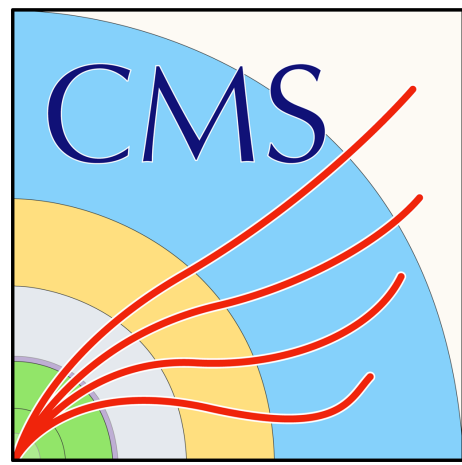




Politecnico
di Bari



KODEL-H (CMS-Upgrade)

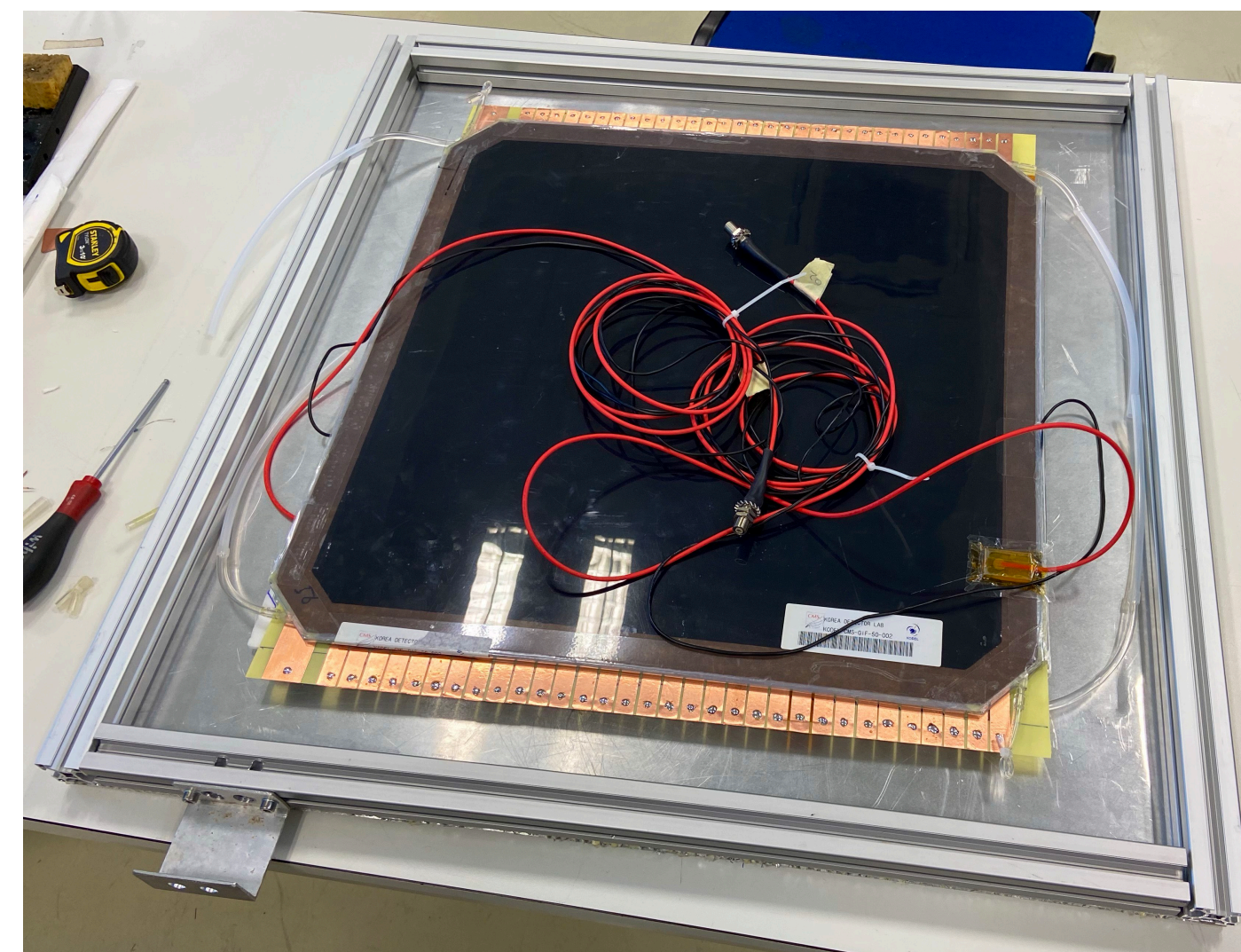
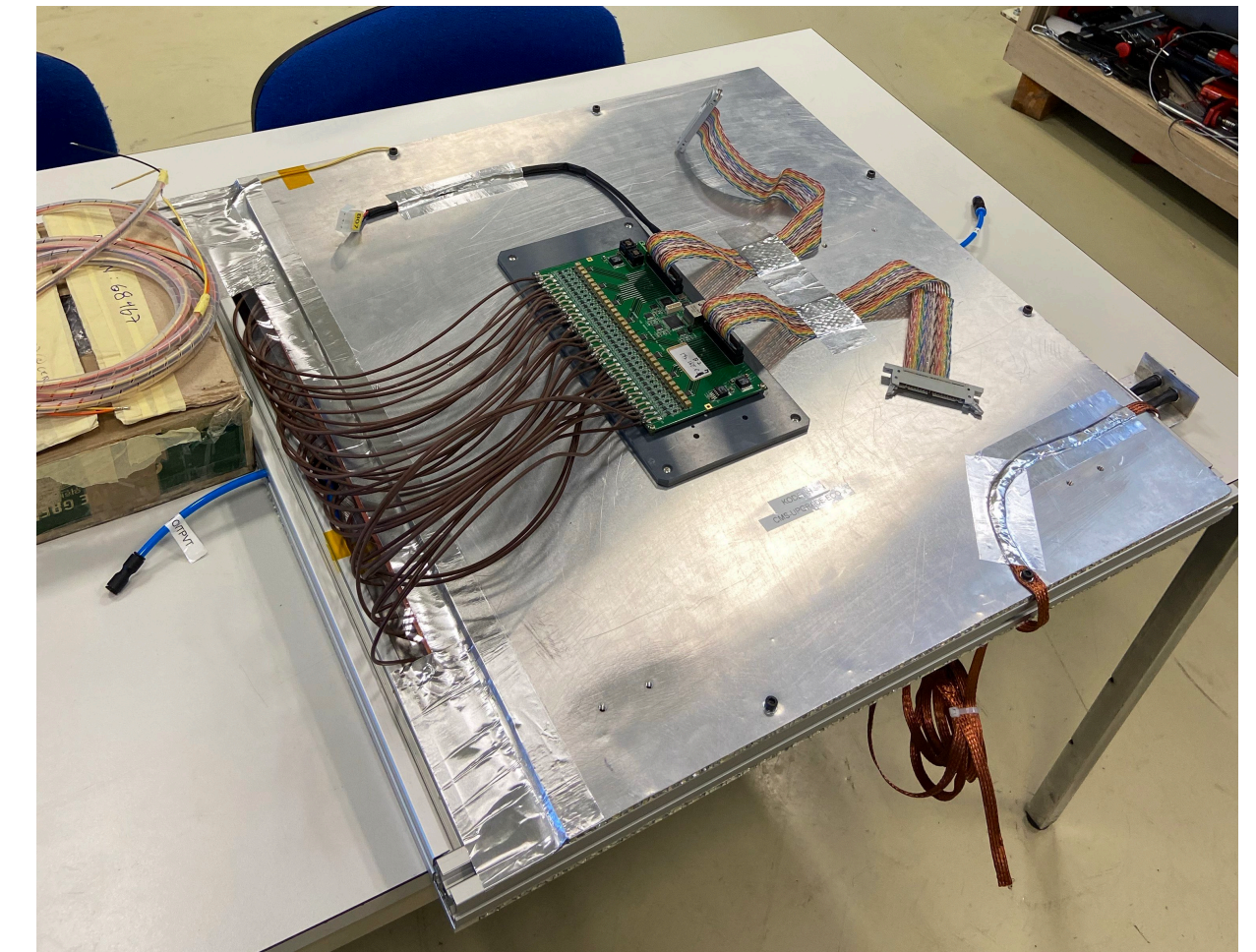
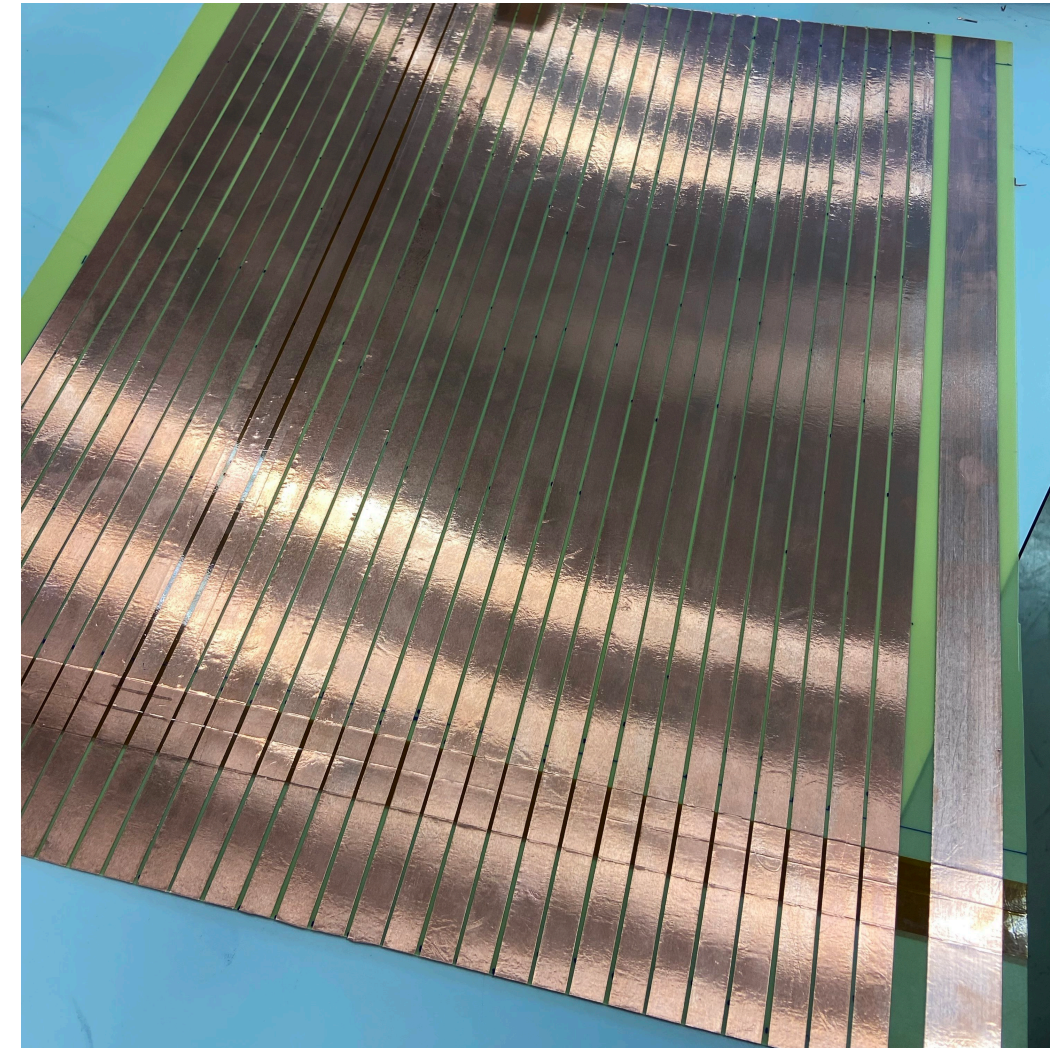
Preliminary results ECOgas TB-July2023

Dayron Ramos - Politecnico and INFN Bari
Dalia Ramirez - Universidad Iberoamericana

KODEL-H

Double gap layout

- **Frame:**
 - Al: 66 cm x 58 cm
- **Gaps: Strips:**
 - Area: 51 cm x 51 cm
 - Active Area: 45.5 cm x 45.5 cm
 - **Electrode thickness: 1.43 mm**
 - **Gap thickness: 1.4 mm**
- **Strips:**
 - Homemade panel
 - 32 strips - 1.27 cm width, “pitch” ~1.4 cm
 - 50 ohm termination
- **FEB:**
 - KODEL FEB
 - THR = 500 μV \approx 60 fC
- **GIF position:**
 - Trolley 3, ~4 mts from source

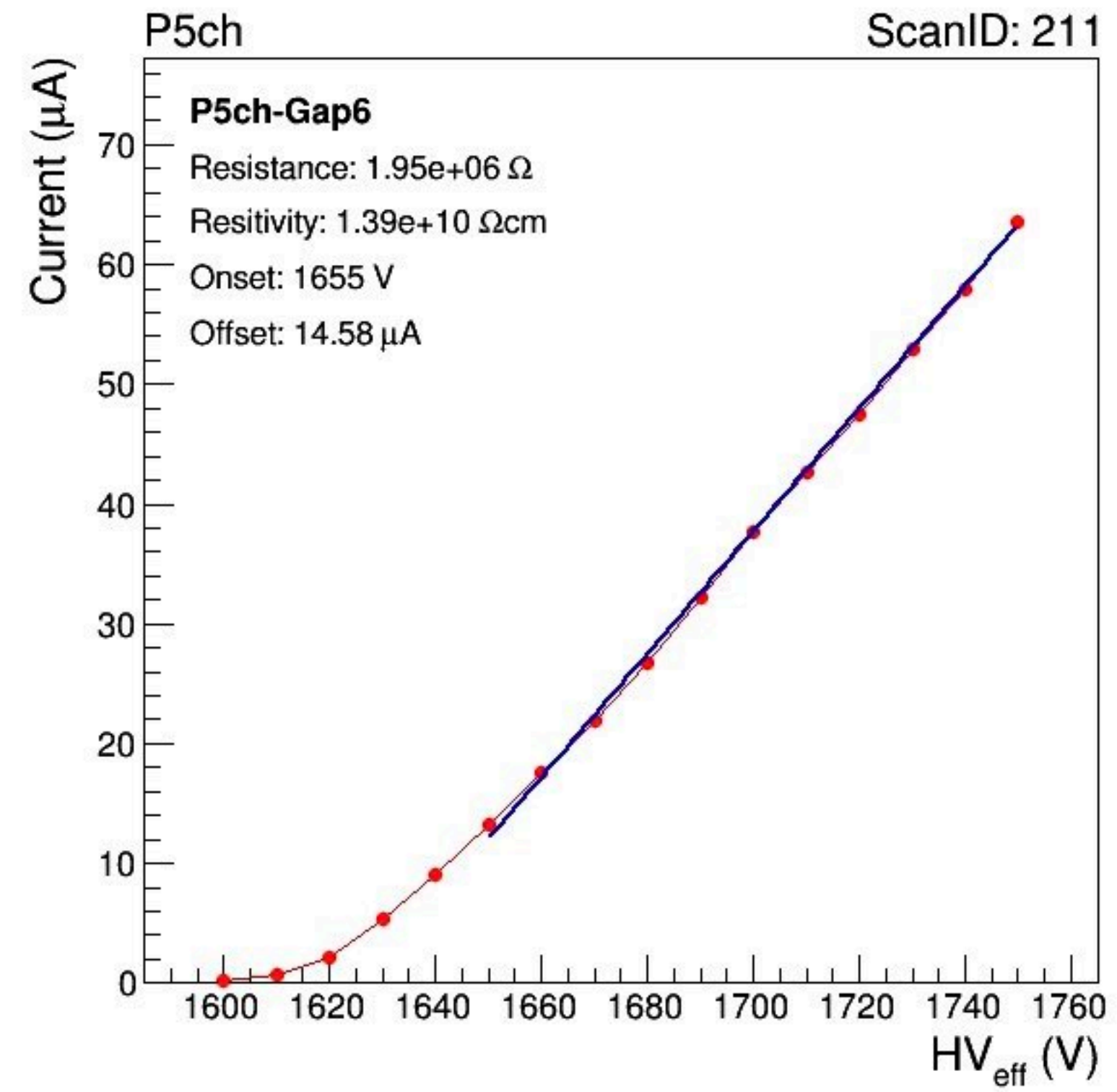
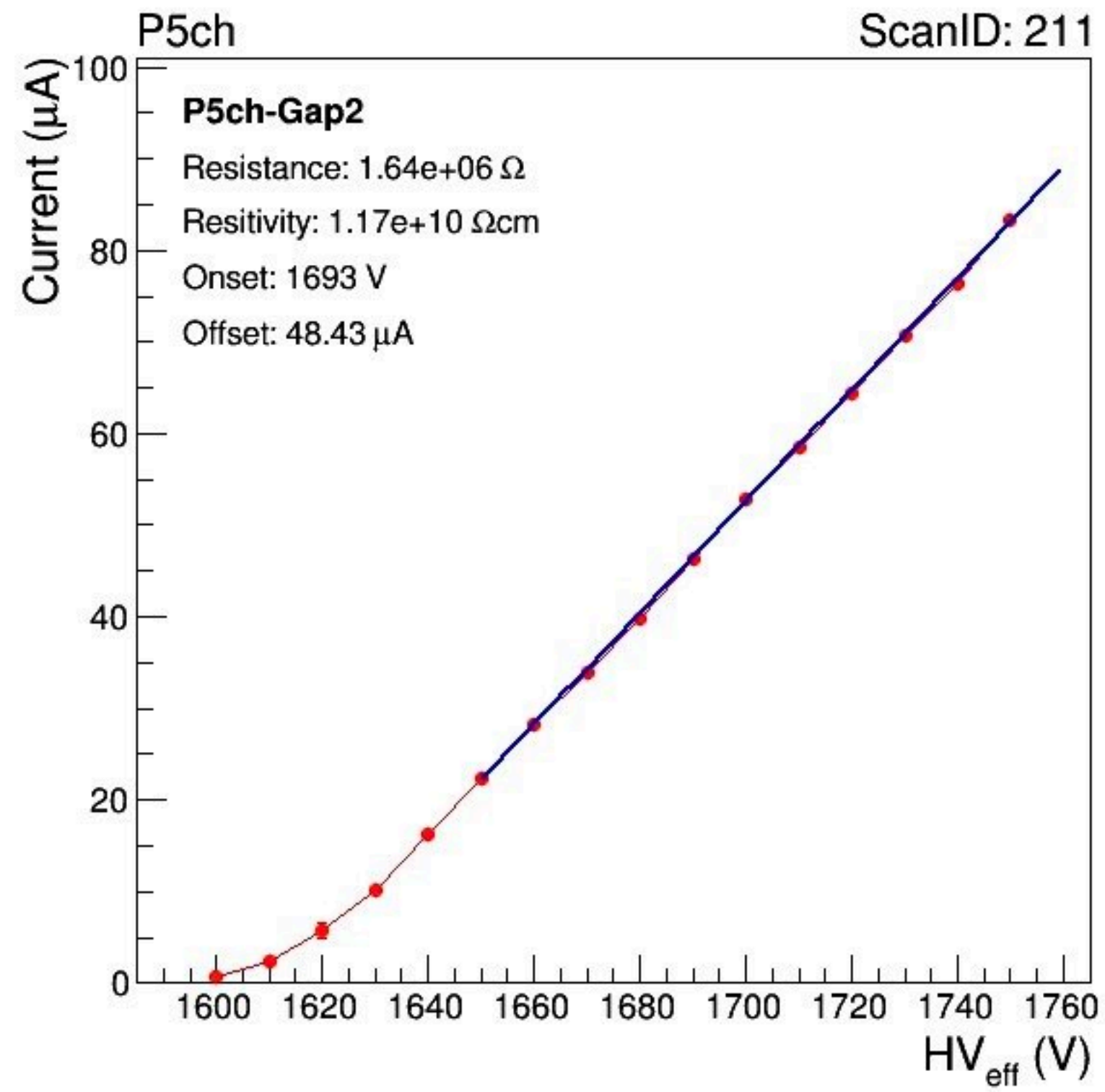


Gaps resistivity

Ar scan at 904

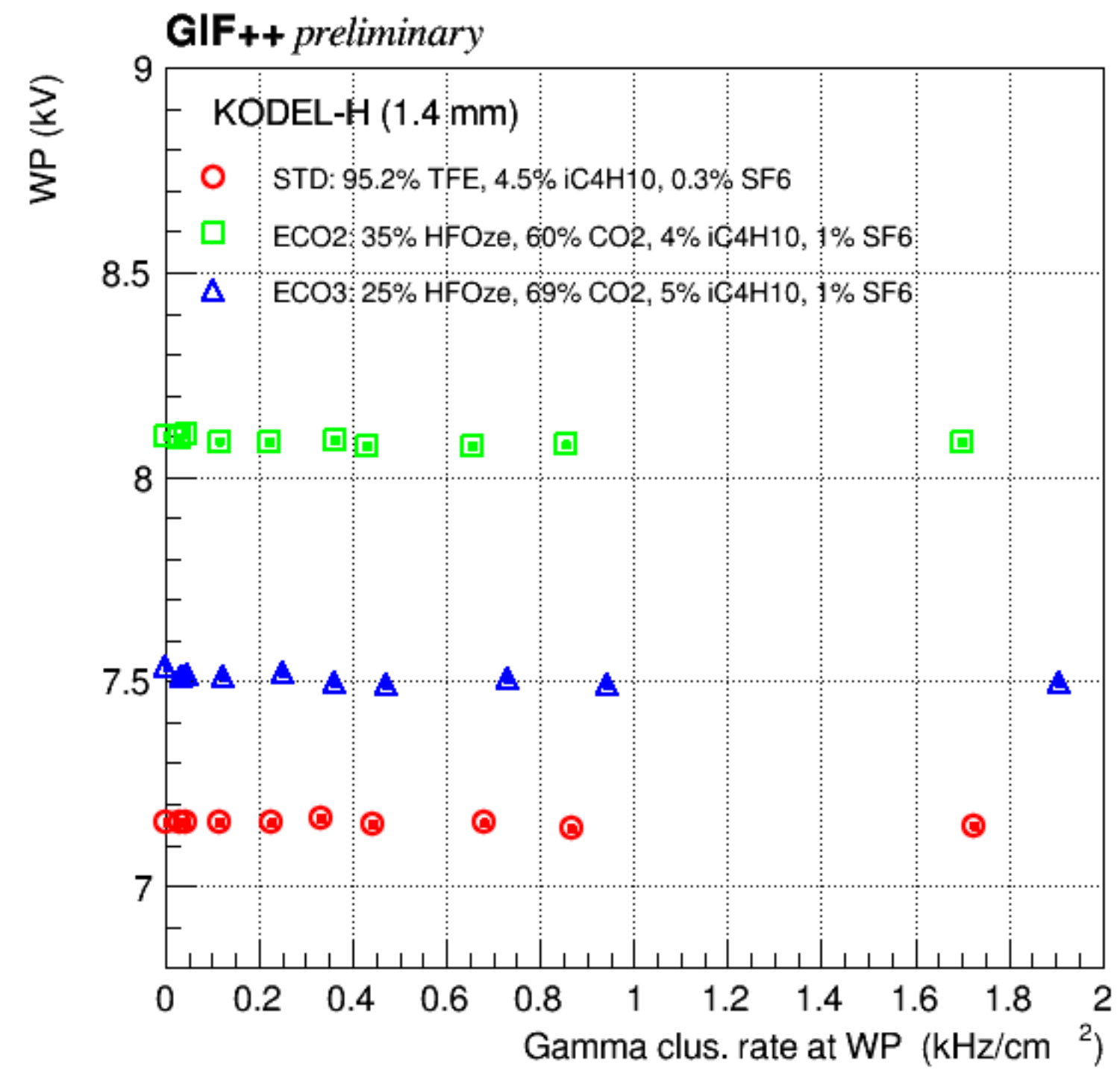
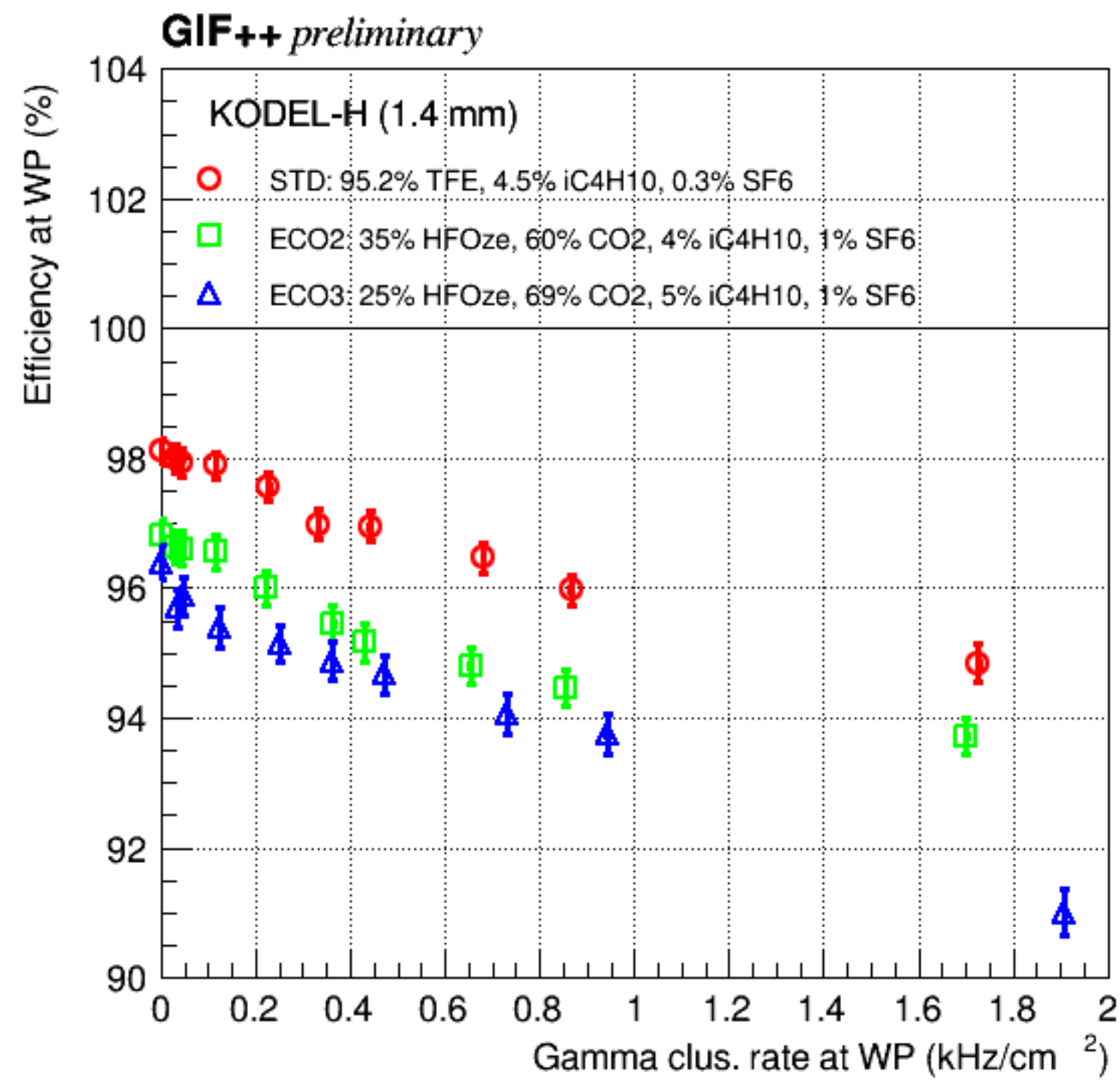
KODEL-H TOP → P5ch-Gap2

KODEL-H BOT → P5ch-Gap6



Preliminary results

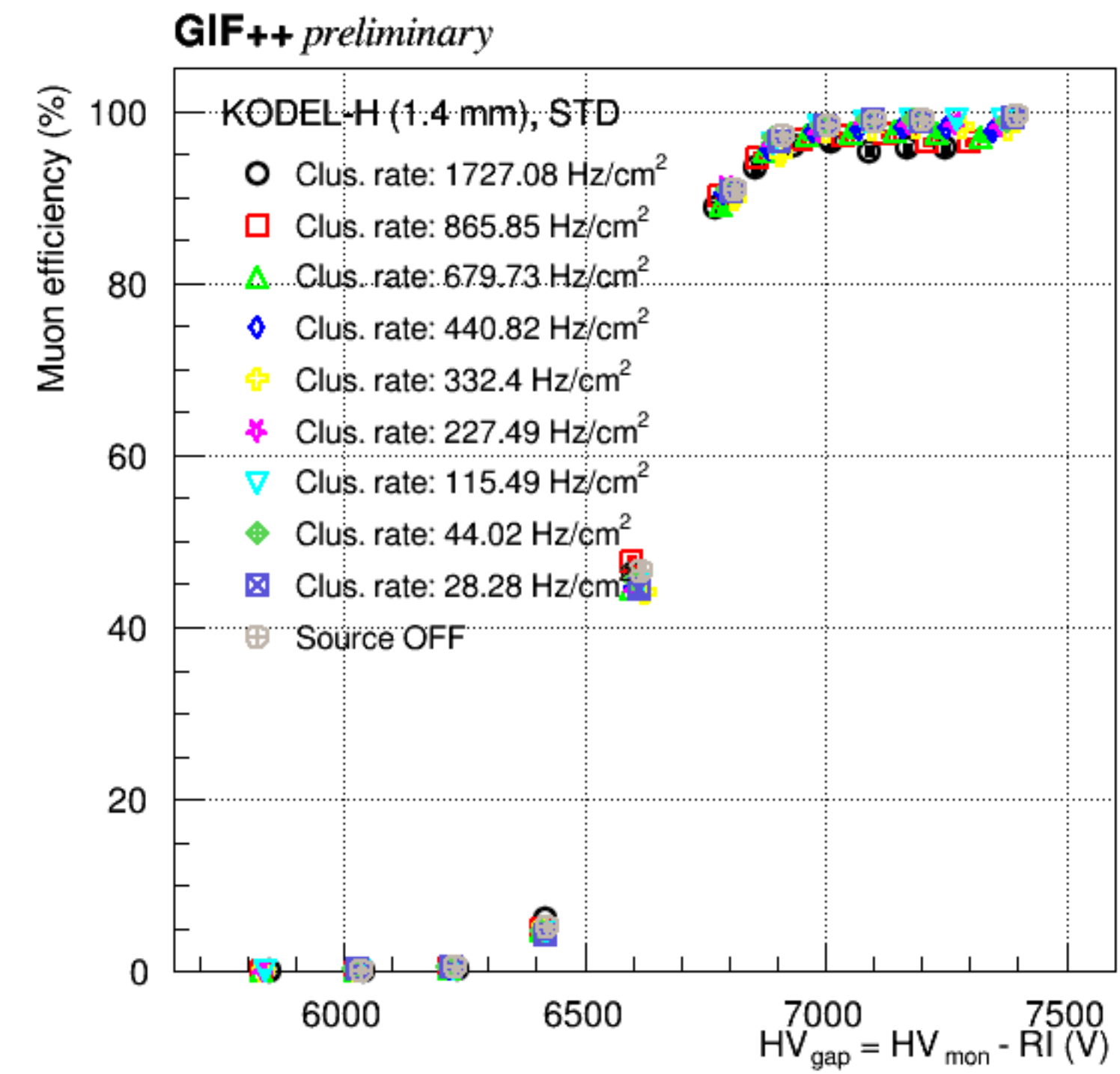
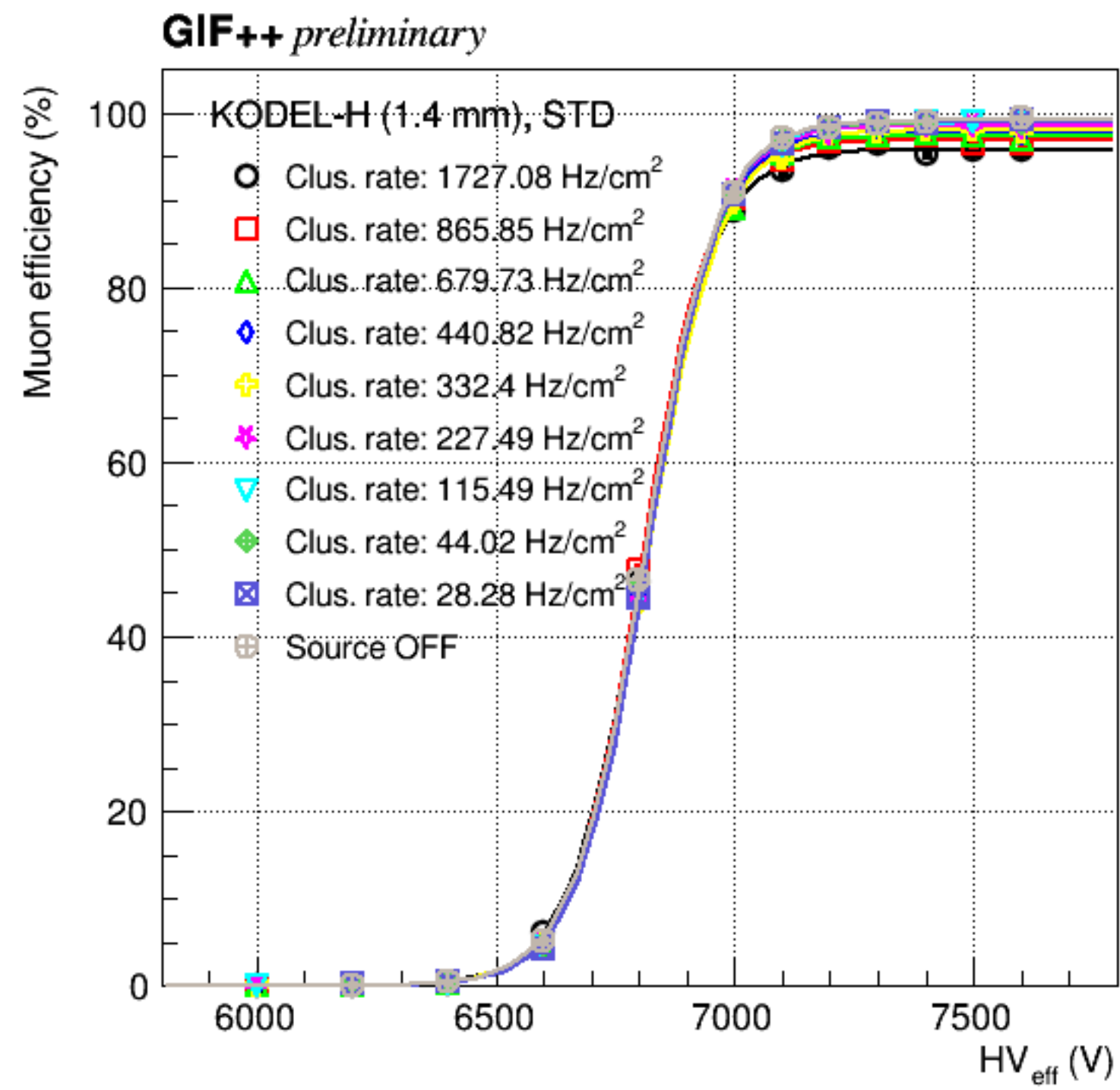
Efficiency and WP



Preliminary results

STD mixture: RI correction

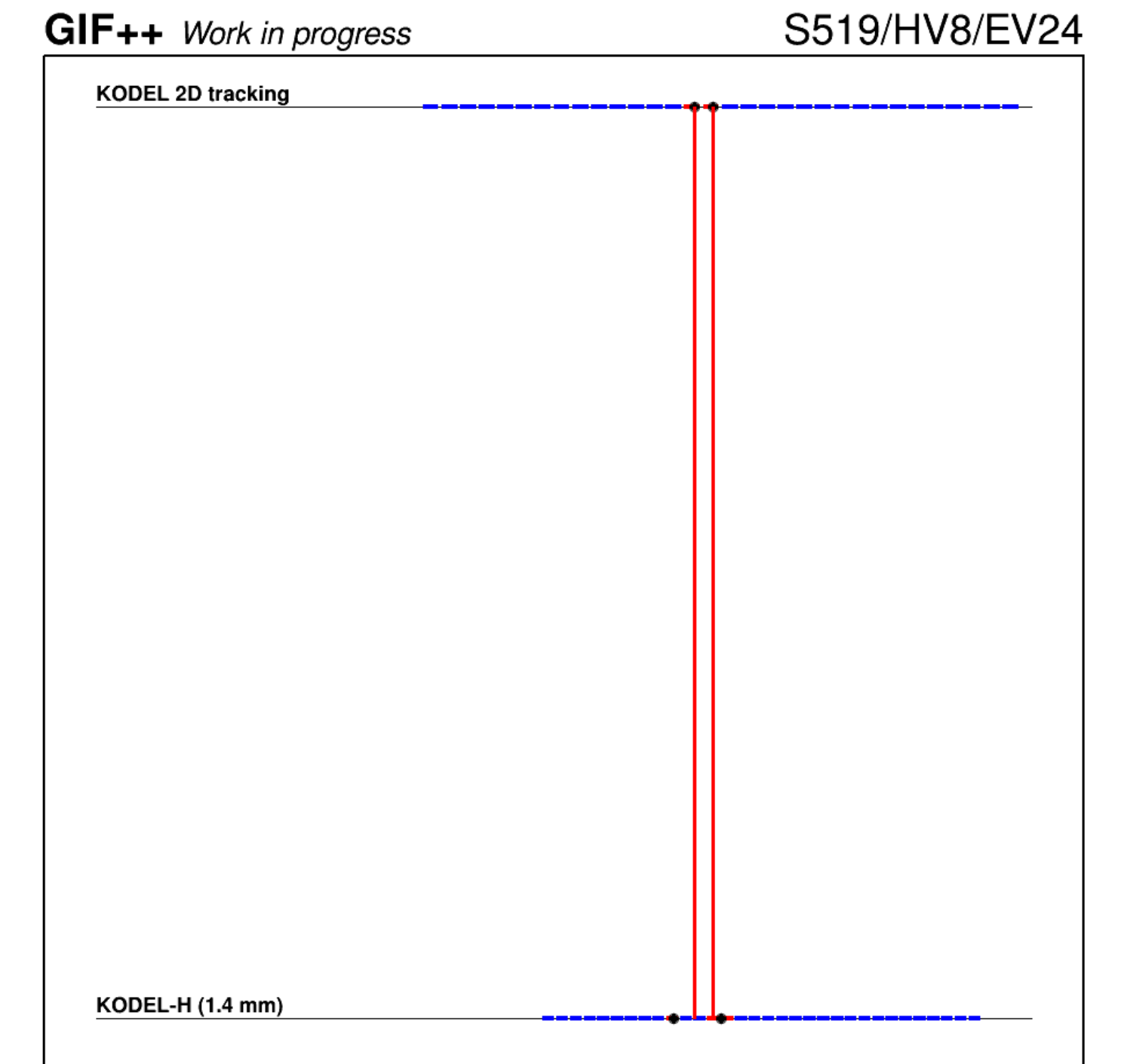
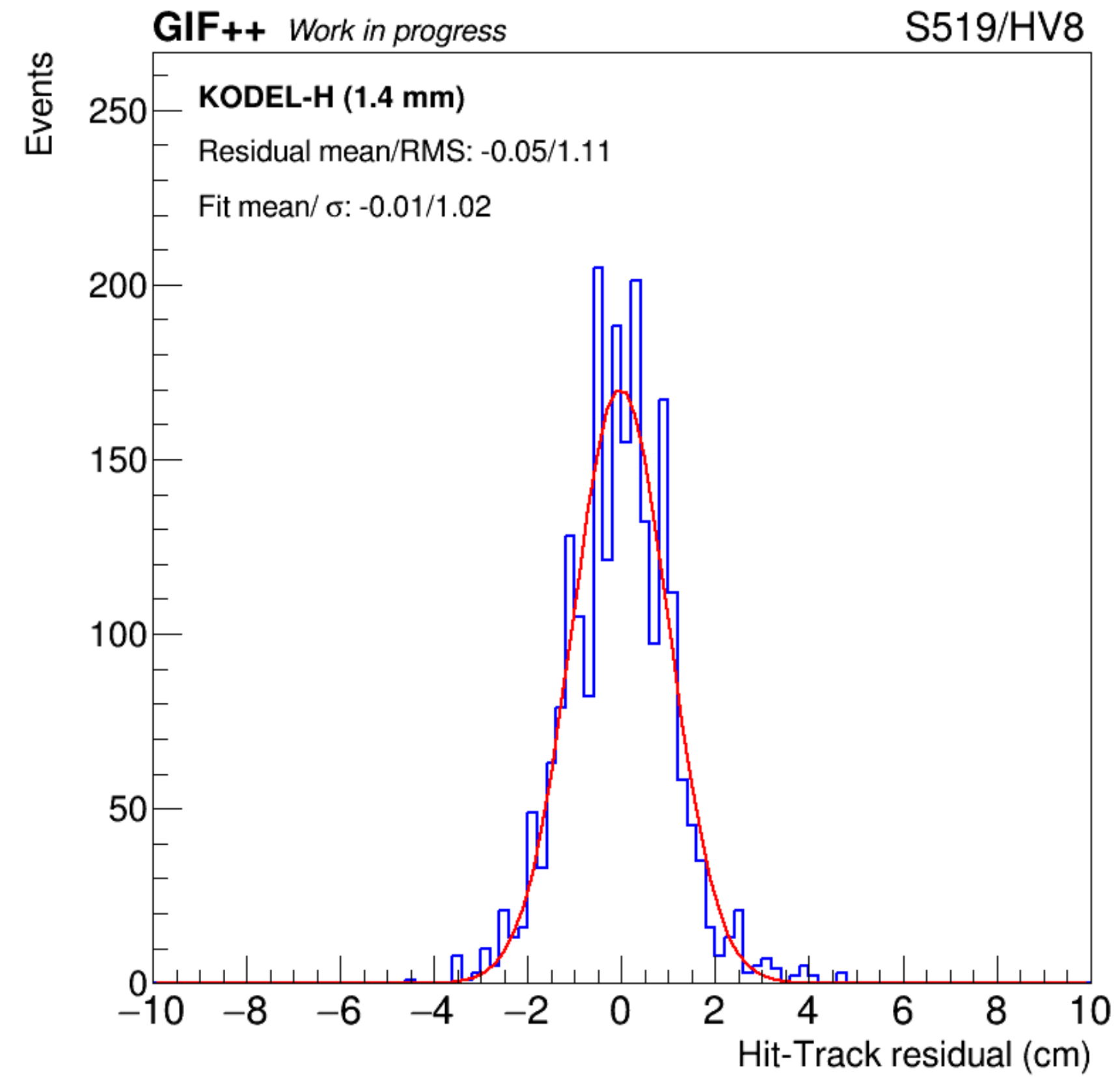
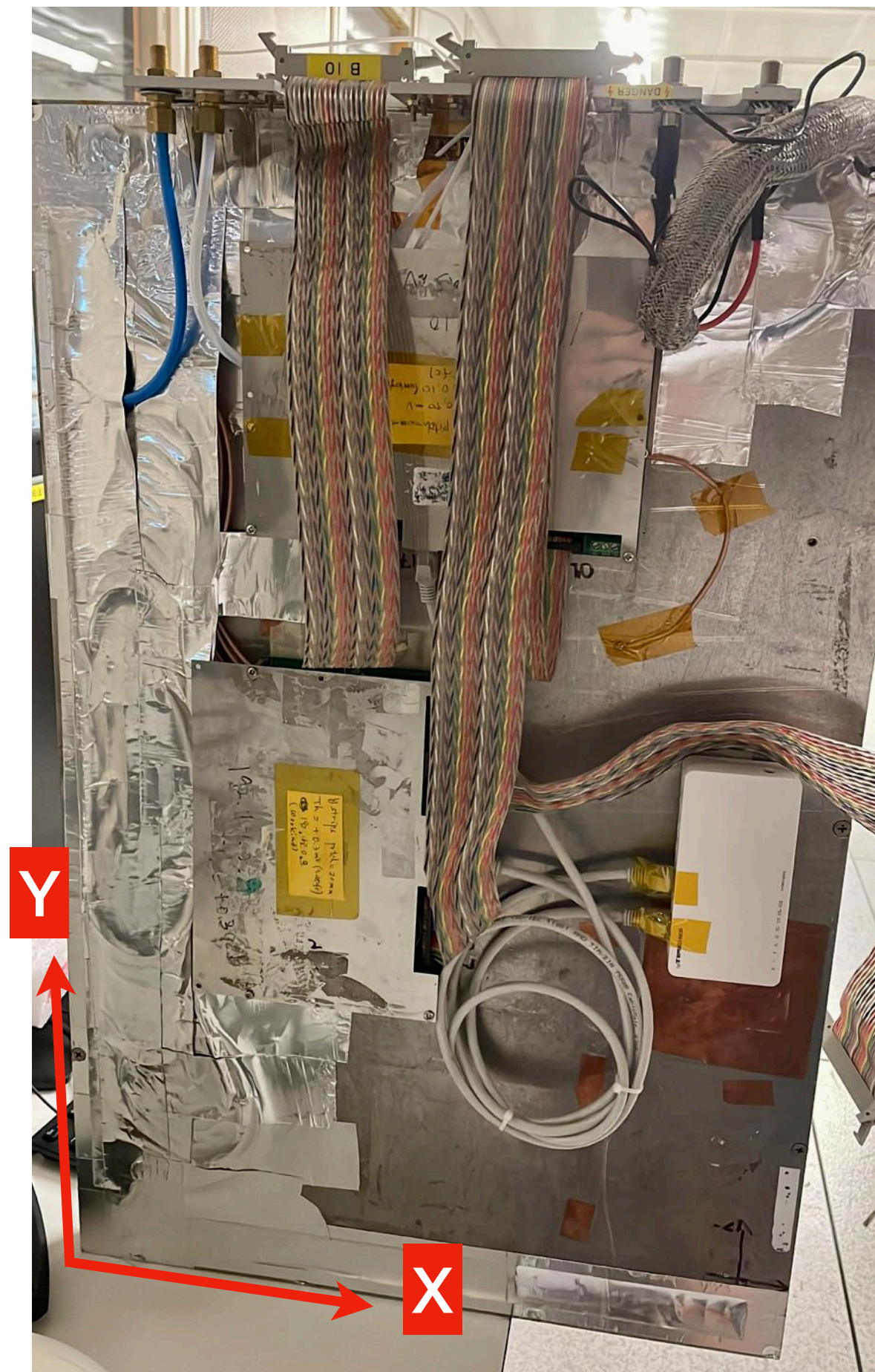
$$HV_{gap} = HV_{app} - RI$$



Preliminary results

Tracking KODEL-2D

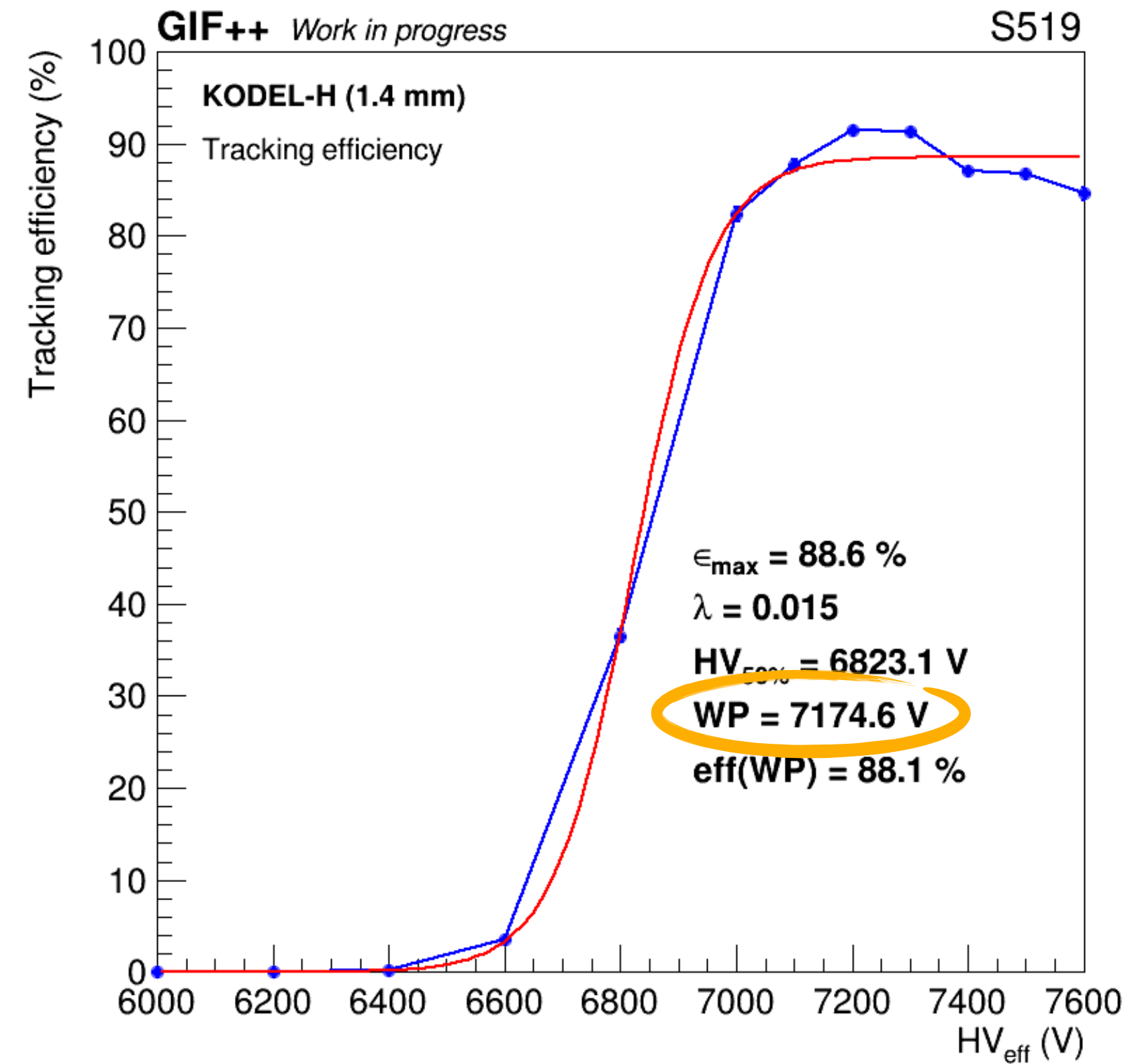
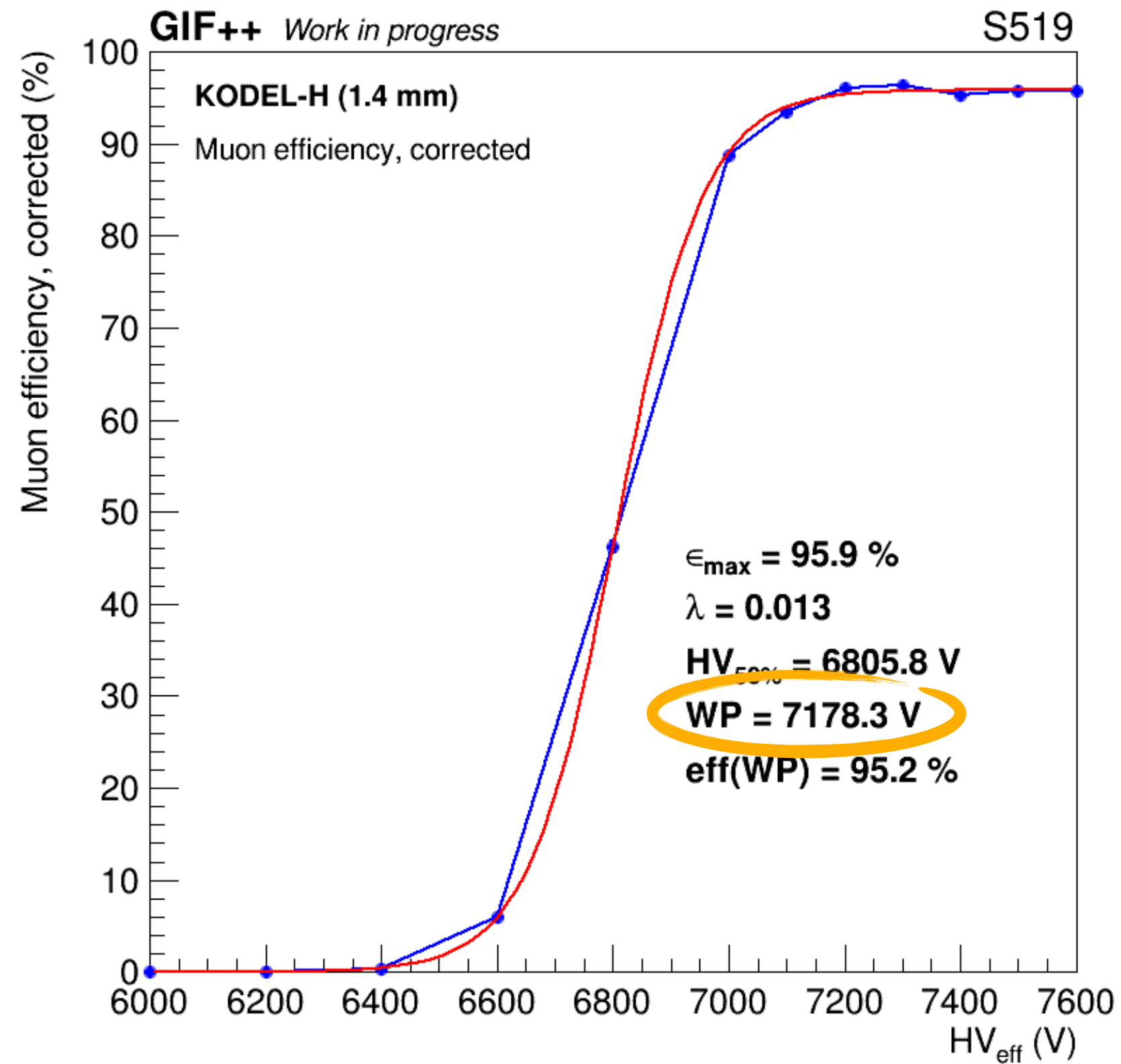
Alignment and even display (webdcs)



Preliminary results

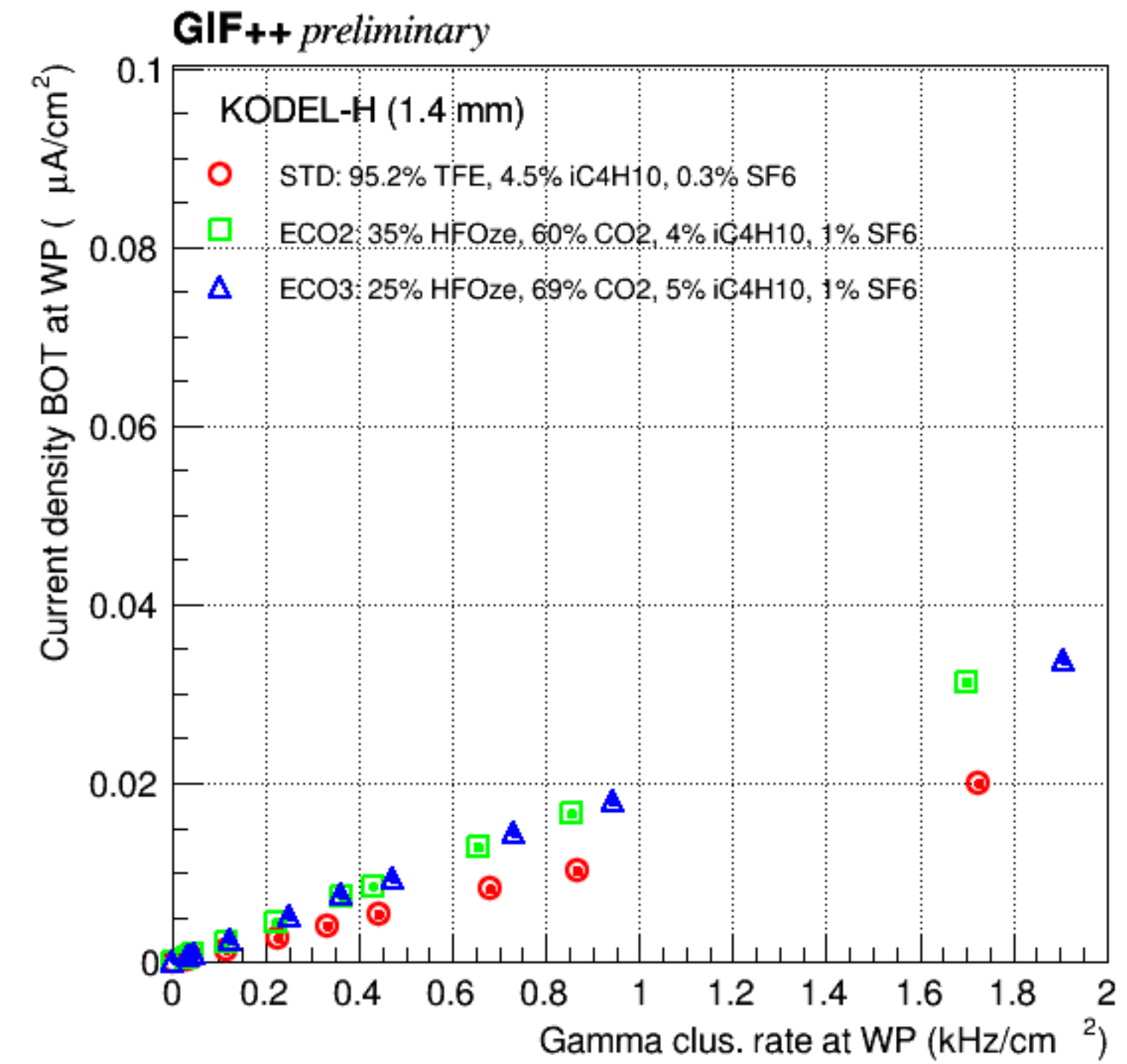
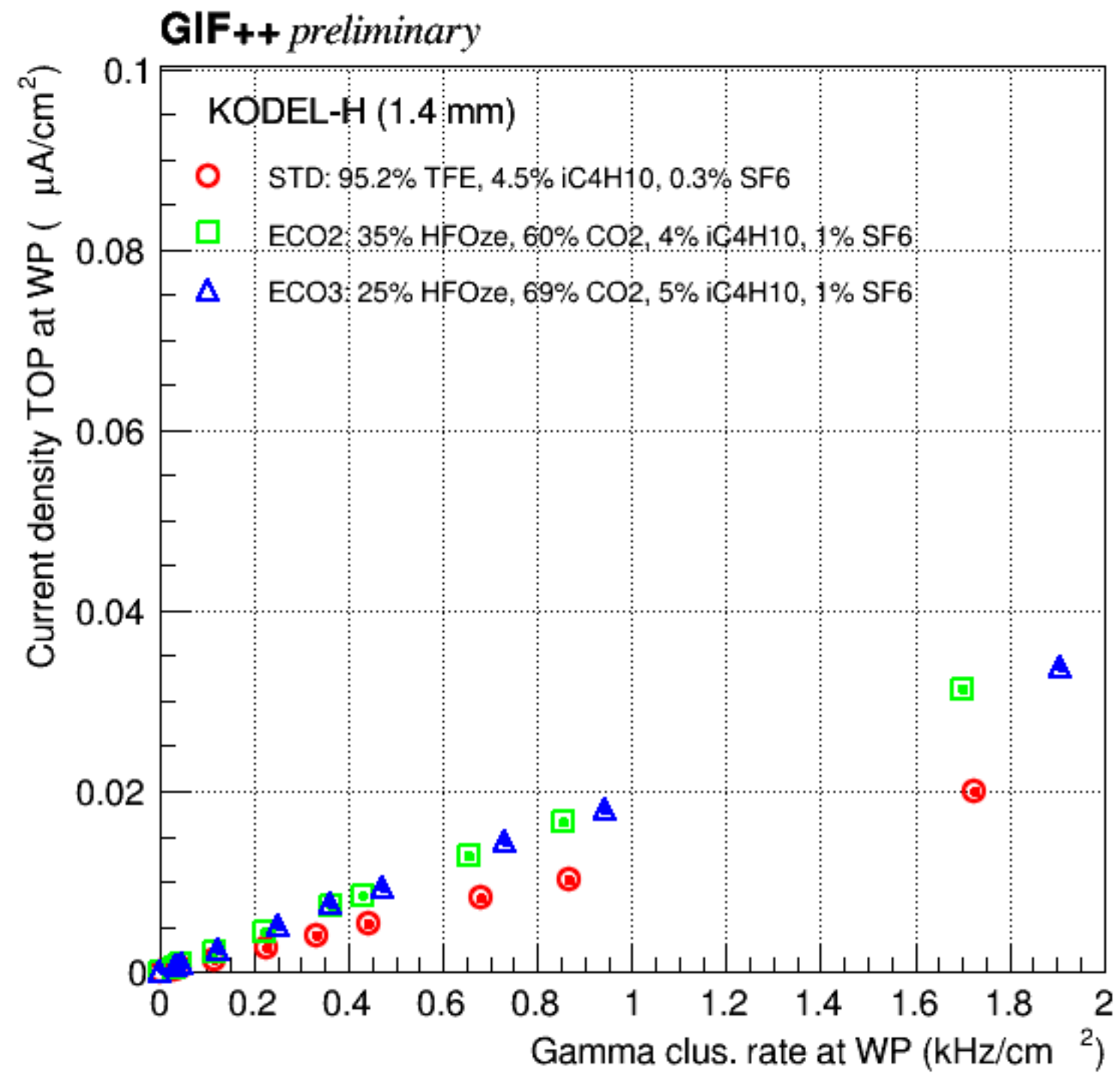
Tracking KODEL-2D

- STD mixture
- ABS = 1
- gamma clus. rate at WP = 1.7 kHz/cm²



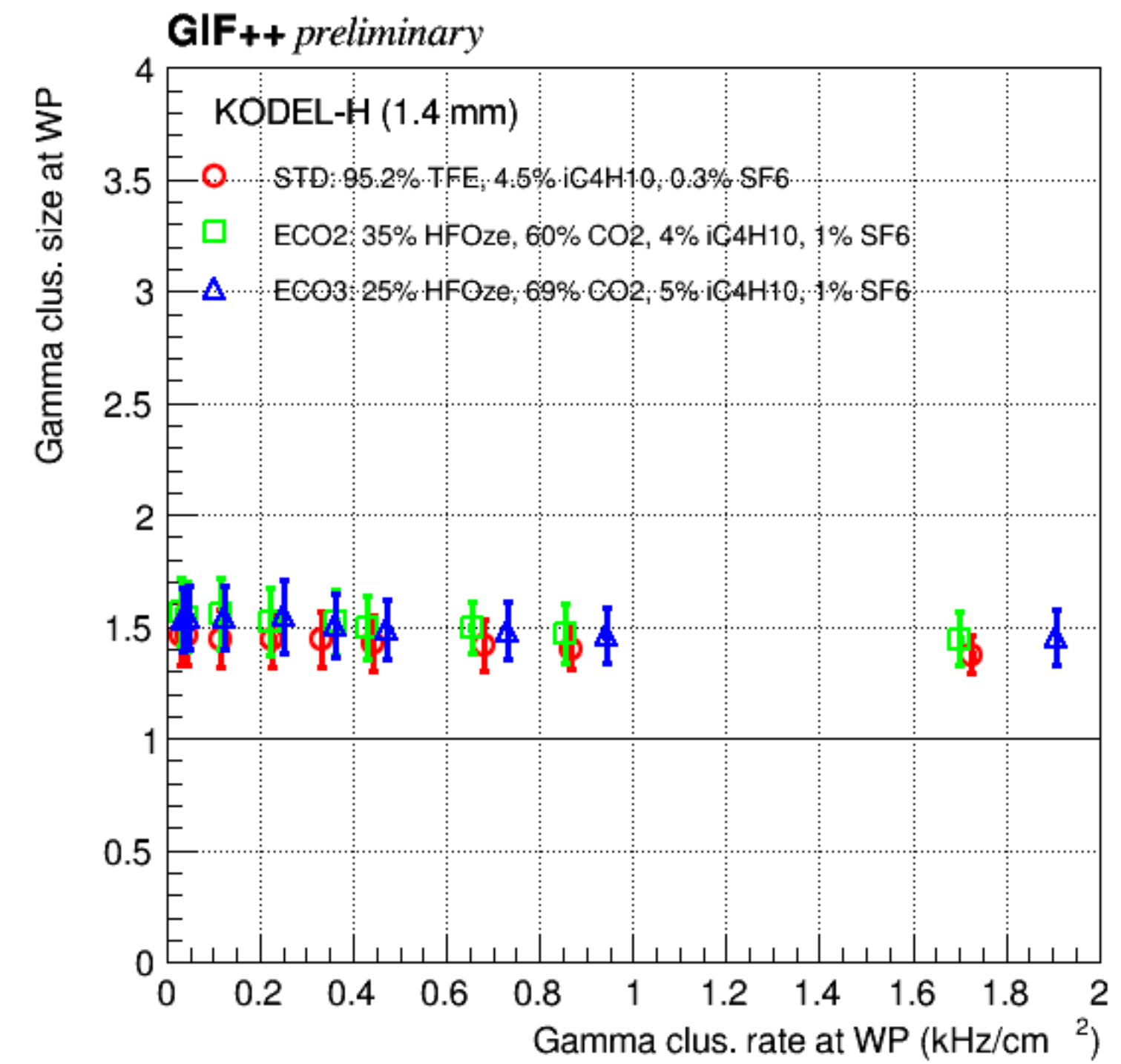
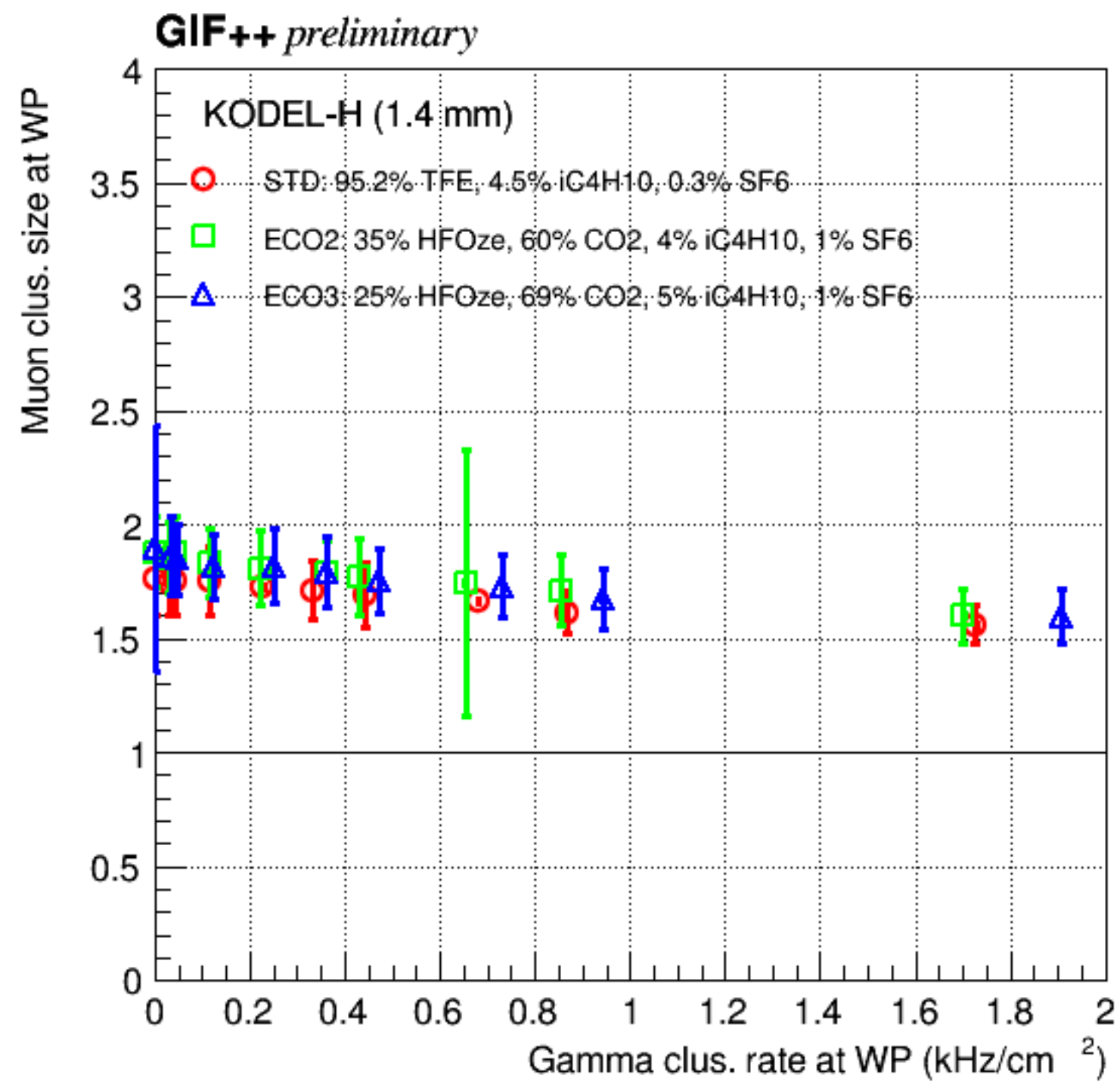
Preliminary results

Current density



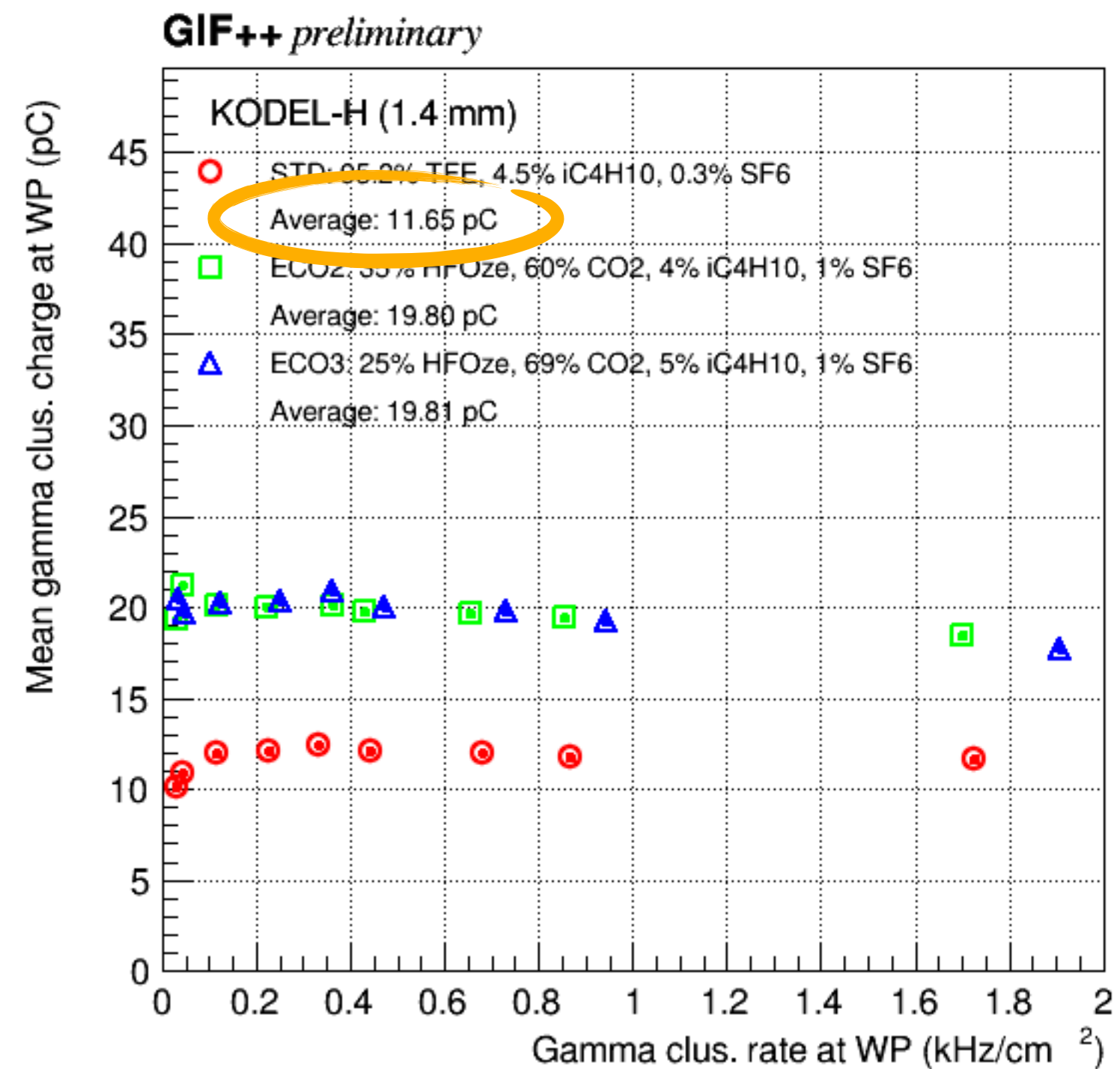
Preliminary results

Muon/gamma CLS



Preliminary results

Mean gamma clus. charge



- Average charge **iRPC** ≈ 10.9 pC (at THR = 33 fC)
- **KODEL-H** at THR = 500 μ V (≈ 60 fC) and STD mixture \rightarrow average charge = **11.65 pC**