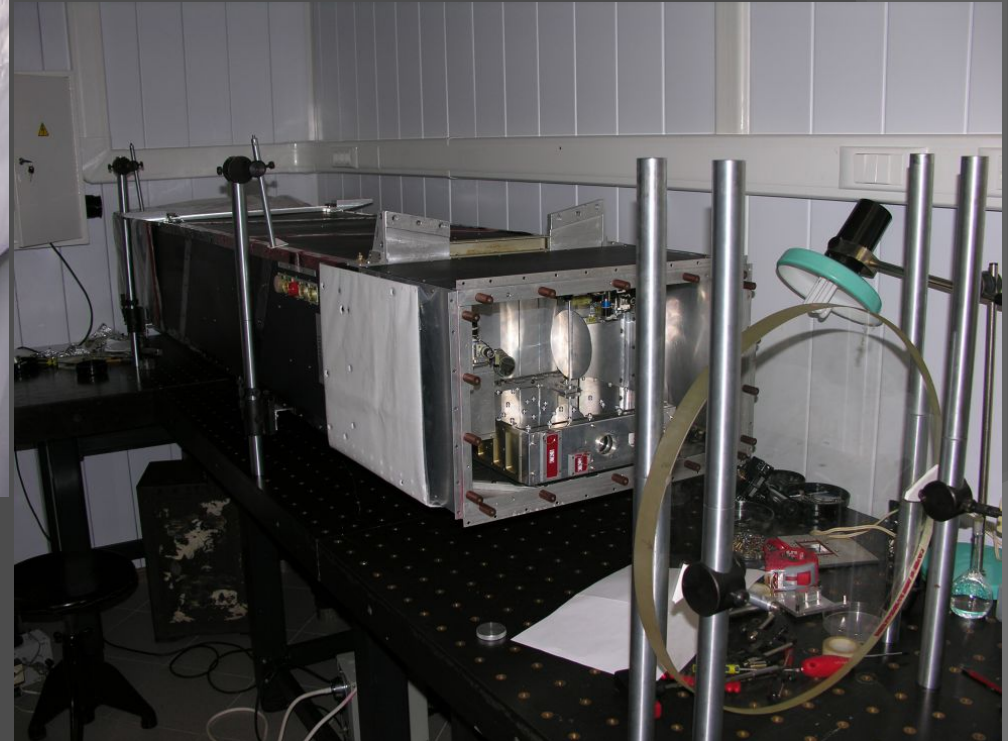
FIAN 24.08-28.08 2008

Justification SphinX

The Accuracy justification is 3' to the axis of the TESIS device.



SphinX into TESIS instrument
and
adjusted its position



SphinX – mechanical construction,
assembly with TESIS
and
final launch preparations

Thank you for your attention