

# **Lab Tests**

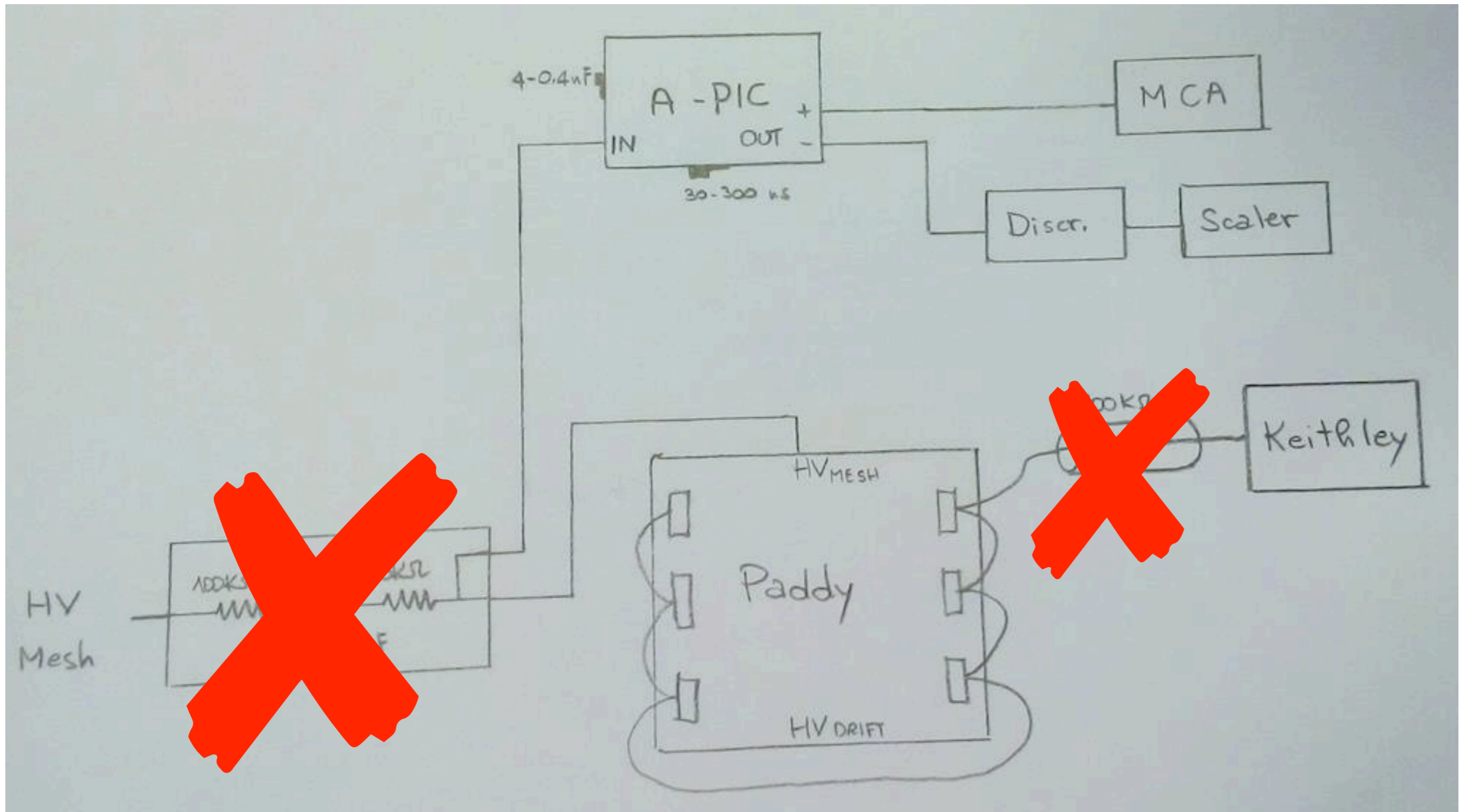
## **November 2017**

**Eleonora Rossi & Mariagrazia Alviggi & Givi  
Sekhniaidze**

# Main goals

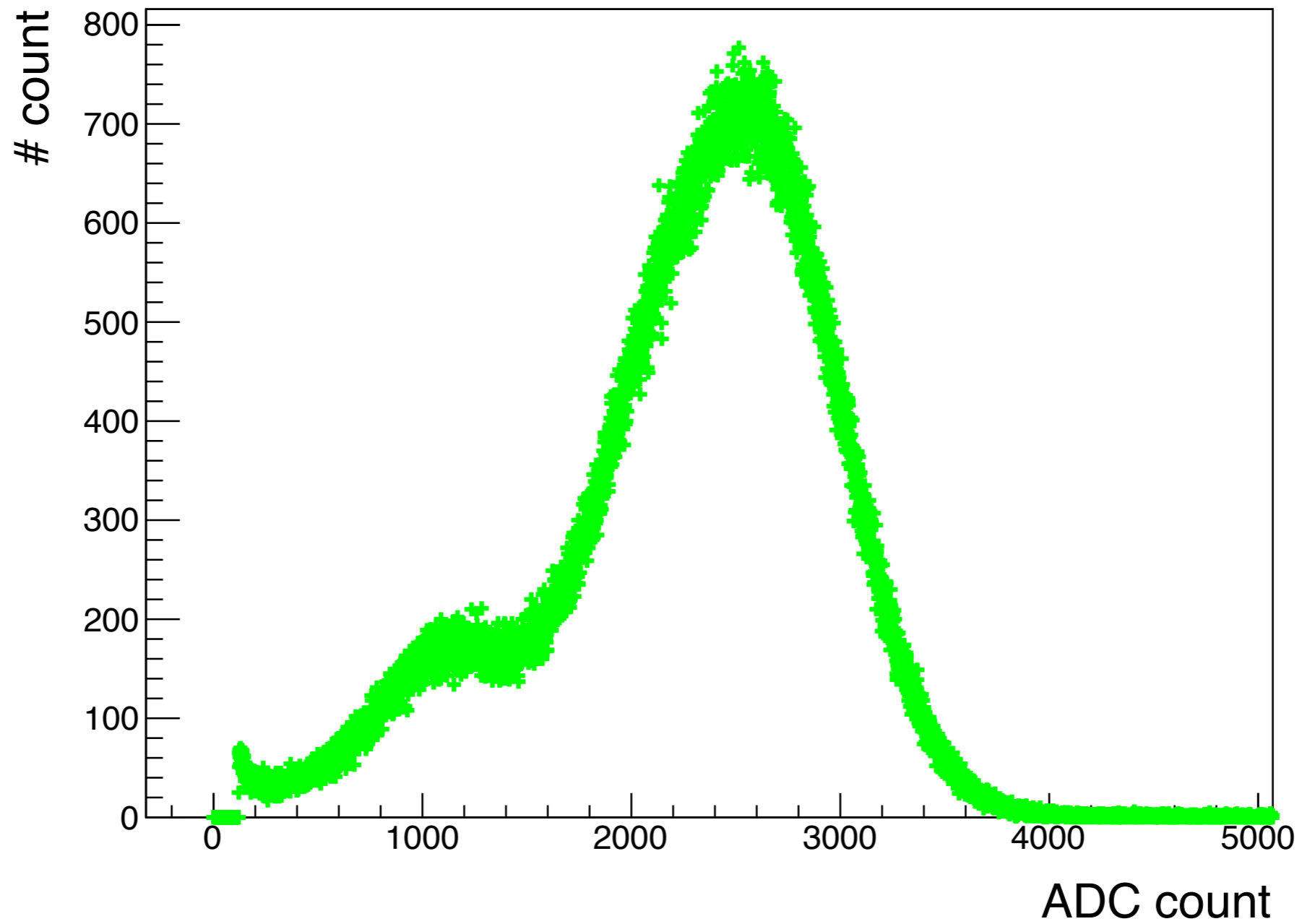
- Study Paddy-DLC under X-Ray irradiation
- Compare DLC results to Paddy-2
- Repeat charge-up and discharges studies
- Verify DLC resolution

# Data taking scheme



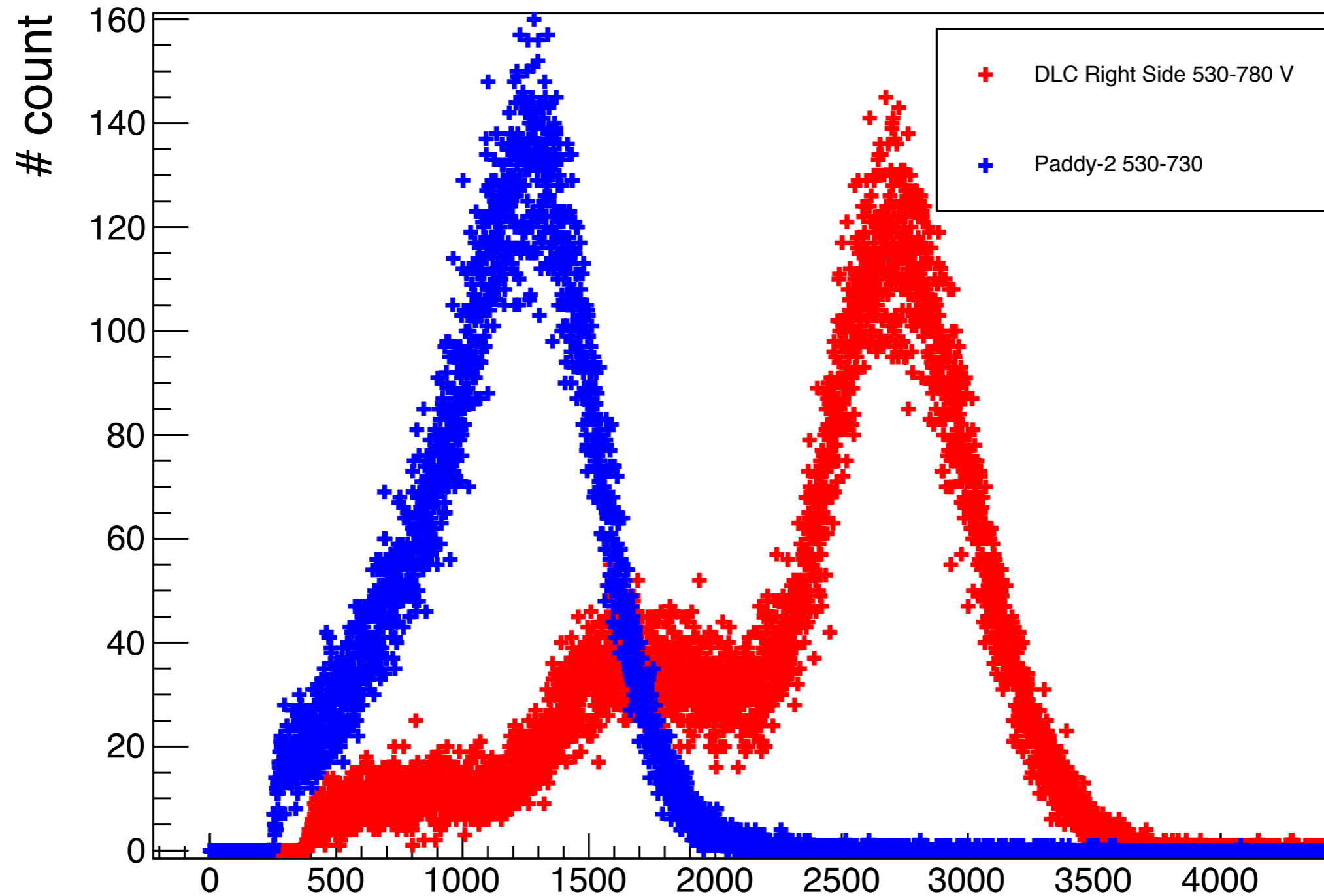
# Paddy-2 Nice Spectrum

Paddy-2 HV=530-780 V High Fe55



# Comparison between Paddy-2 and DLC

Paddy-2 DLC I\_XRays=100 uA

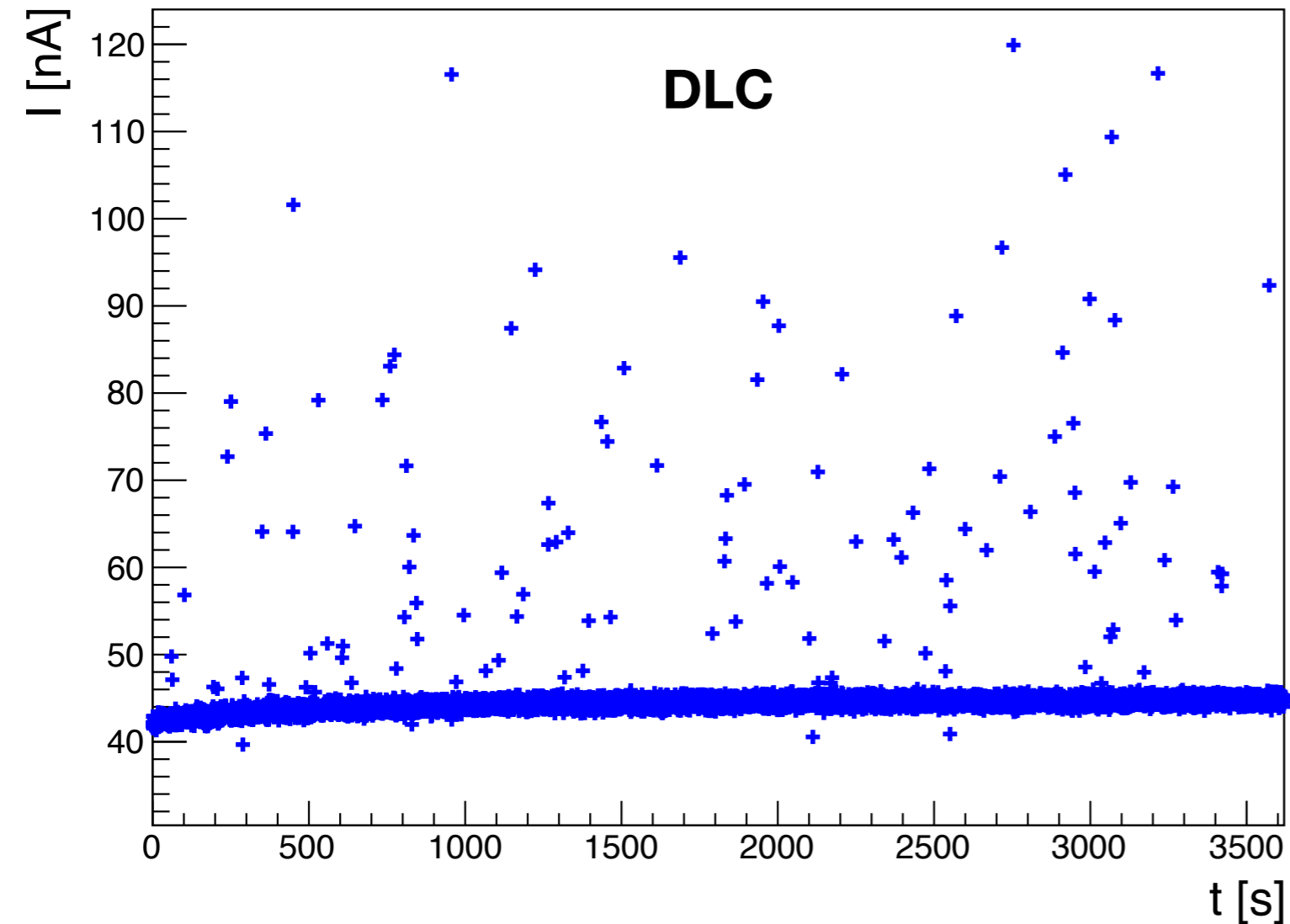


**DLC energy resolution is better than Paddy-2**

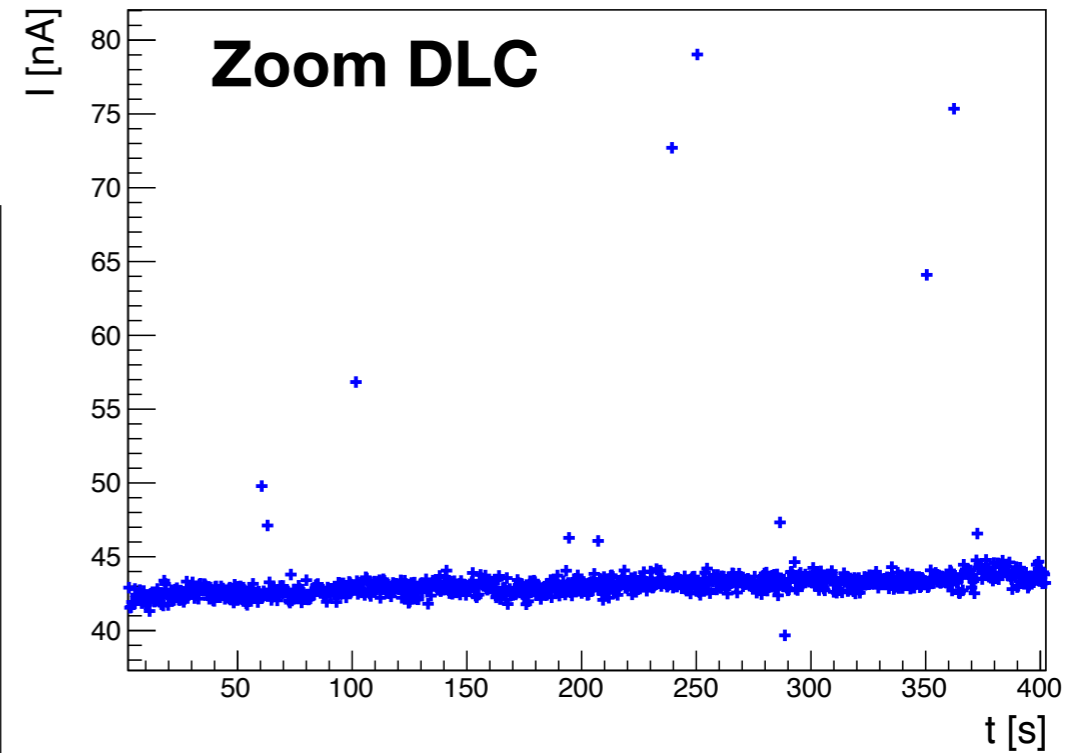
ADC count

# DLC (Right Side 12 mm) discharges High Fe55

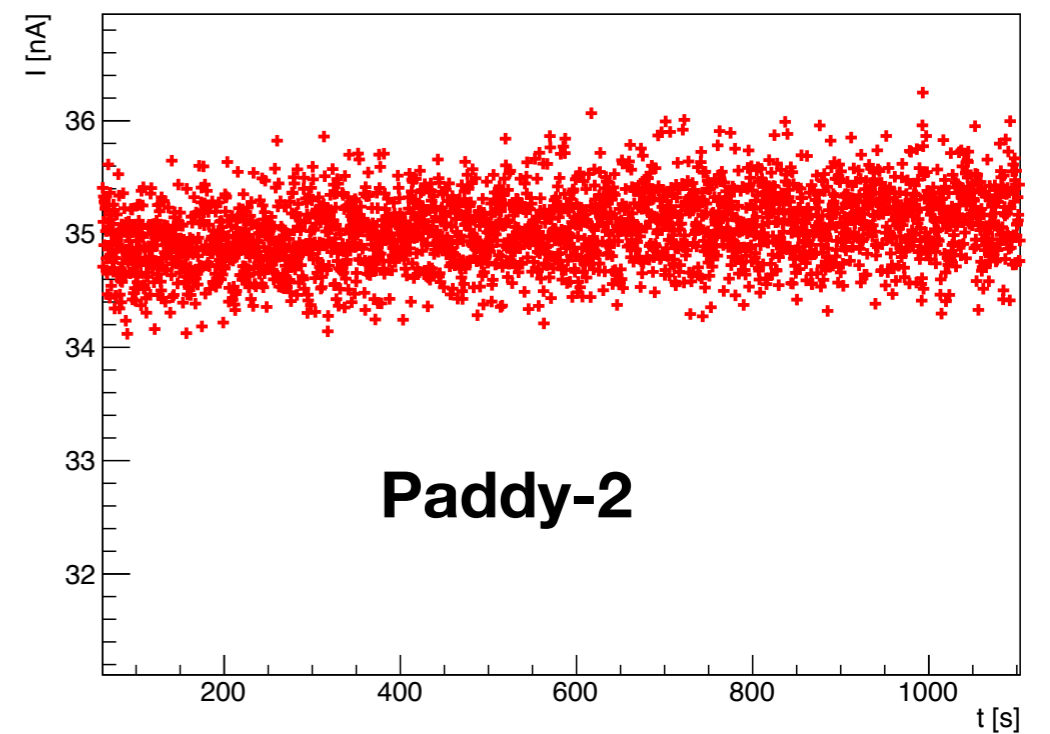
Discharges



Discharges



Discharges

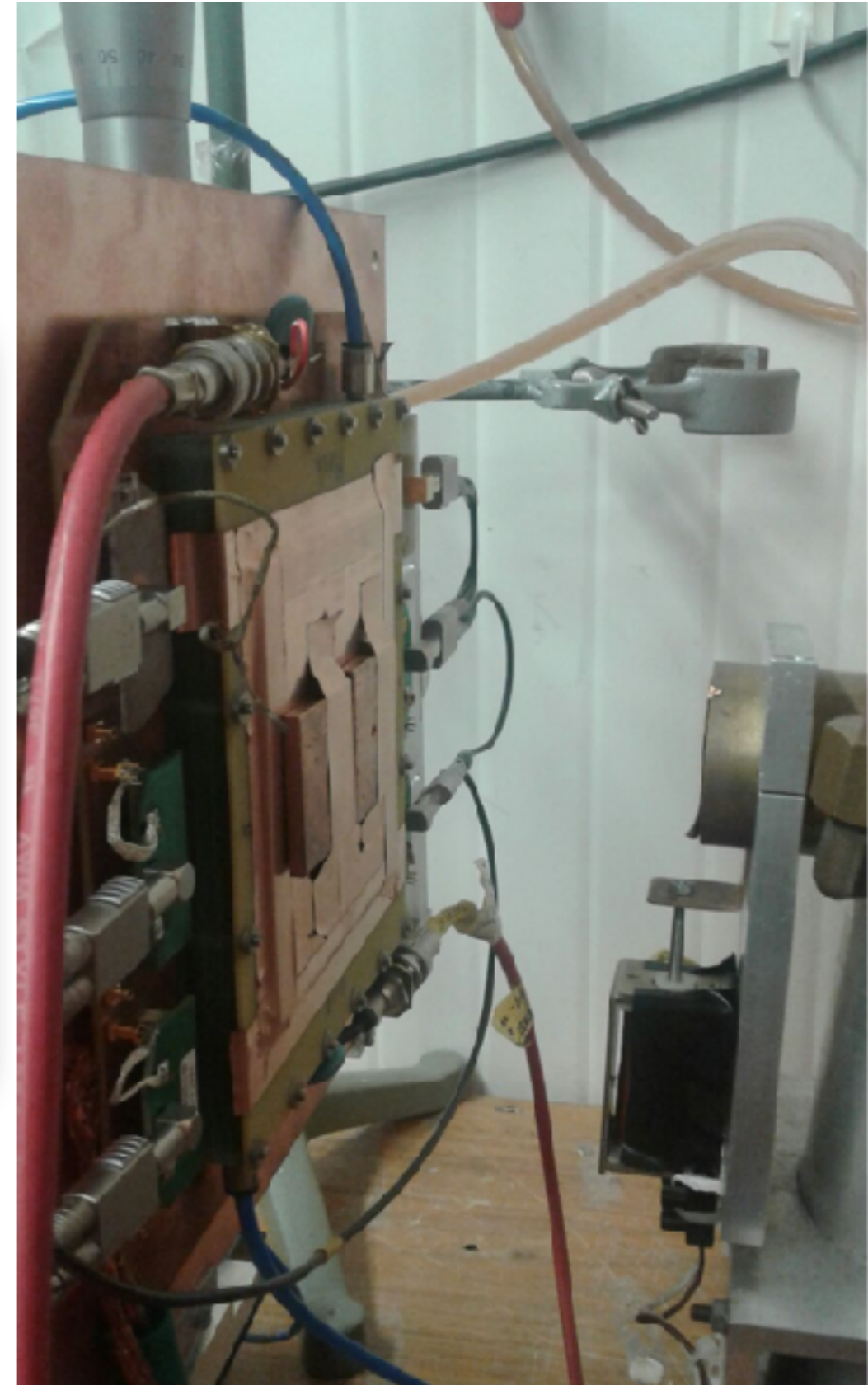
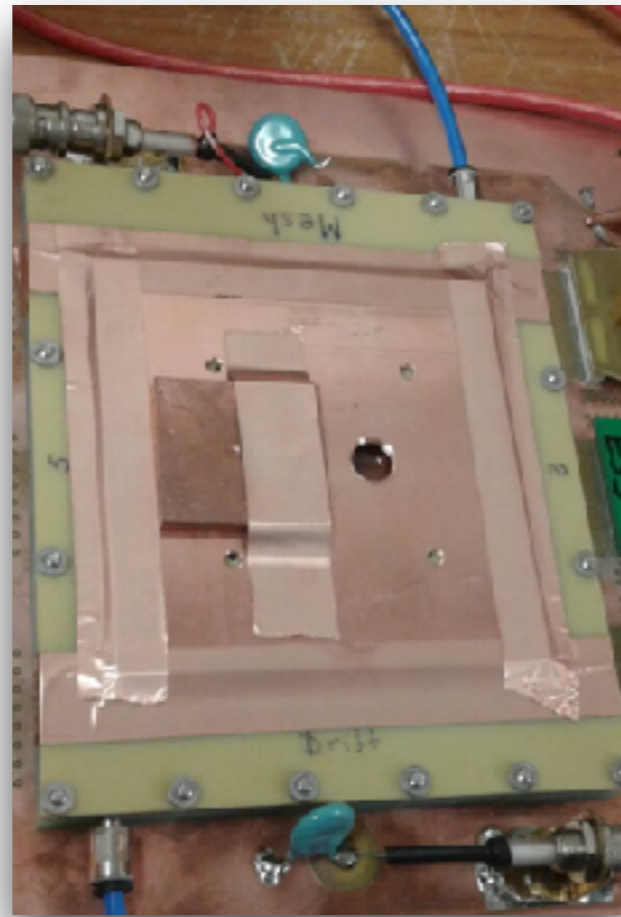
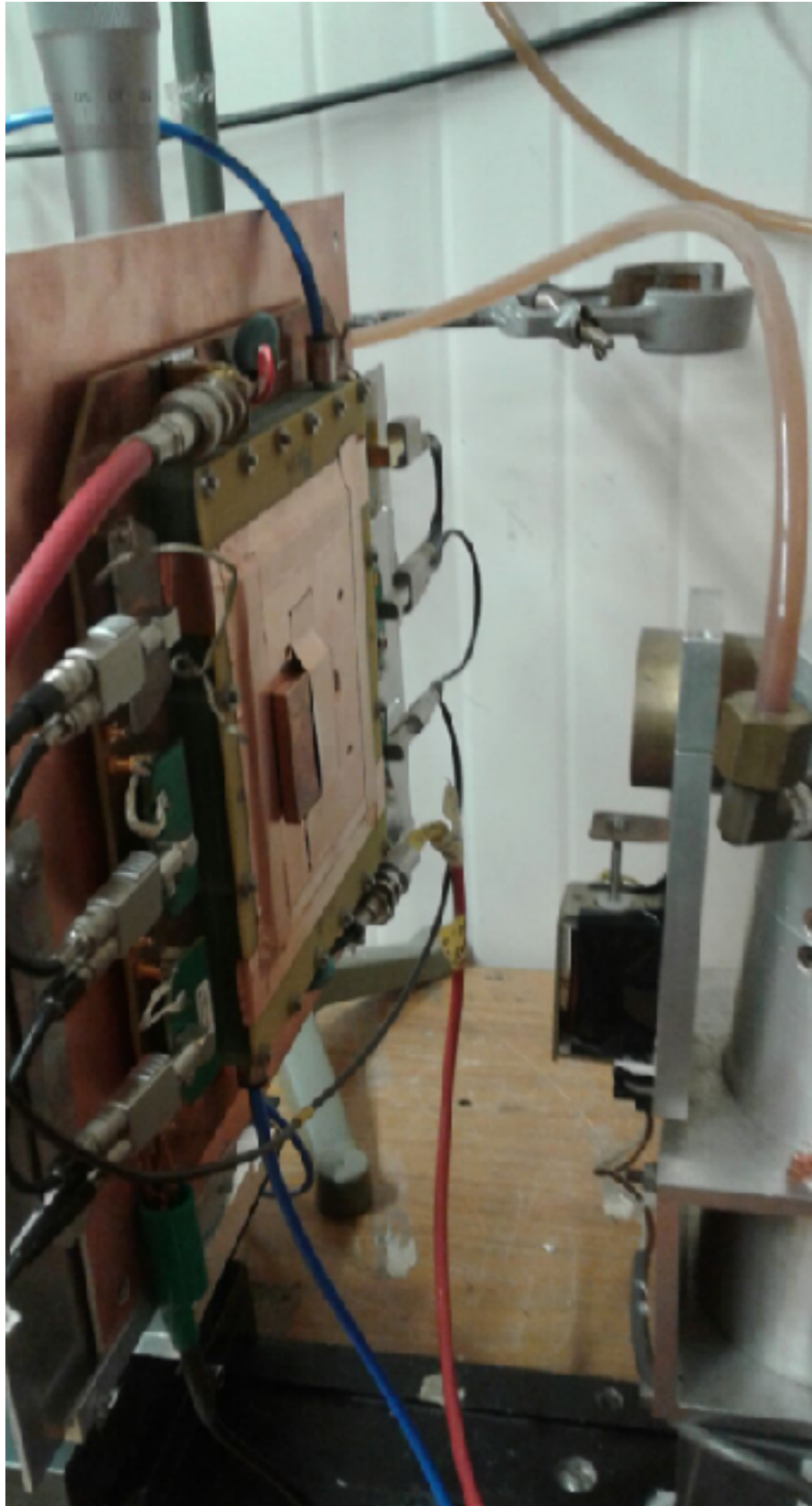


**DLC: more discharges**

# X-Rays (DLC)

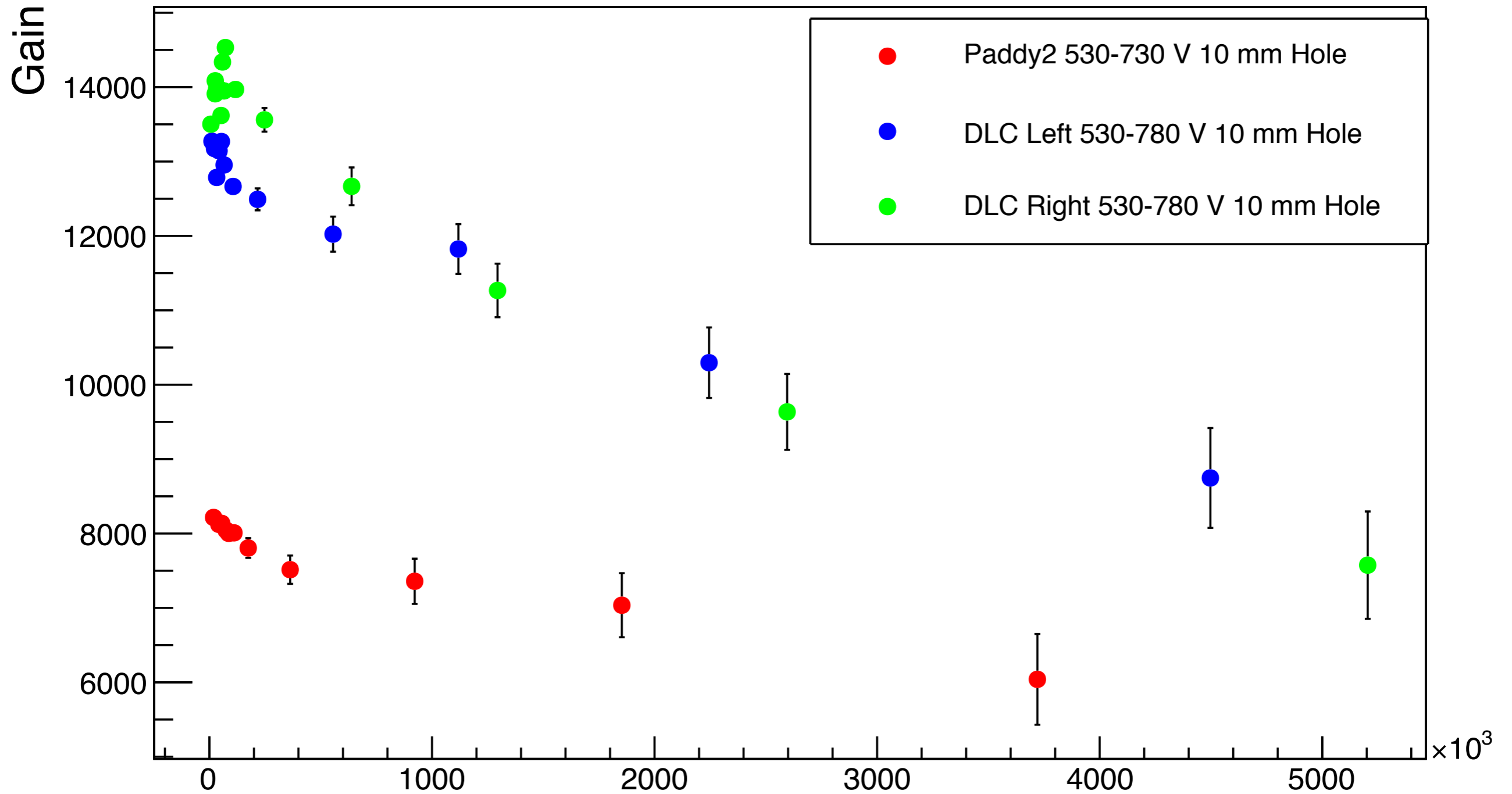
10 mm Hole

3 mm Hole



# X-Rays 10 mm Hole

Gain vs Rate



**DLC: lower rate->higher gain (even if signals are bigger)**

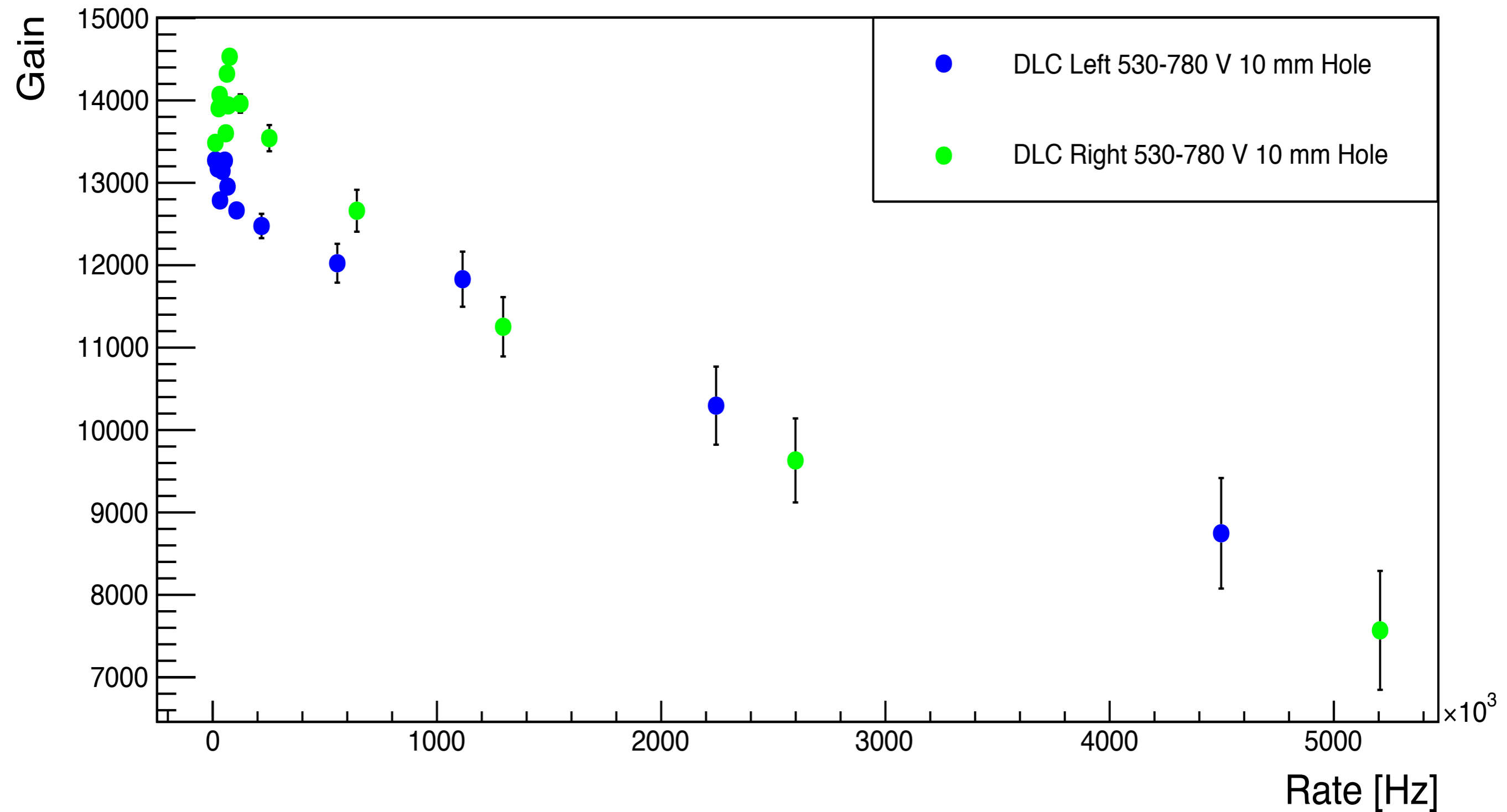
Rate [Hz]

**Same behaviour using Fe55 sources**



# X-Rays 10 mm Hole DLC

Gain vs Rate



**BACKUP**