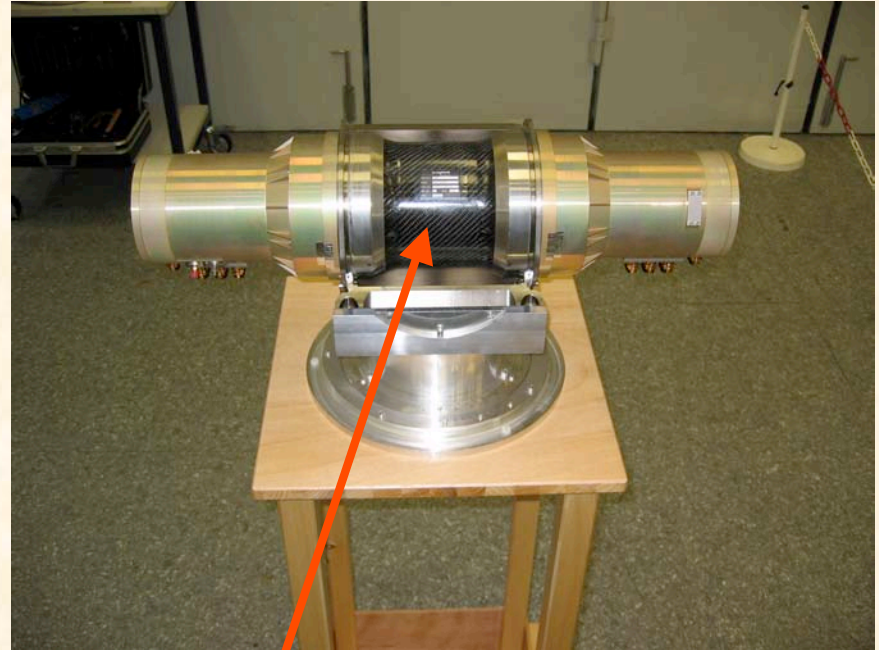
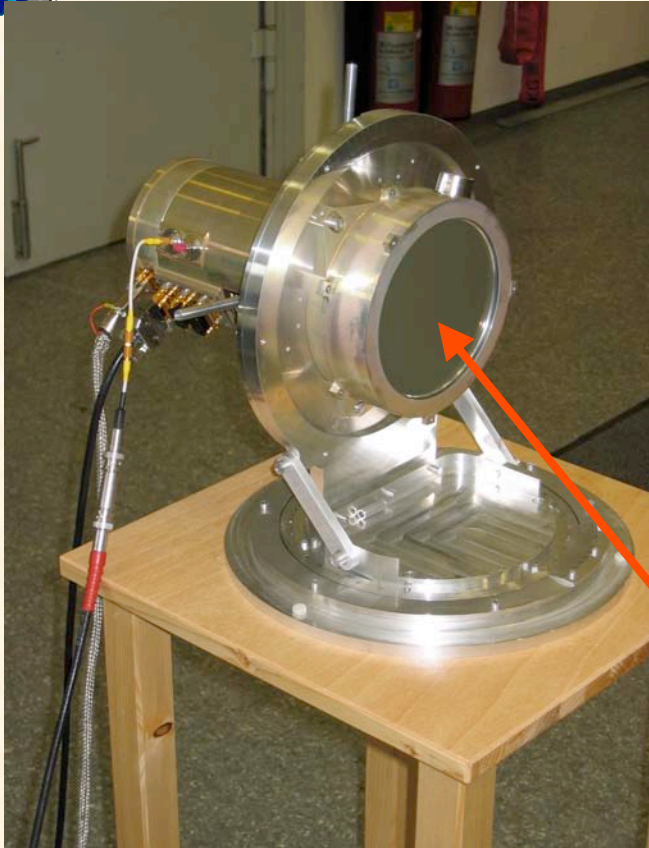


GBM Status – Detectors & PSB

- ✦ 2 EQMs have been delivered to MSFC on June 9
 - one NaI detector
 - one BGO detector
- ✦ 4 FM-NaI detectors were delivered
 - to MPE for calibration
 - afterwards in July to MSFC
- ✦ 3 FM-NaI detectors were shipped to MPE on August 22
 - these detectors are being calibrated in the moment
- ✦ the PSB was shipped to MSFC on August 26
- ✦ the remainders of the detectors
 - 6 NaI detectors
 - 2 BGO detectors

have been manufactured
(vibration & TV tests performed in the moment)

Engineering-Qualification Models at MPE



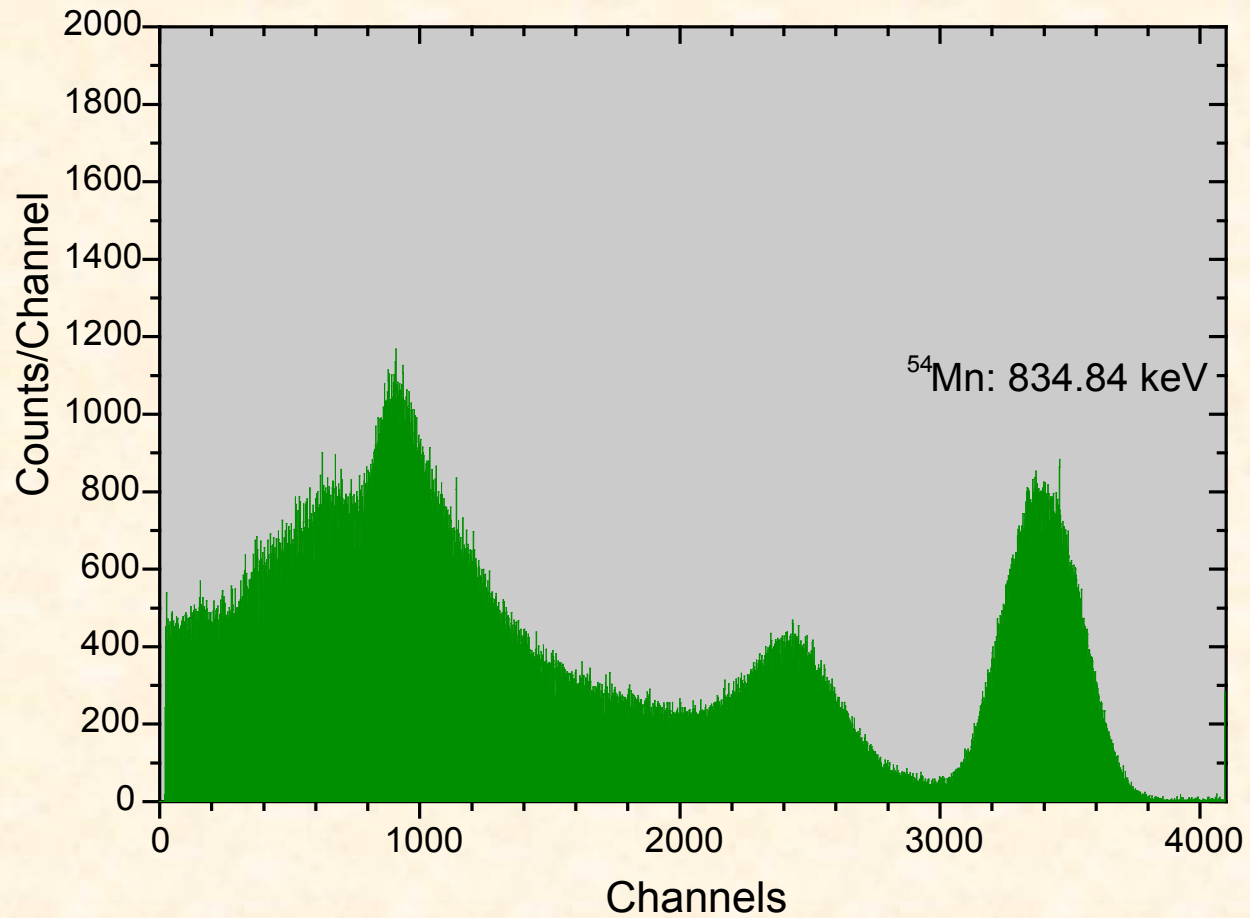
NaI

BGO



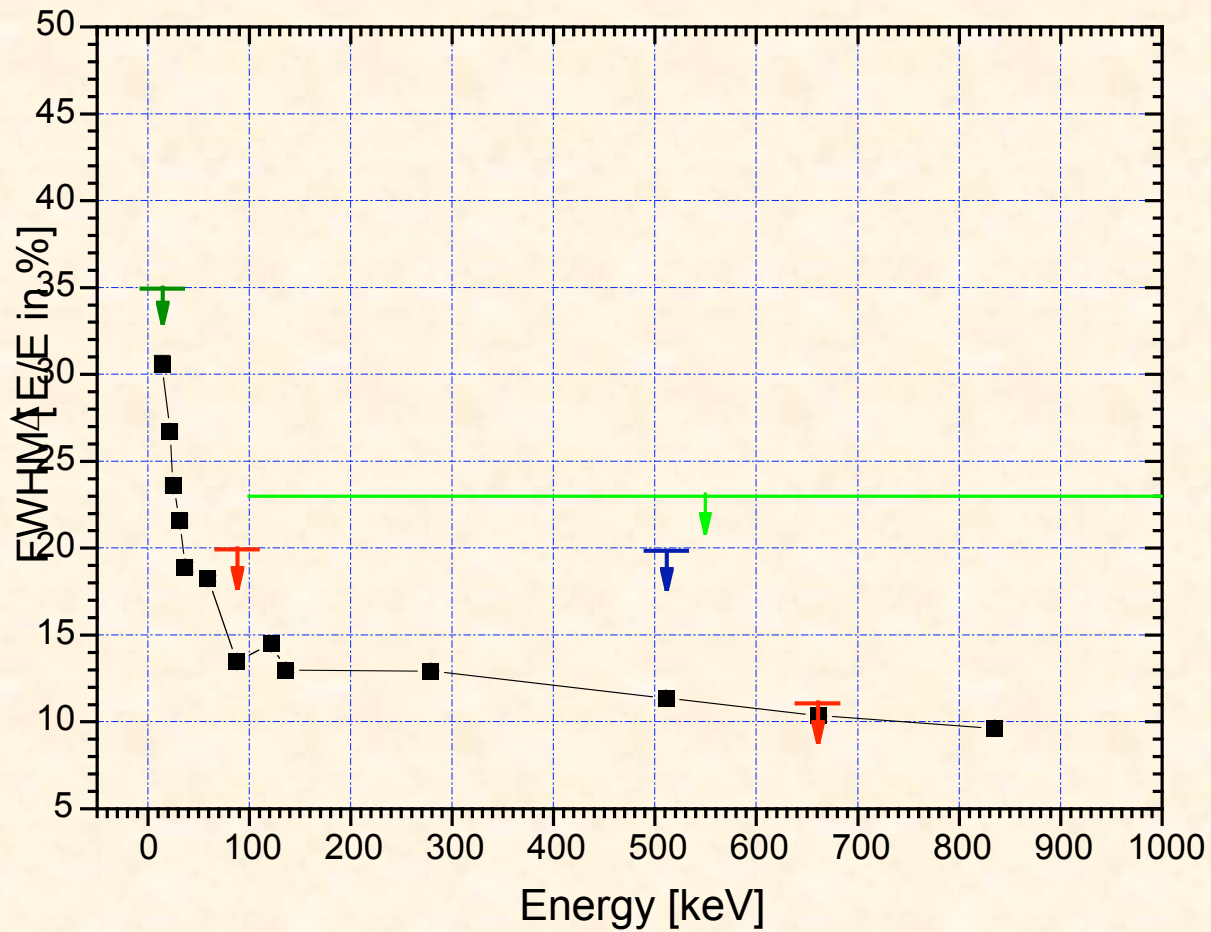


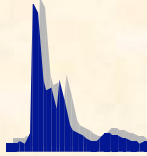
★ Spectrum of ^{54}Mn source



Energy Dependence of FWHM (NaI-EQM)

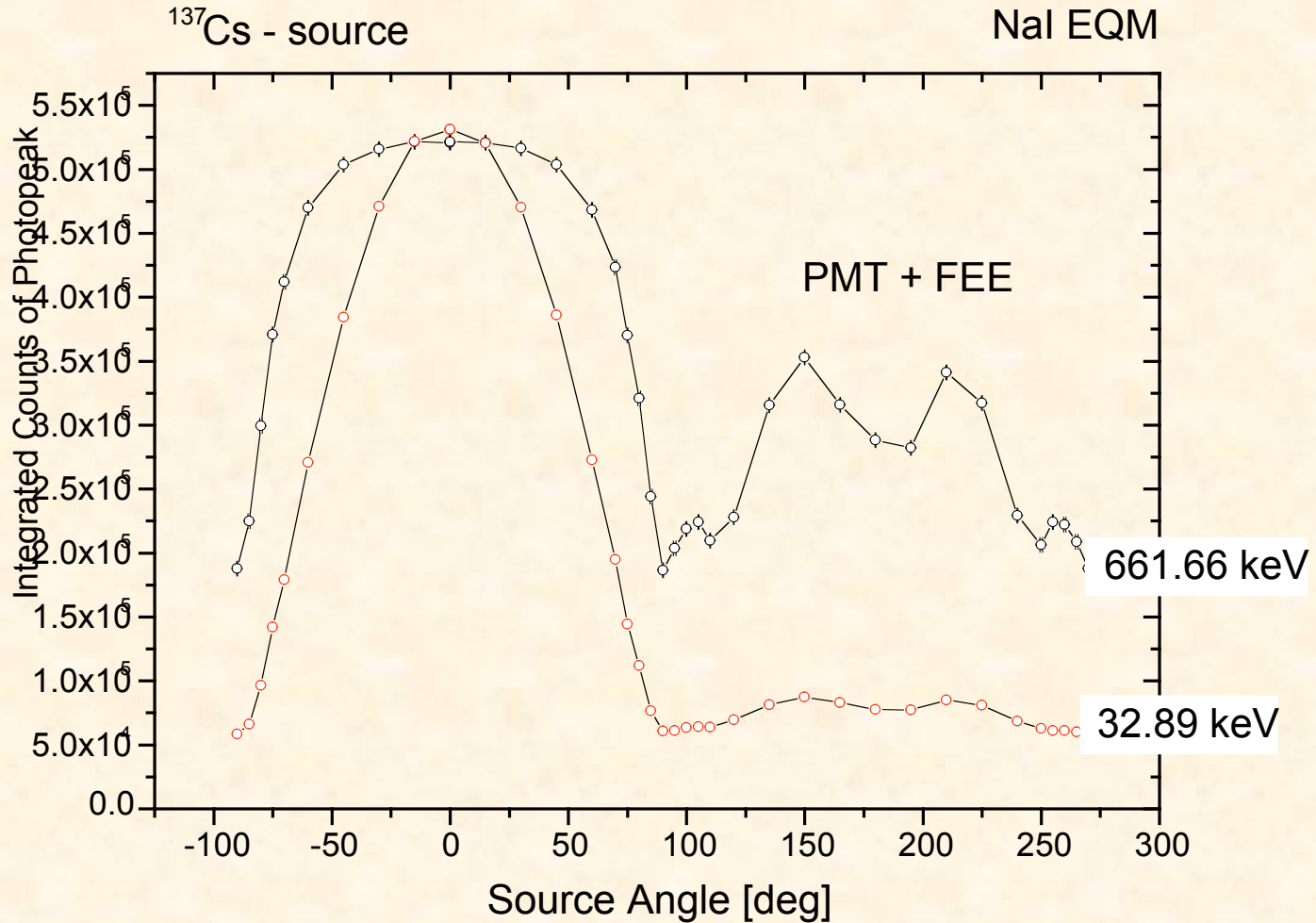
- NASA top level
- Level-1 requirement
- Level-2 requirement
- Goal





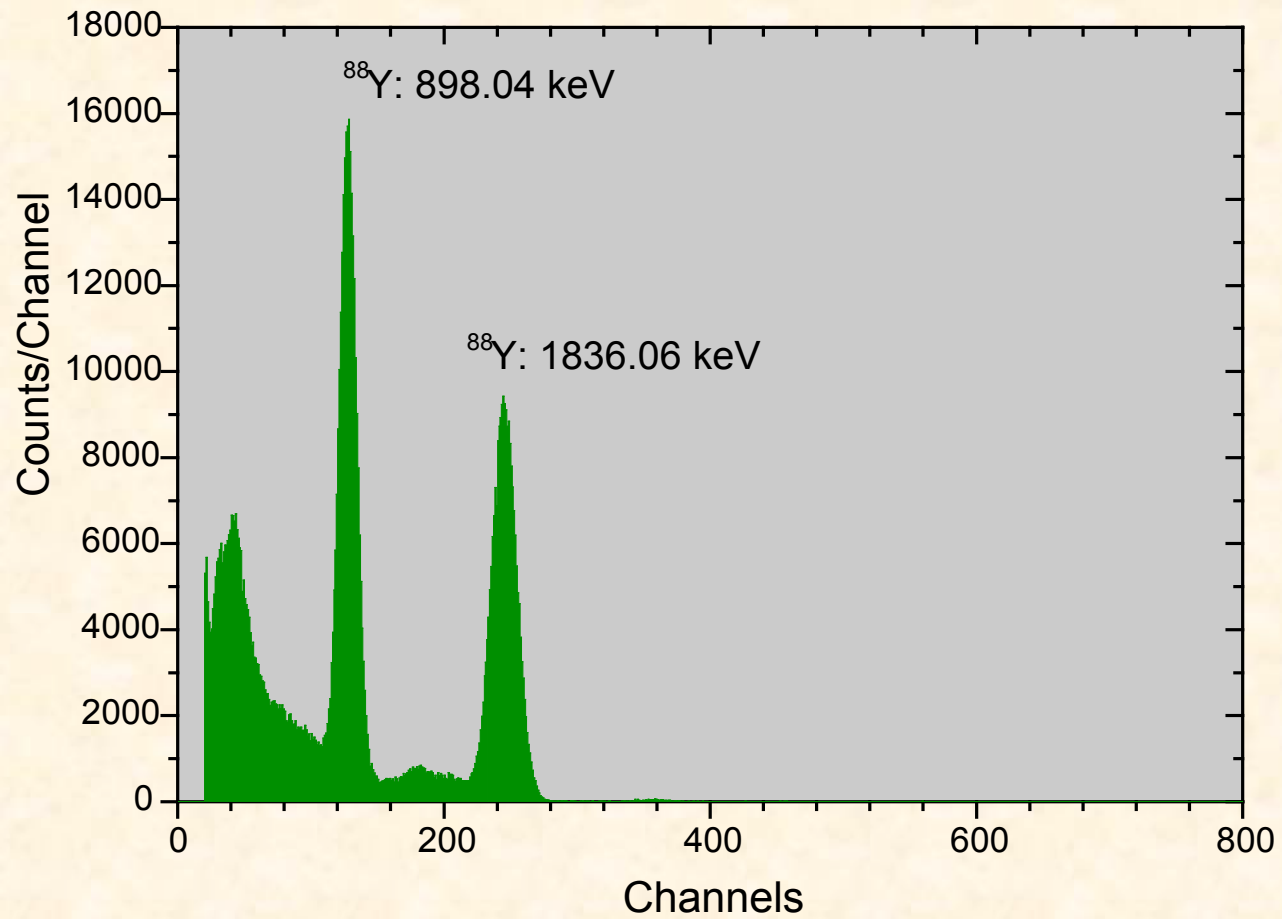
Nal off-axis response

★ ¹³⁷Cs source



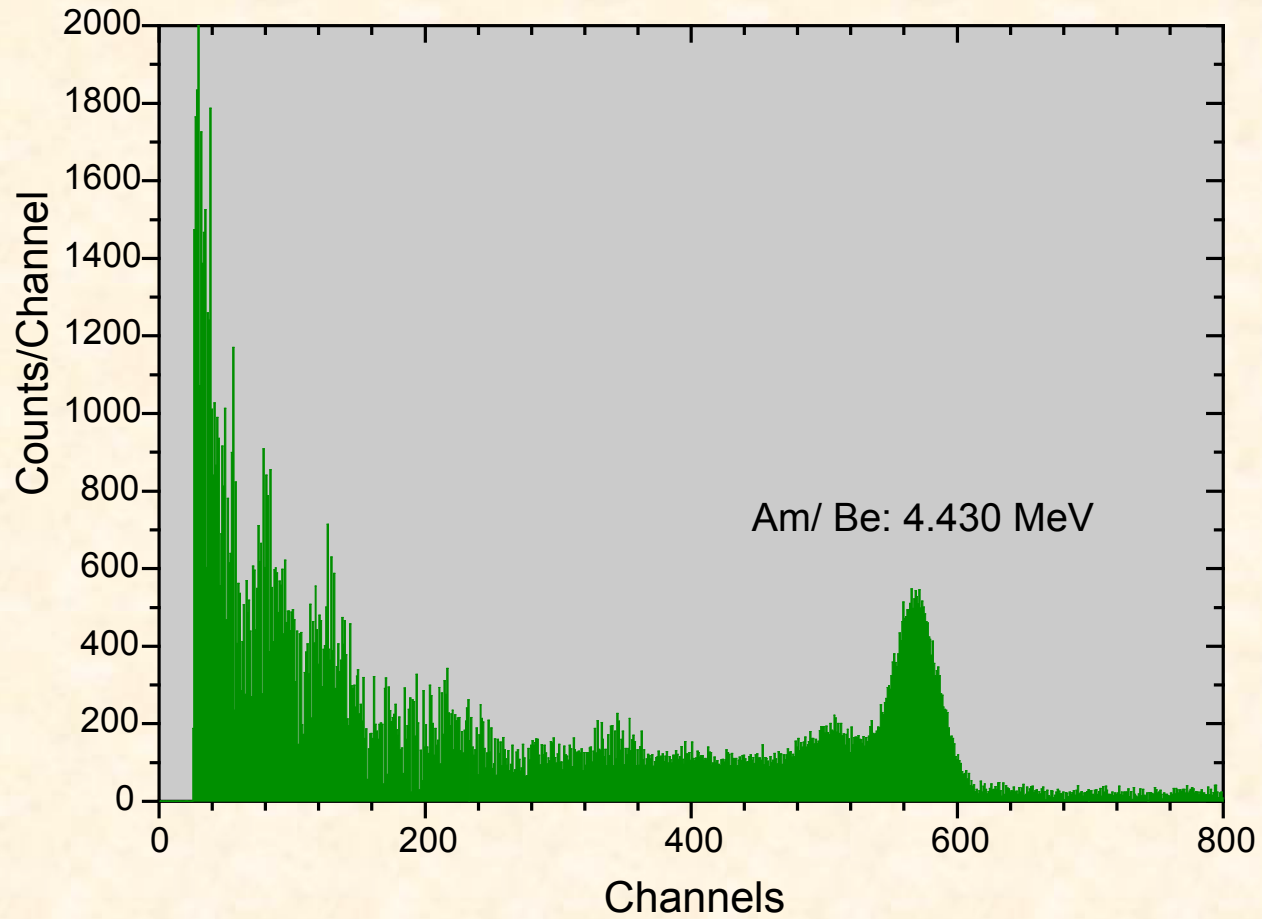


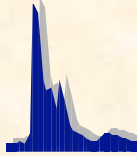
◆ **Spectrum of ^{88}Y source**





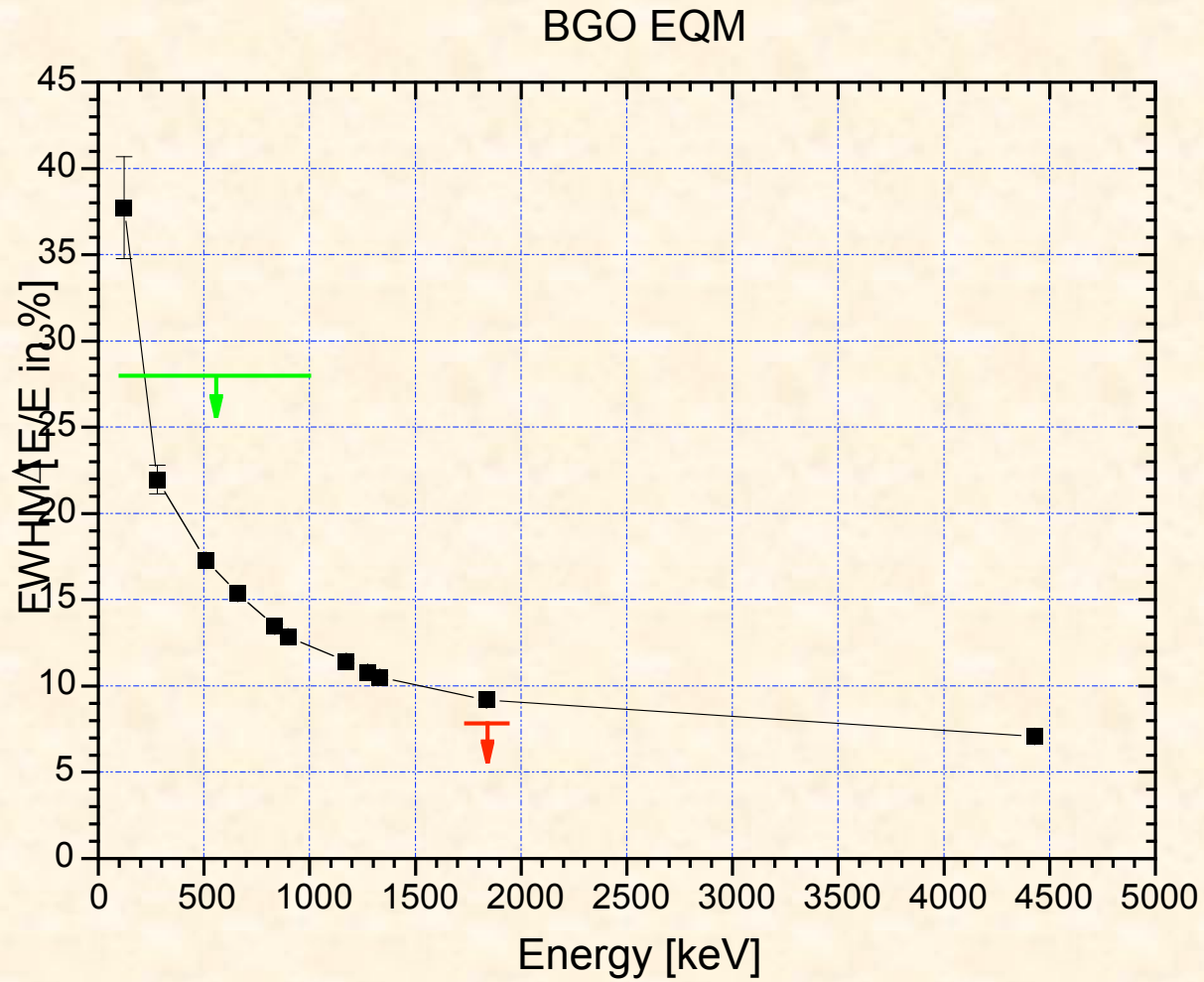
✦ Spectrum of Am/Be source

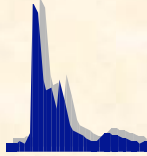




BGO FWHM dependence

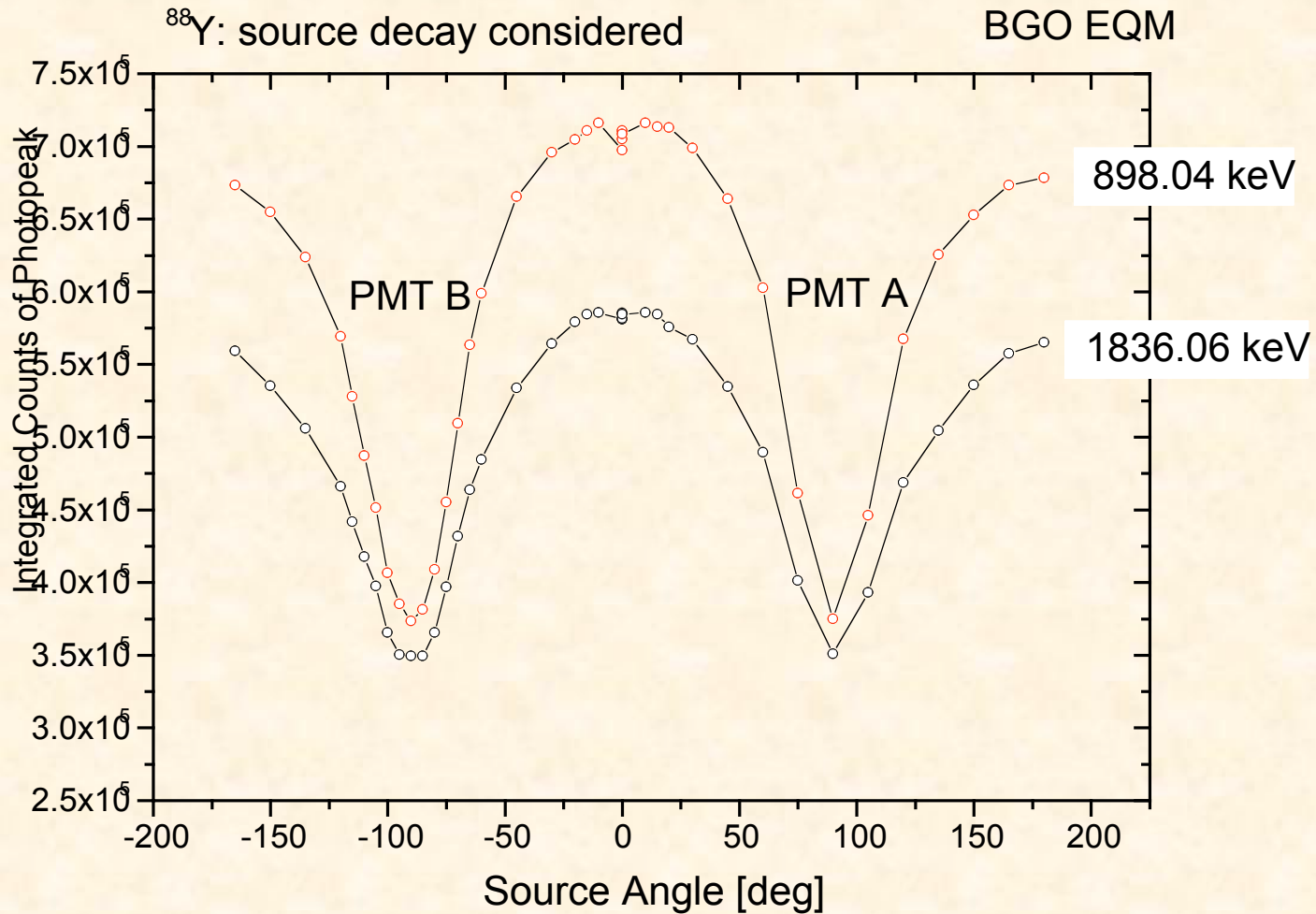
- NASA top level
- Level-1 Requirement
- Level-2 Requirement
- Goal

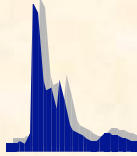




BGO off-axis response

★ PMT A: HV=859 V, PMT B: HV=838 V

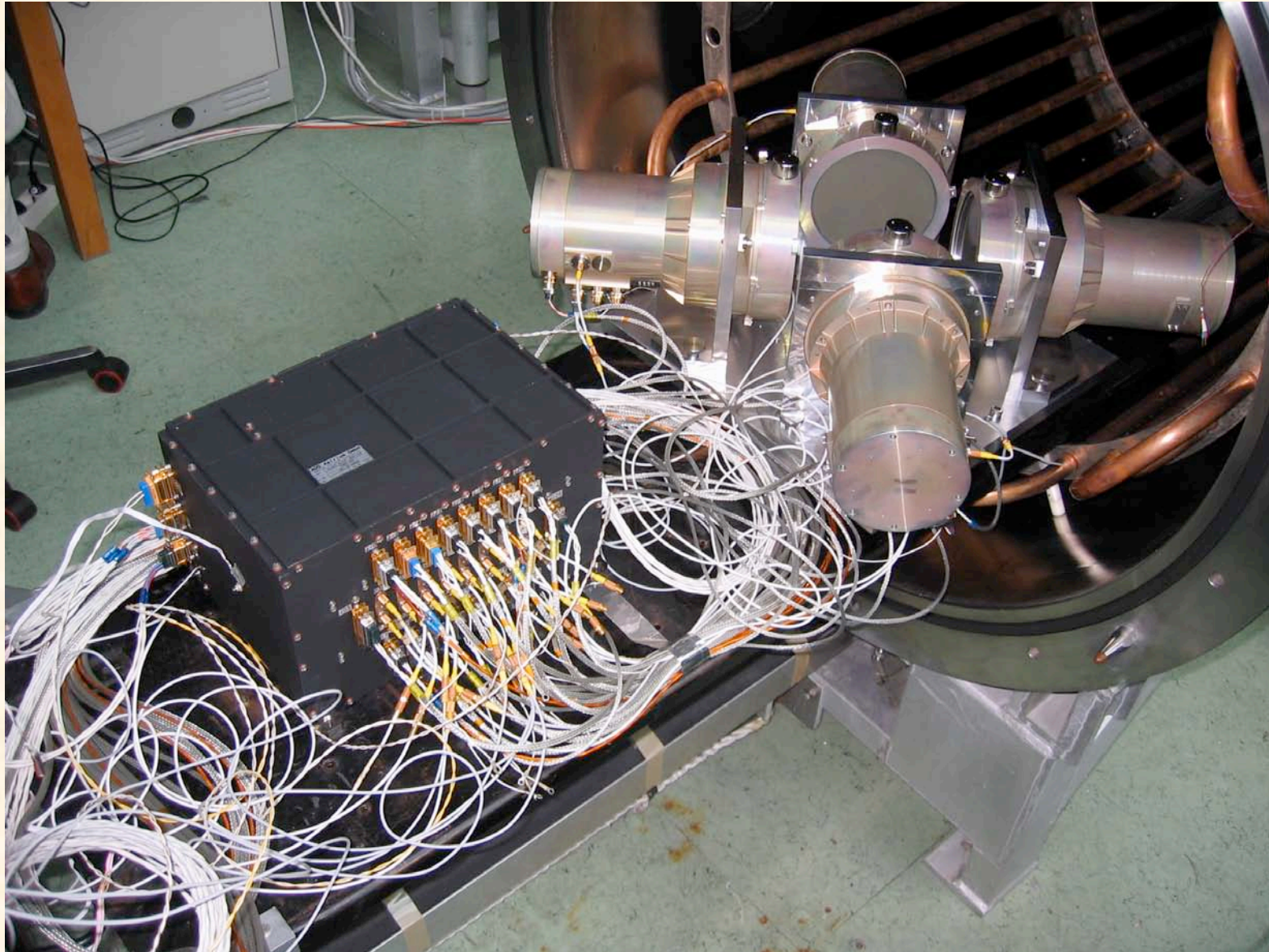




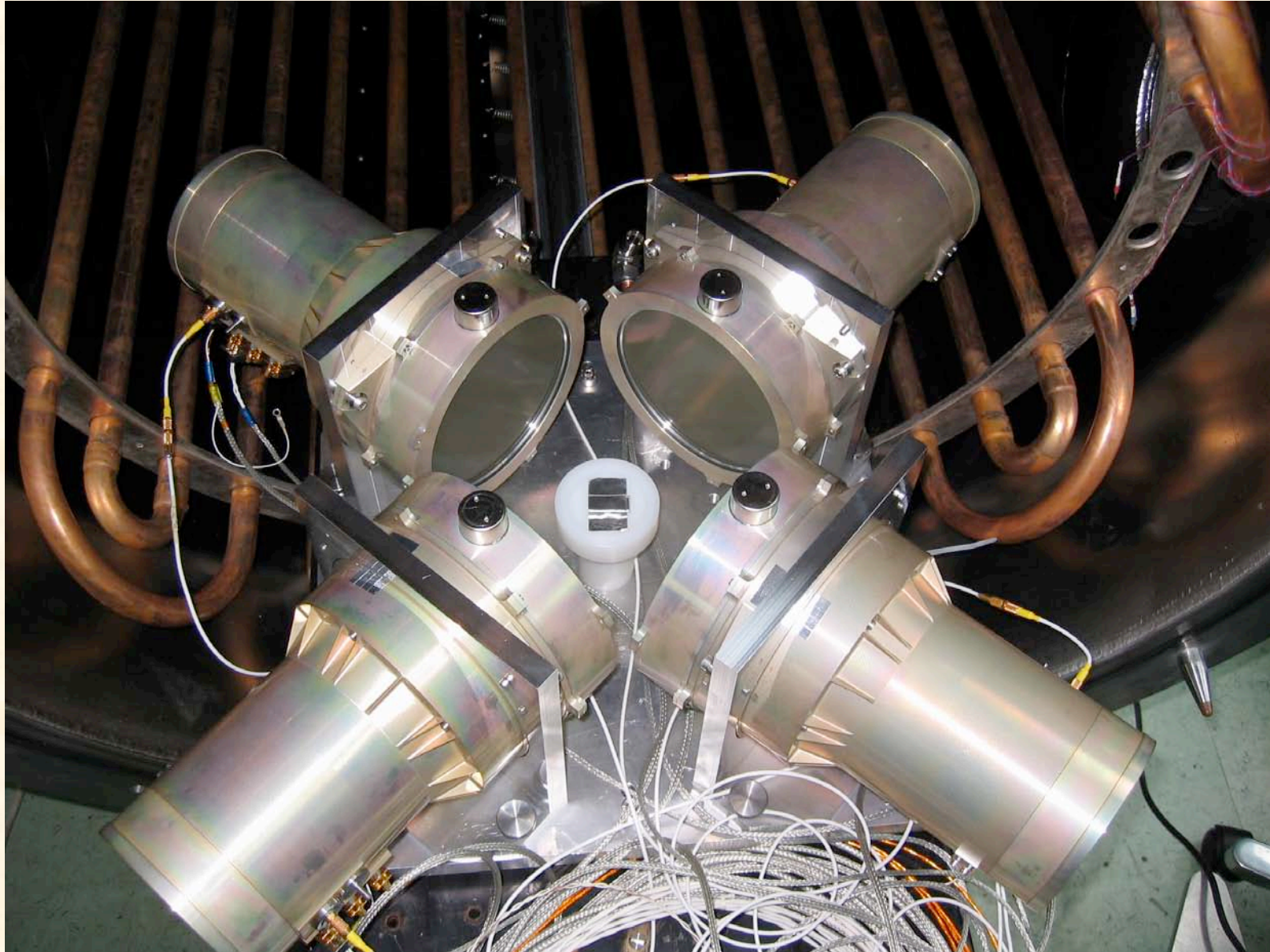
Summary of Activities

- ✦ **measurements with 4 NaI detectors at a synchrotron (BESSY in Berlin)**
 - from 10 keV – 60 keV
 - all planned measurements were performed (~3000 spectra taken)
 - data analysis in progress
- ✦ **performance of a TV test with the PSB and 4 NaI detectors at MPE**
 - aim of test: to check the function of the HV supply in vacuum
 - one temperature cycle only (from -15° C to +45° C)
 - achieved pressure: $\sim 2 \cdot 10^{-5}$ Torr
 - nearly the full load was applied with a load simulator
 - ✦ detector LV & HV
 - ✦ operational and survival heaters
 - the detector function was tested by measuring
 - ✦ a spectrum of a ^{137}Cs source
 - ✦ HV values, power consumption
 - the function of the PSB was checked by measuring all relevant parameters
 - ✦ voltages, currents
 - ✦ power consumption

PSB & 4 NaI-detectors during TV Test at MPE



The 4 NaI-detectors during TV Test at MPE



^{137}Cs spectrum during TV test

