

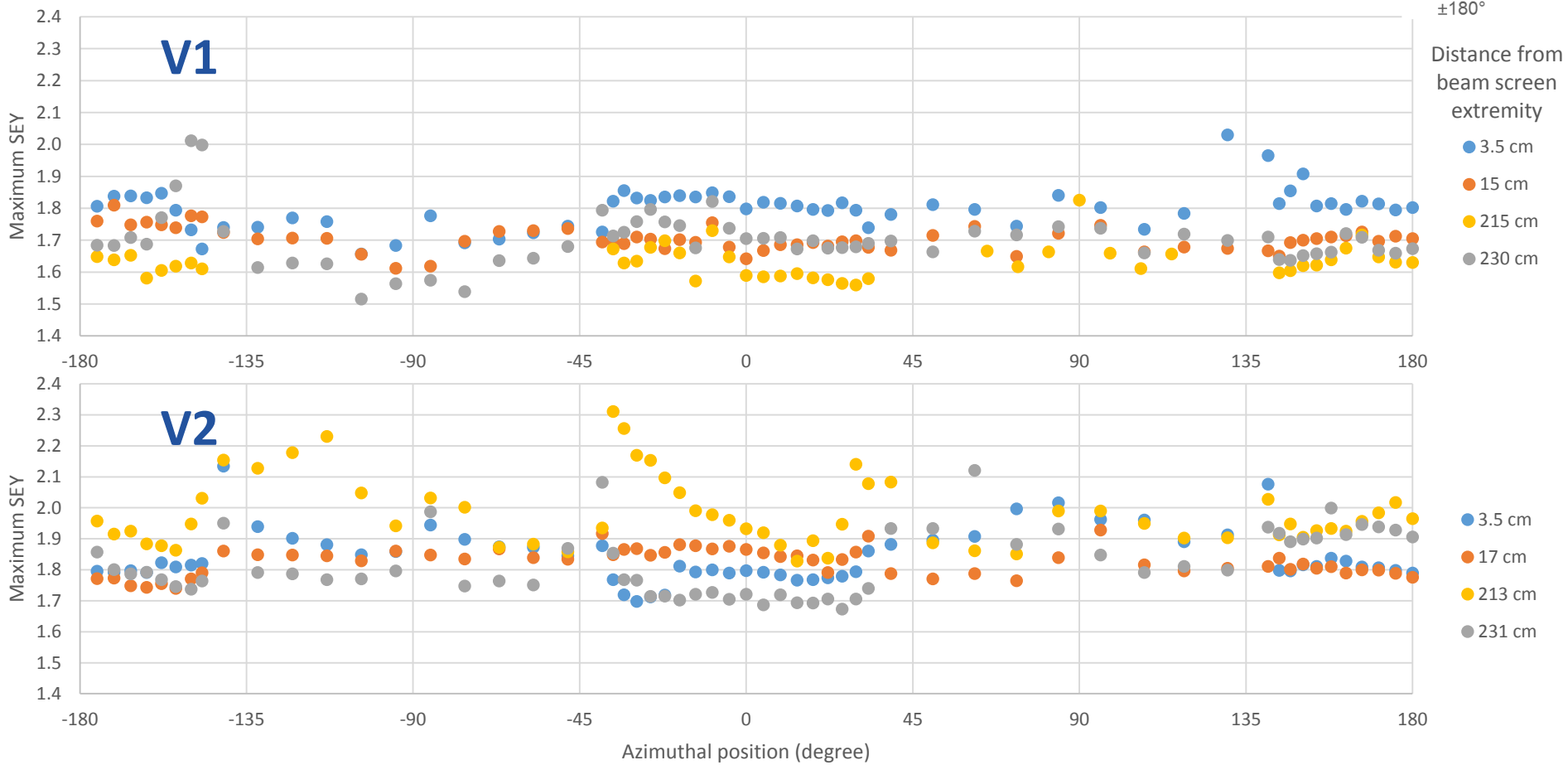
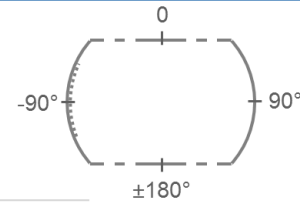
# Conditioning : update on laboratory measurements

## A31L2 Beam screen



Update : V2 beam screen measurements

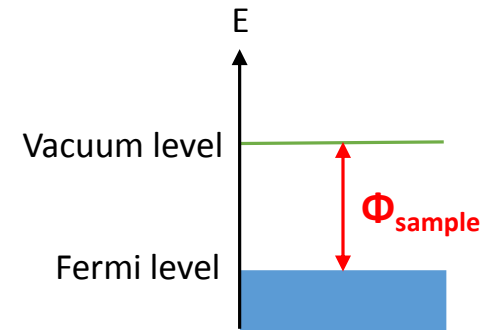
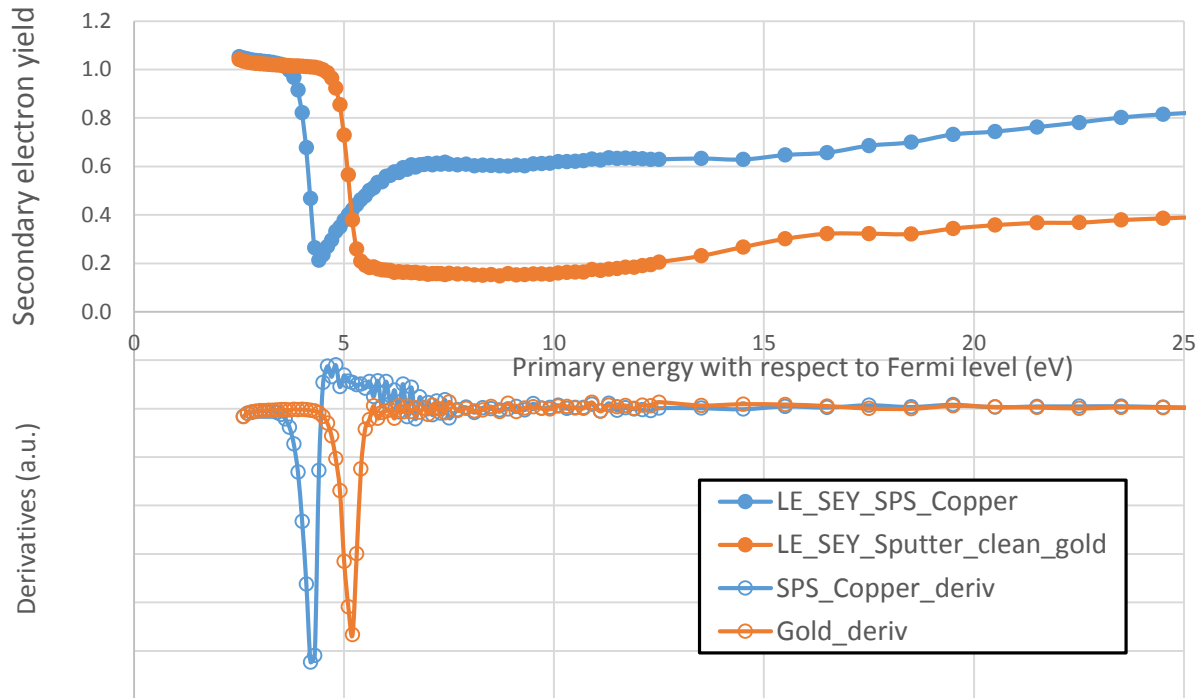
# A31L2 Beam screen



## V2 beam screen

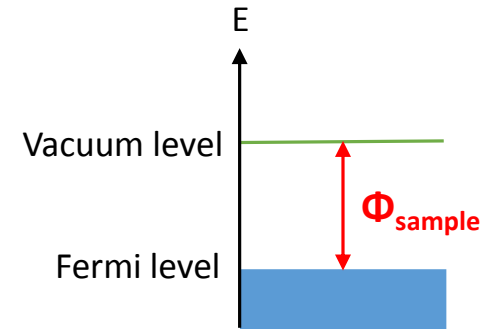
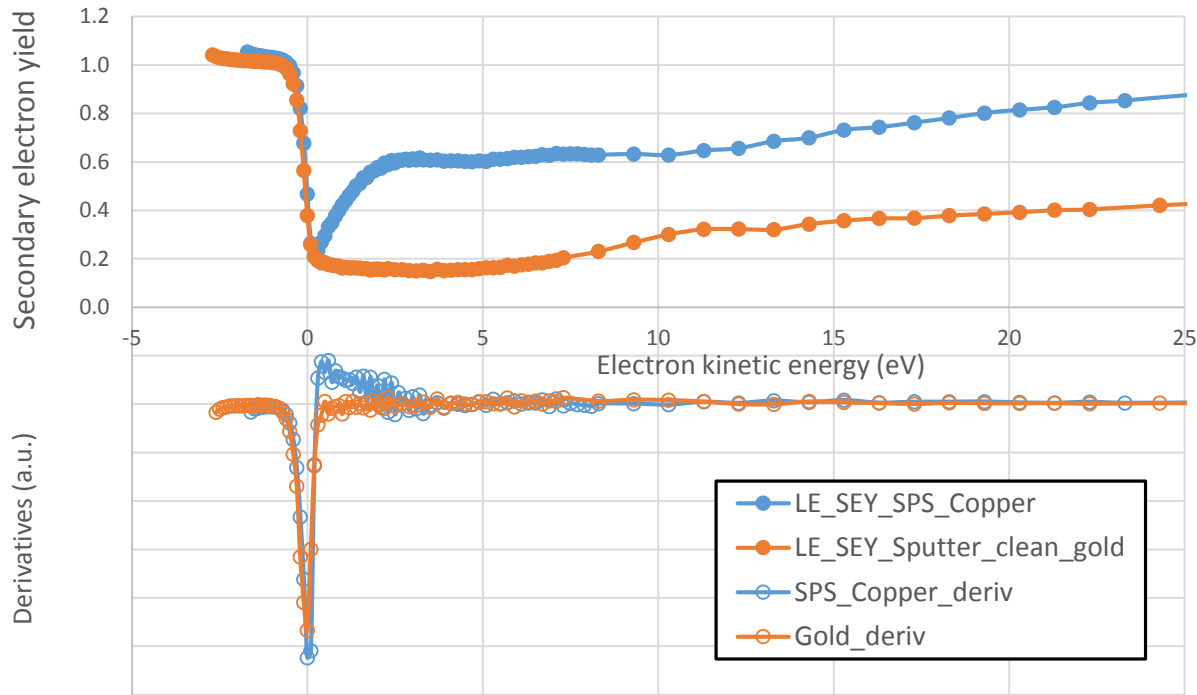
- 1 sample contaminated (high carbon content)
- No lower SEY on saw tooth side (effect of quadrupole?)

# Low energy measurement method



- 0 eV = sample Fermi level
- Drop shape : convolution of step function (at  $E = \Phi_{\text{sample}}$ ) with e-gun energy dispersion profile
- Energy scaling : reference = Au sputtered clean ( $\Phi_{\text{Au}} = 5.2 \text{ eV}$ )

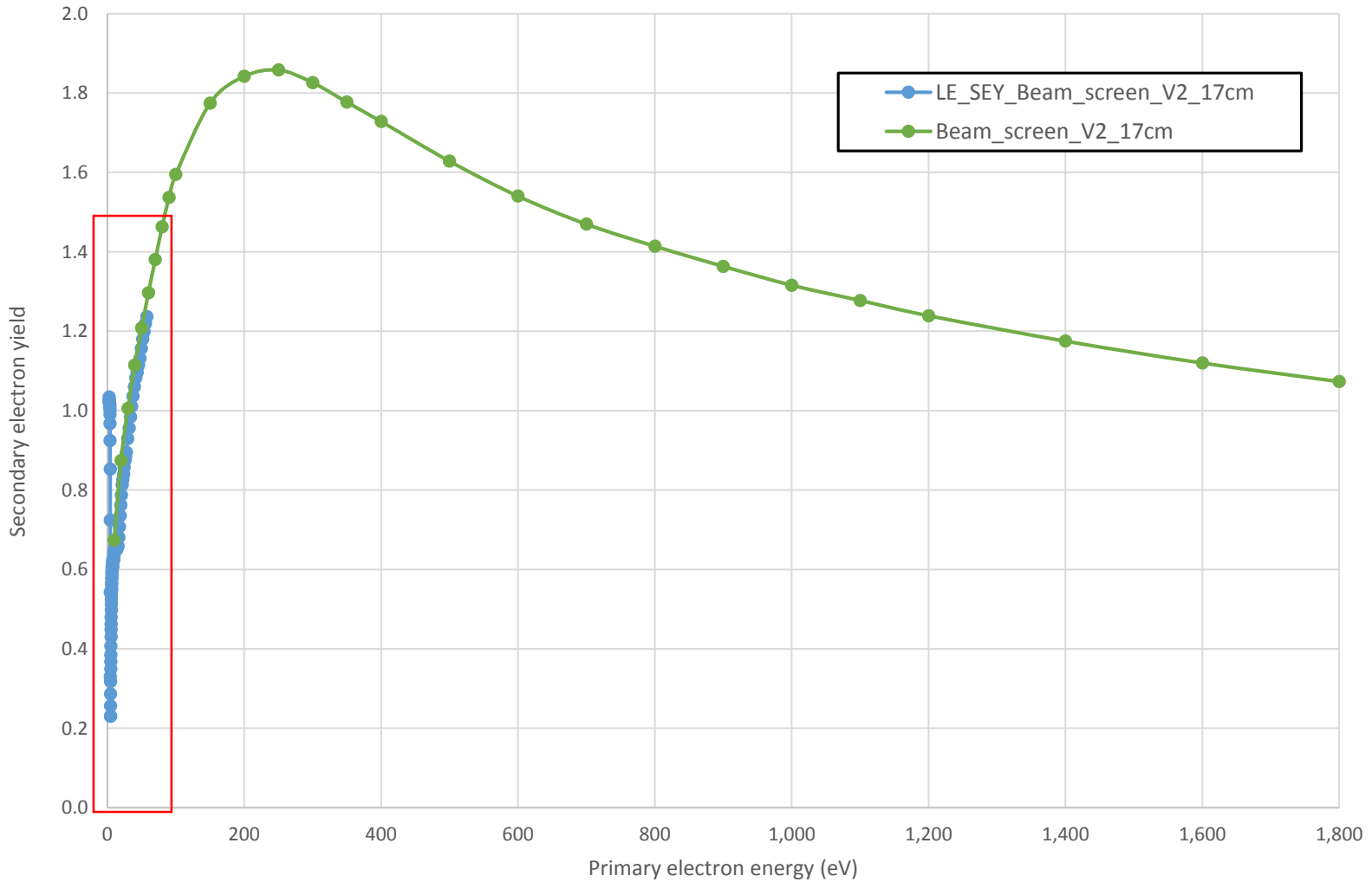
# Low energy measurement method



- $E_k = 0 \text{ eV} \rightarrow$  vacuum level of the sample

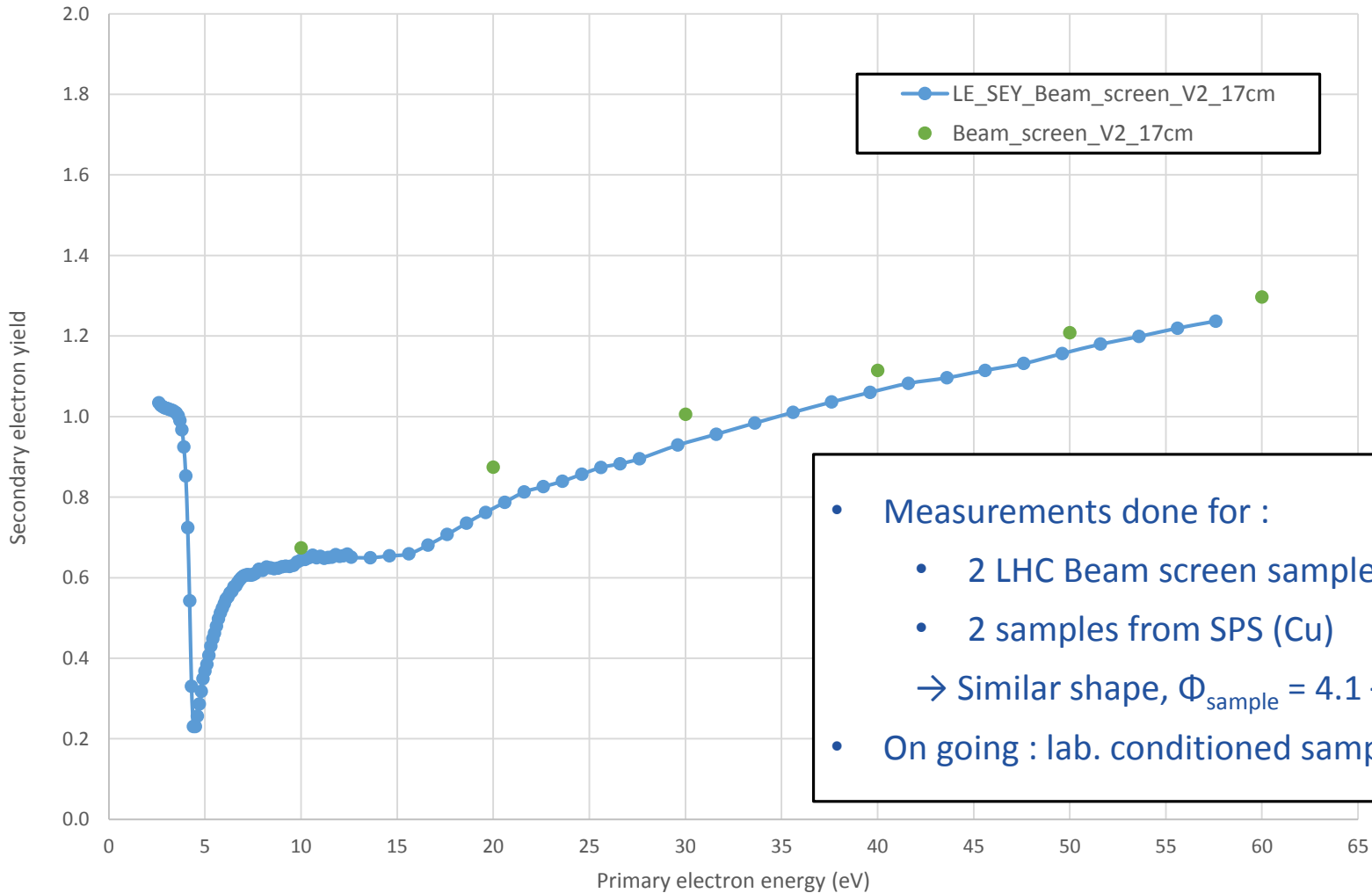
# Low energy measurements

LE\_SEY\_LHC\_Beam\_Screen\_V2\_17\_cm



# Low energy measurements

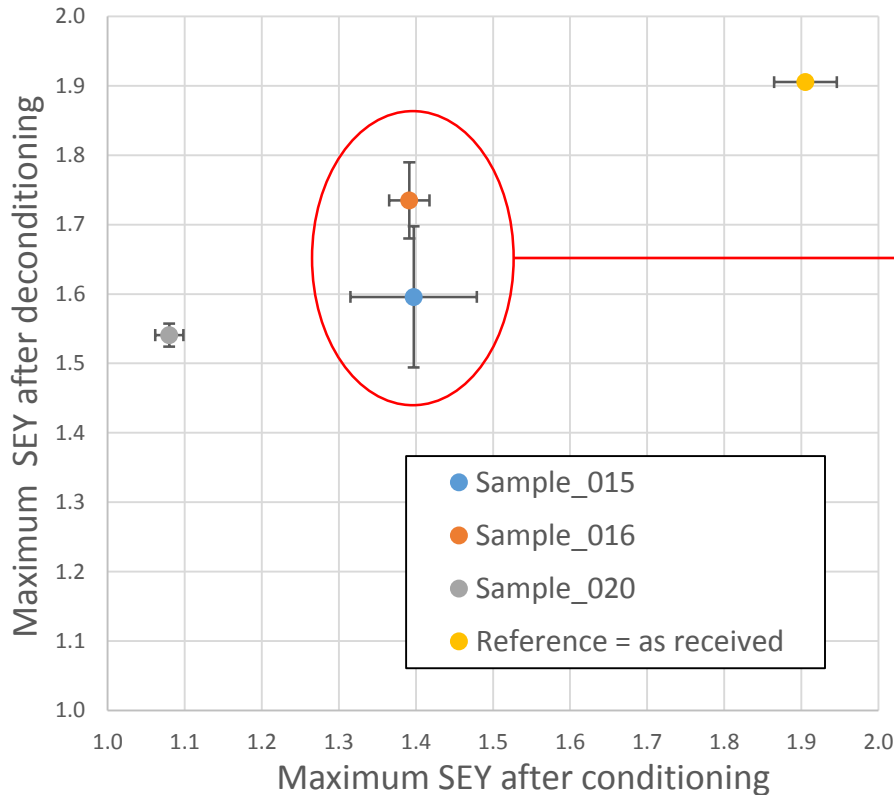
LE\_SEY\_LHC\_Beam\_Screen\_V2\_17\_cm



- Measurements done for :
  - 2 LHC Beam screen samples
  - 2 samples from SPS (Cu)
  - Similar shape,  $\Phi_{\text{sample}} = 4.1 - 4.3 \text{ eV}$
- On going : lab. conditioned samples

# Partial conditioning

- Conditioning at 250 eV
- Air exposed for 22 days



- Conditioned the same day
- Stored the same way

## Huge $\delta_{max}$ dispersion after partial conditioning

- e-gun profile not homogeneous
  - sample removed from system for air exposure : SEY not measured exactly at the same points after deconditioning
- go to second SEY measurement system (visibility on the sample, reproducibility of sample positioning)

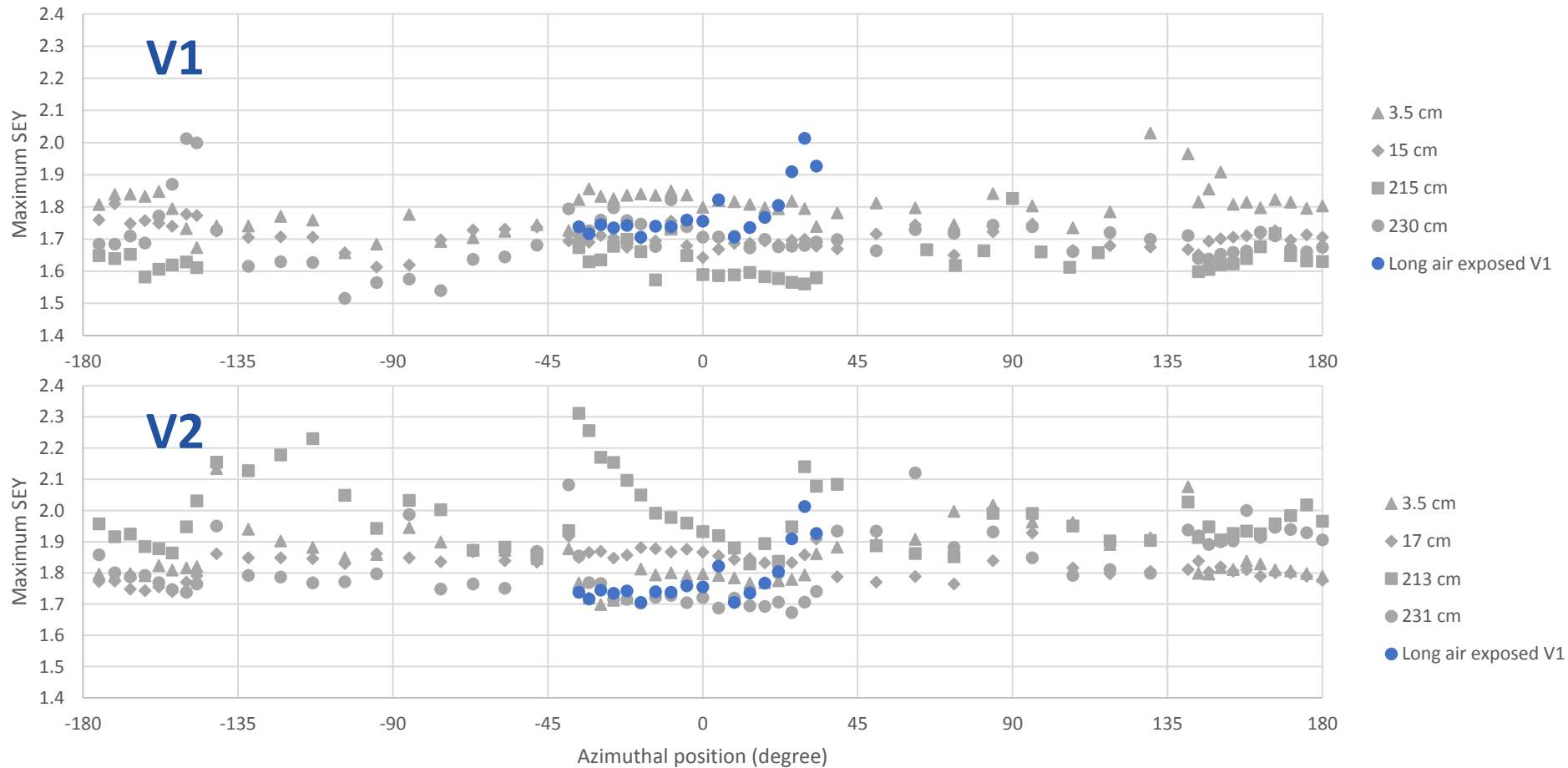
- Trend to erase the SEY difference between two different conditioning states  
→ need more points at different conditioning states



**Thank you for your attention**

# Spare

# A31L2 Beam screen



Long air exposed = extracted at the same time as other V1 sample but stored for longer time in the lab before measurements