



Greek Participation to SolO Development

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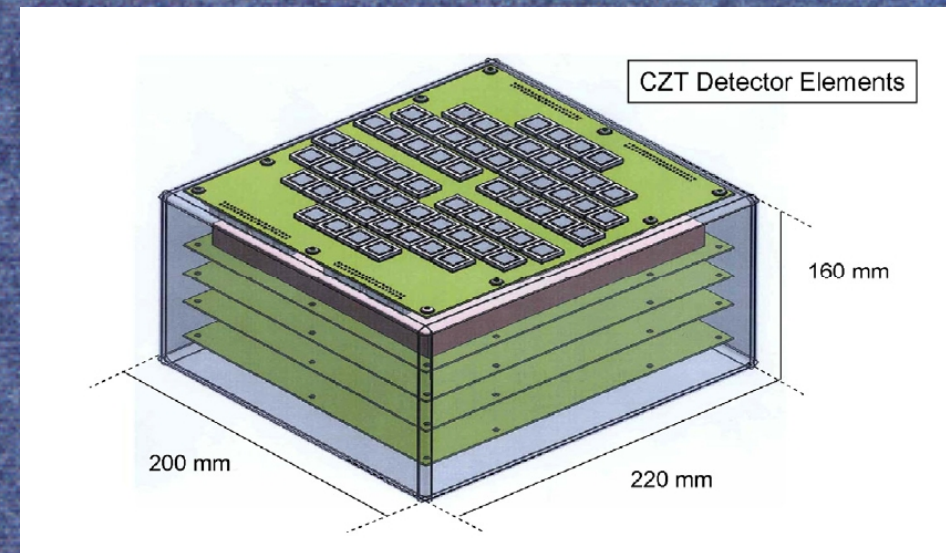
The Solar Orbiter Mission

- 6-years, M class mission
- Elliptical orbit around the Sun with perihelion 0.28 AU, inclination 30°
- Co-ordination with Solar Probe Plus
- Decision in October, launch in 2017



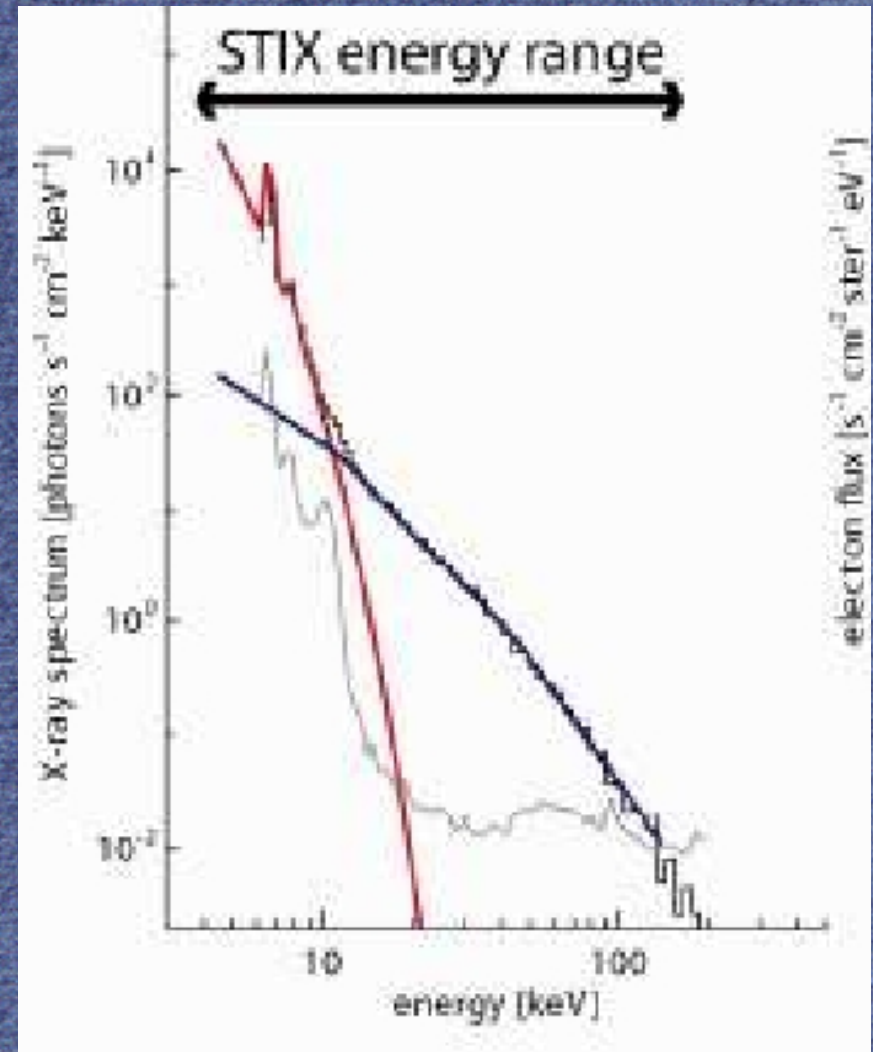
X-rays with STIX

Spatial Resolution	1100 km (1600km RHESSI)
Energy Range	4-150 keV
Energy Resolution	1-15 keV
Time Resolution	0.1 s
Angular Resolution	7 arcsec
Field of View (location/imaging)	$2.5^{\circ}/1.5^{\circ}$ (FWHM)
Detector array	64 subcolimators
Image placement accuracy (location/ imaging)	1-3 arcmin / ~4 arcsec



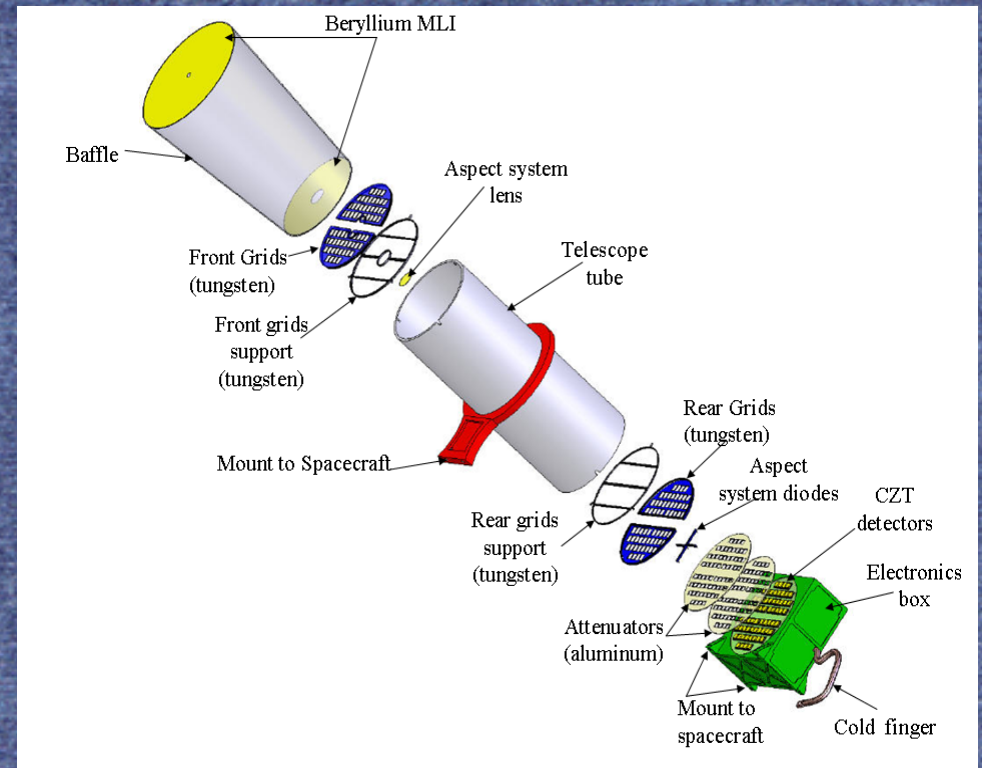
The need for attenuators

- Dynamic Range Ratio of X-ray flares: 10^5
- Ratio of fluxes between 3 and 150 keV up to 10^7 - 10^9
- Additional Dynamic Ratio of 20 because of SolO's orbit



Attenuators' design

- Optical Design
- Structural Design
- Thermal Conductivity
- 2 Moving mechanisms (shape memory alloy & piezoelectric):
 - ✓ Gain Redundancy
 - ✓ Check Reliability



The collaboration

Work Package	Project Member
Overall management	M. Georgoulis, T. Katsiyannis, C. Gontikakis
Design of disk profile	T. Katsiyannis, M. Georgoulis
Static prototype construction	T. Chondros (U. of Patras)
Insertion mechanism design	T. Chondros
Prototype construction	T. Chondros
Prototype testing	T. Chondros
Delivery of functional prototypes	M. Georgoulis, T. Katsiyannis, T. Chondros