

# NEON(R&D)

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# R&D NaI(Tl) Crystal(NEO-2)

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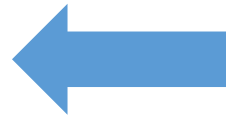
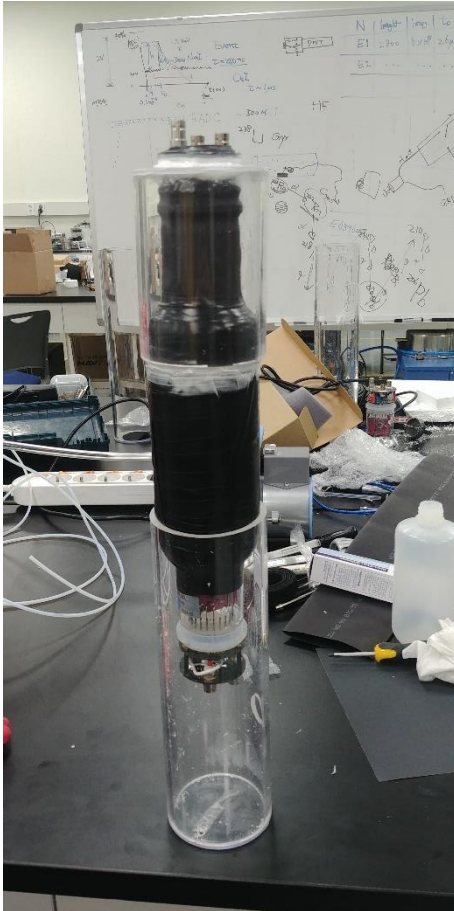


- Cleaning(Cu)
- Crystal has crack
- After encapsulation is finished, we will measure crystal background in Y2L next monday



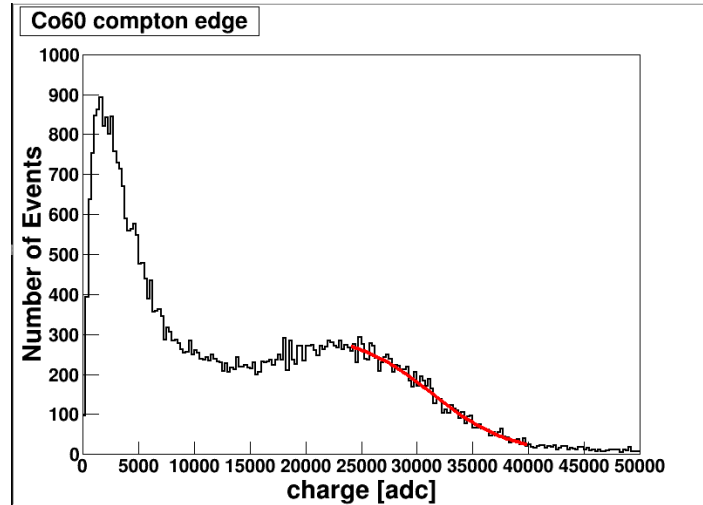
# R&D NaI(Tl) Crystal(LS test)

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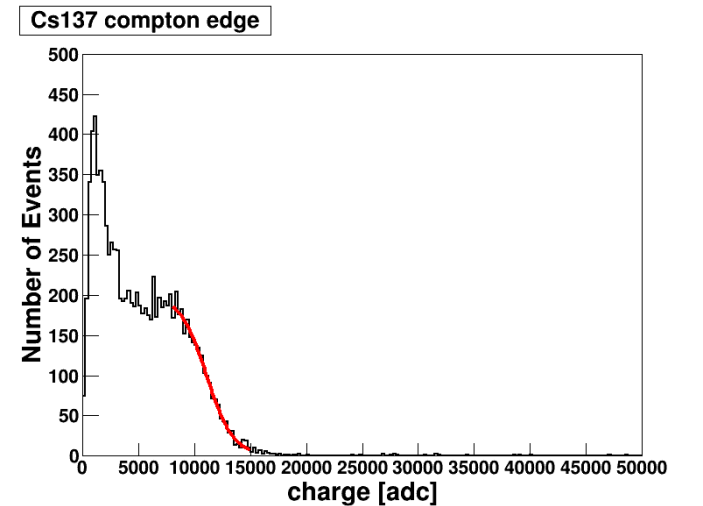
Acrylic

# R&D NaI(Tl) Crystal(LS test)



Co60

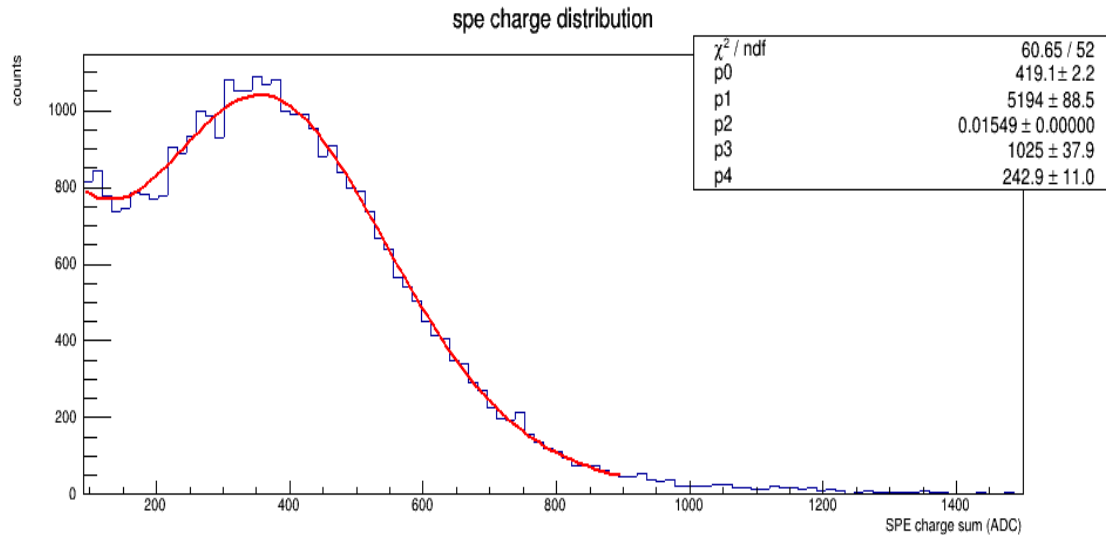
- Mean of fit function :  $3.13673e+04$
- Theoretical Compton edge: 1.04[MeV]



Cs-137

- Mean of fit function :  $1.10672e+04$
- Theoretical Compton edge: 0.48[MeV]

# R&D NaI(Tl) Crystal(PMT test)



- PMT: FA-0150
- Event rate : 120 Hz (12% of LED signal)
- Gain :  $6.2865 \times 10^7 \pm 3.3 \times 10^5$

- Preamp : 30
- HV : 1000[V]
- Function generator : width : 12ns , frequency : 1kHz
- Adc convert to pC :  $2[\text{ns}] \times 2500[\text{mV}] / 4096[\text{adc}] / 50[\text{ohm}] = 0.024[\text{pC}]$
- The electron charge :  $1.6 \times 10^{-7}[\text{pC}]$

# Backup