

Status Vienna

Videoconference

Sept. 24th 2009

Status report

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2 works should be performed in Japan:

1. Energy linearity

testing with sources or foils

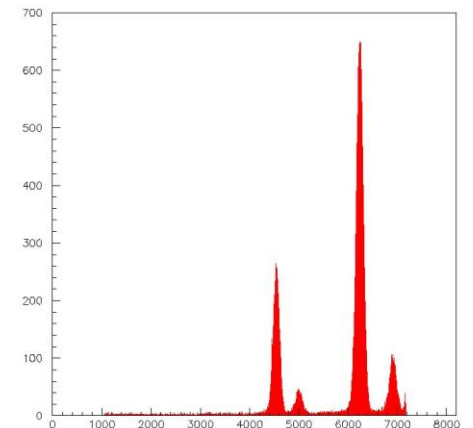
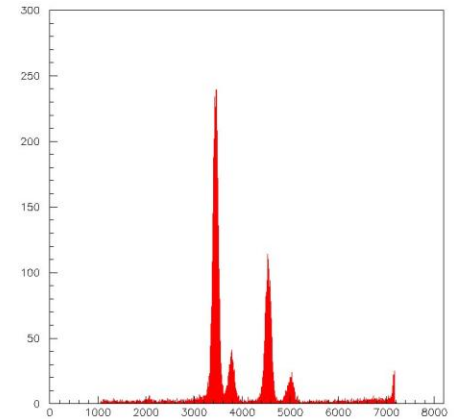
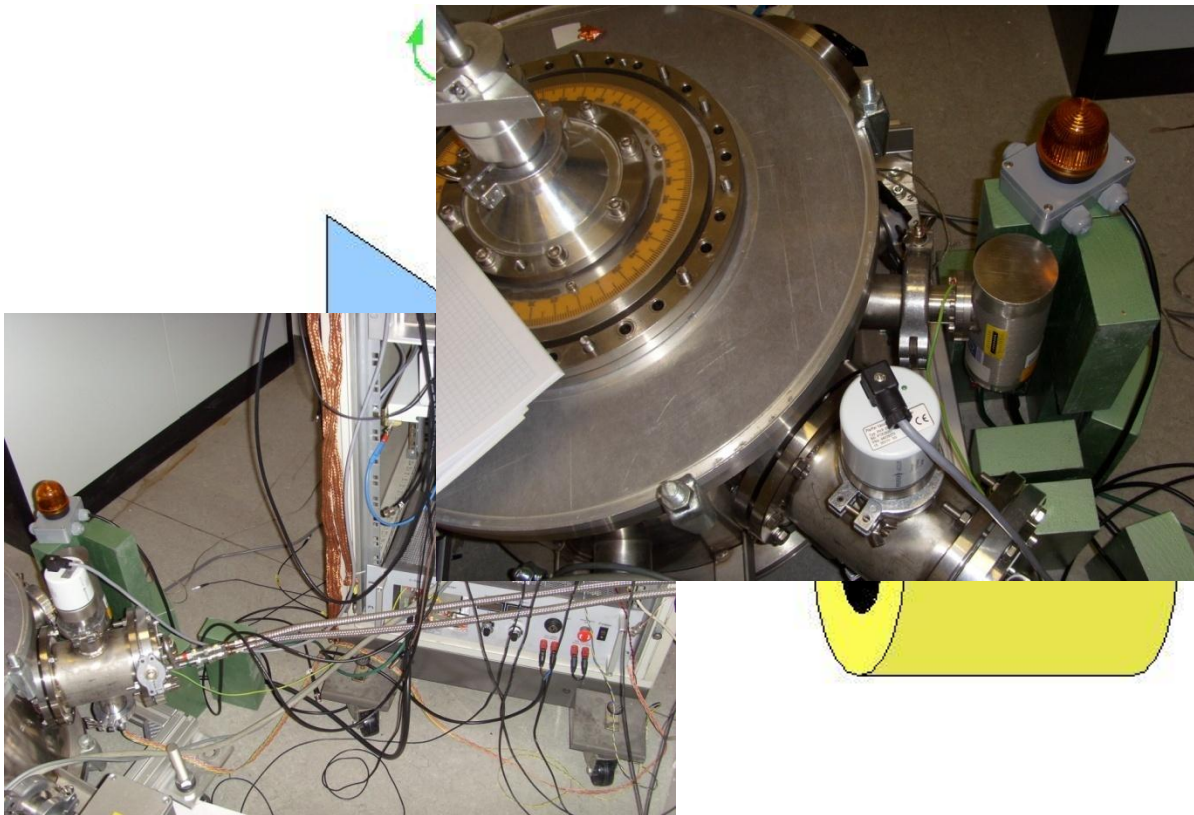
2. Time resolution

testing with PIPS

Energy linearity

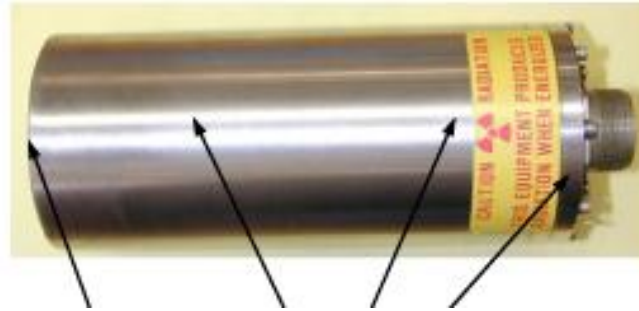
In Vienna: X-ray tube and foils (at least Ti and Cu)

Bring to Japan?



X-ray tube

Top



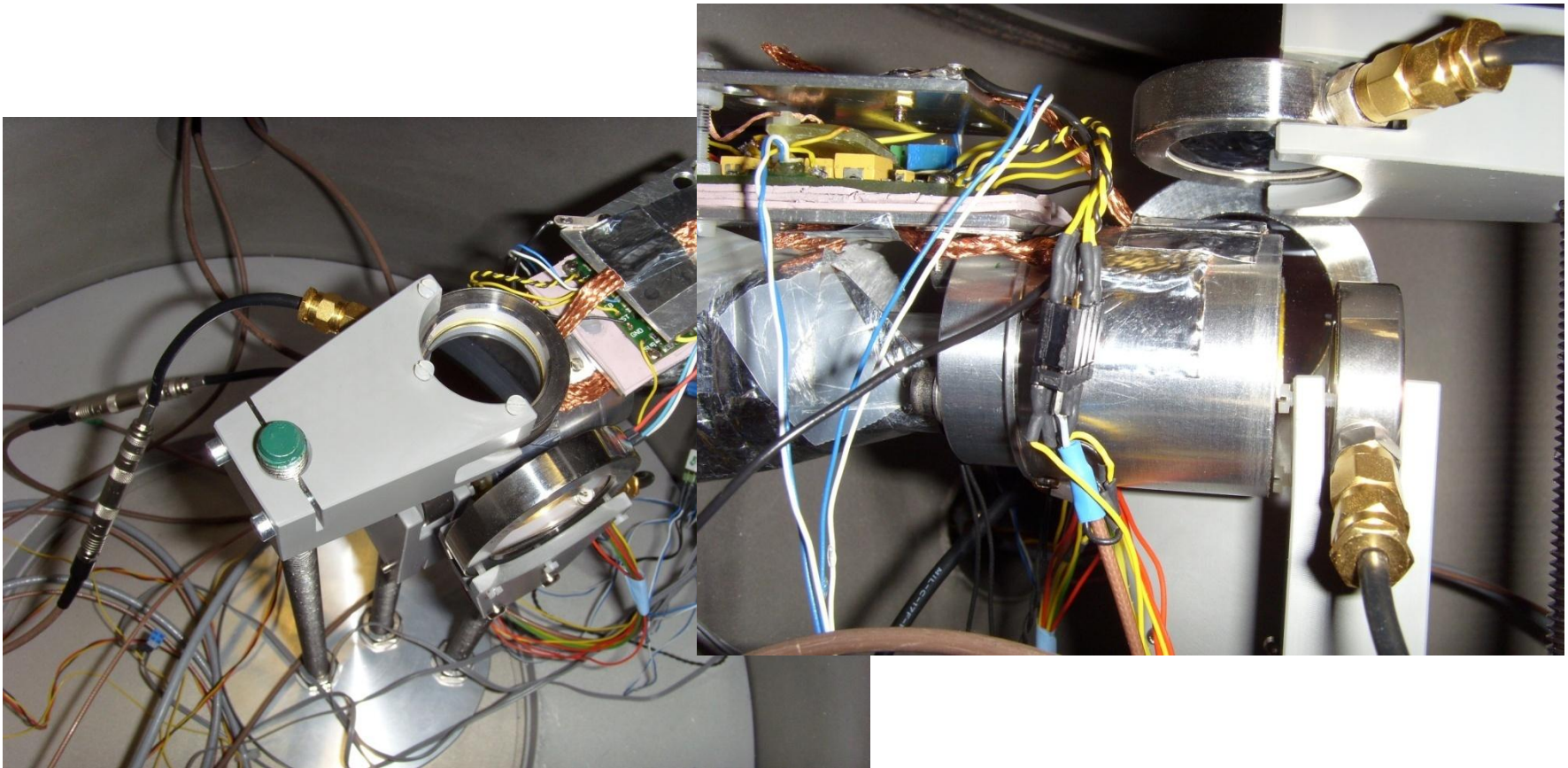
Height: ~15cm
Diameter: ~7cm
Flange: 50
Tungsten wire
Beryllium window

Bottom



Time resolution

Using PIPS -> bring to Japan?

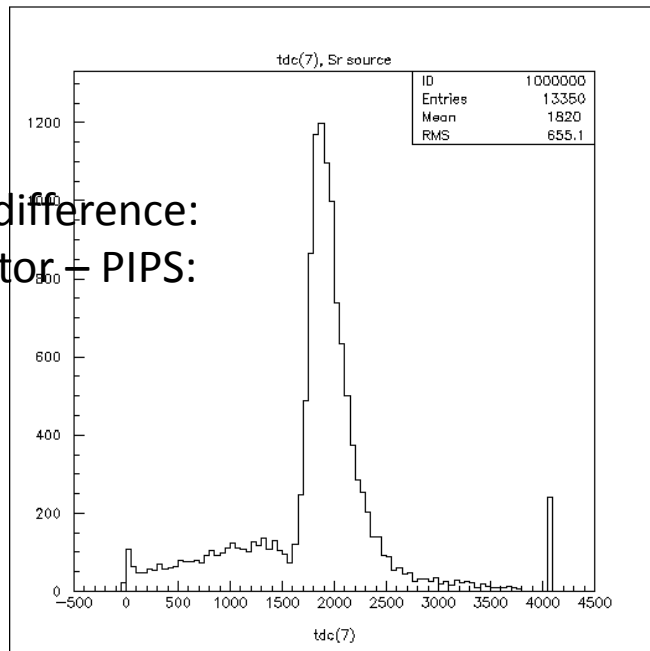


TDC and PIPS

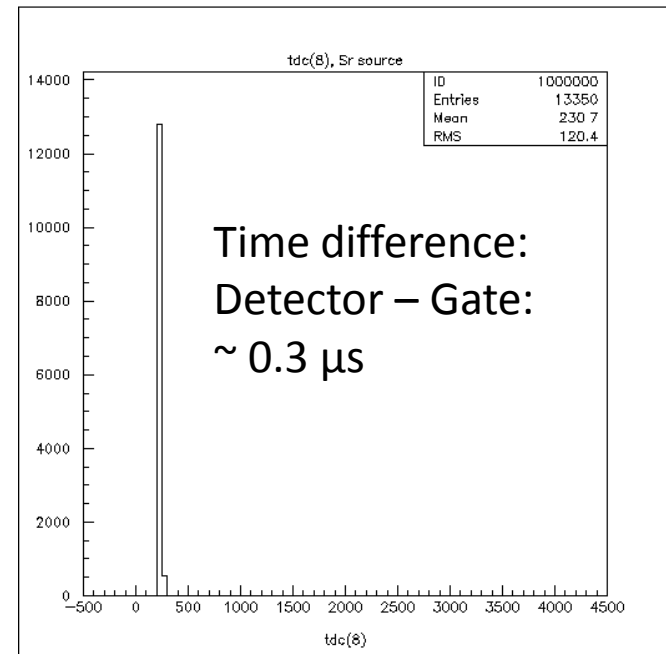
Together with PIPS, the time resolution of the SDD can be measured via a TDC-system.

Data from Amptek (SiLi), Sr source

Time difference:
Detector – PIPS:
 $\sim 1 \mu\text{s}$



Time difference:
Detector – Gate:
 $\sim 0.3 \mu\text{s}$



Current measurements

- Running at the moment – evaluation next week
- Temperature dependence
- SUB voltage ***INSIDE*** adjustable
- Influence of Control-Box of CAEN amplifier
- Current SUB value: -2V – seems to be not good, but preamp (24V) does **not** work at -6.5V SUB and 150K
- External power supply is in work

outlook

- Housings are ready -> Starting with measurements of remaining 4 SDDs on Monday
- Broken preamp from Japan: temperature sensor destroyed it
- -> Temperature sensors on preamps?
- Bringing x-ray tube and/or PIPS?