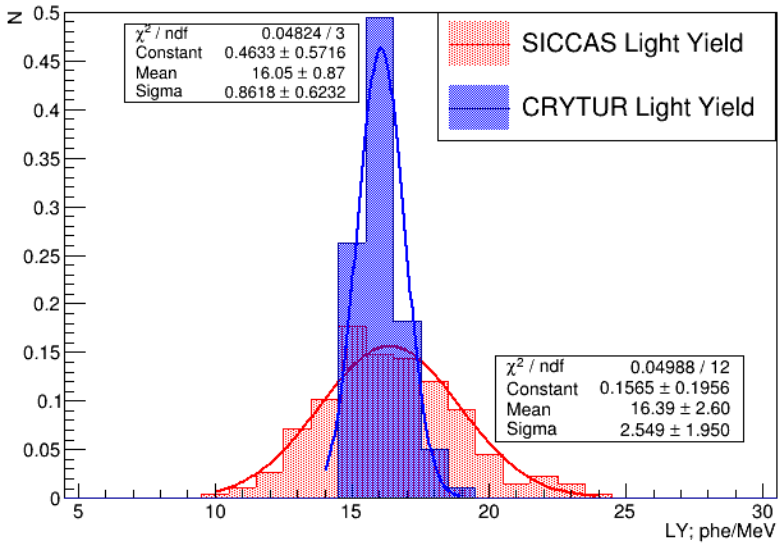
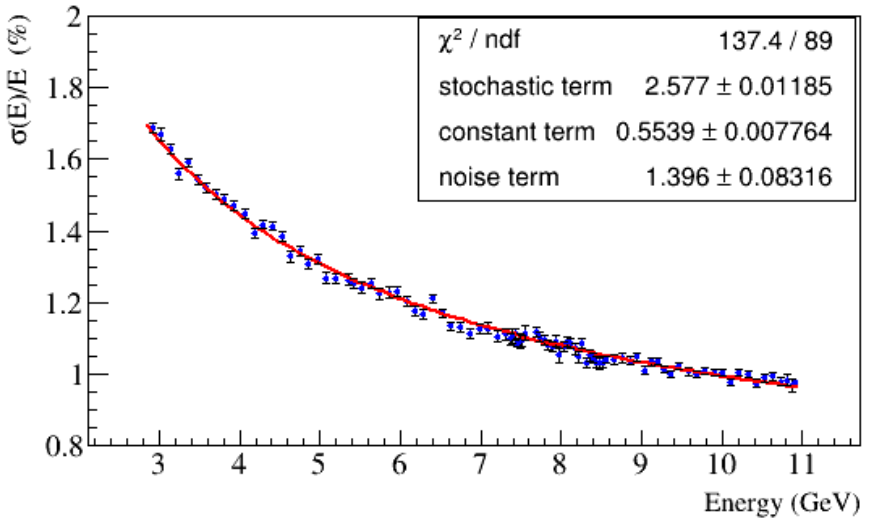
Status of PWO crystals production and delivery





https://halldweb.jlab.org/DocDB/0047/004784/003/ccal_nps.pdf

CRYTUR: 100(Universities)+717(JLab) = **827** crystals
End of August 2021 **1150**
End of 2021 **1300** (*)

All crystals are high quality and uniform

SICCAS: **460(*)**

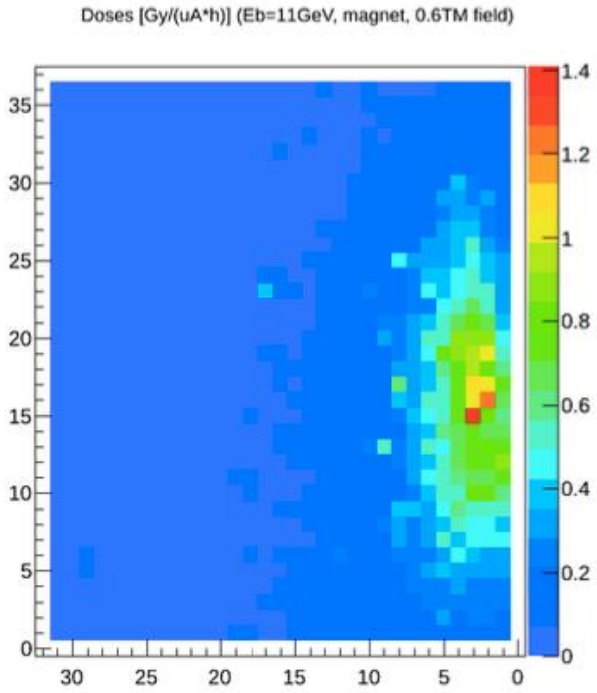
300 Preselected good crystals (140 installed in CCAL)
160 Replacement crystals

Preselected SICCAS crystals showed good performance due 12x12 prototype beam tests.

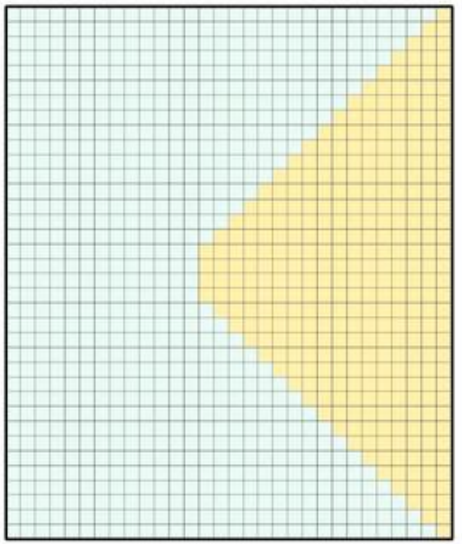
CRYTUR crystals preferably option:
- better radiation resistance compare to SICCAS
- good LY uniformity => better constant term

NPS Colab meeting 2019, first time stacking options discussion

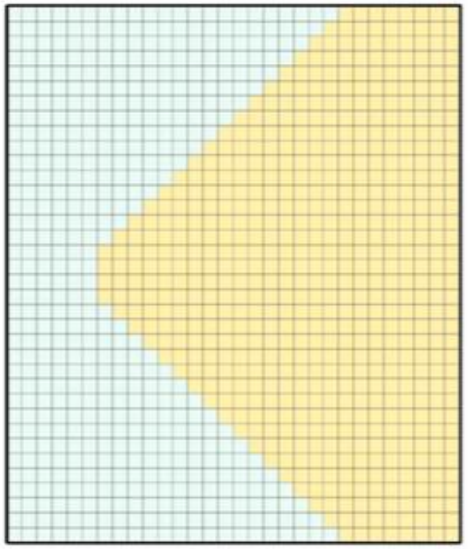
Possible stacking options according to simulated dose rate



340 CRYTUR + *740 SICCAS*



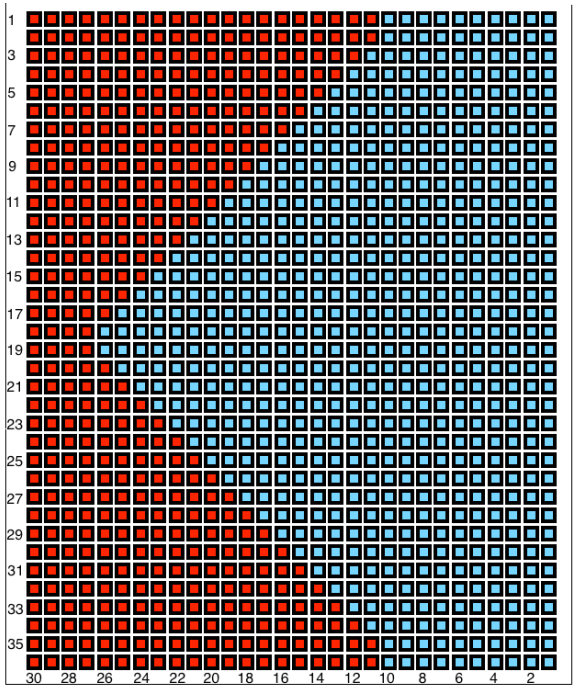
592 CRYTUR + *488 SICCAS*



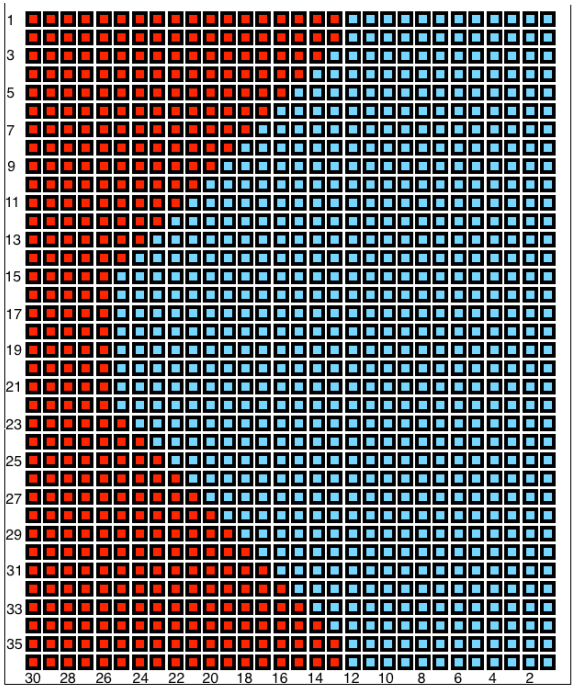
Figures by Hamlet and Vardan

Simulated radiation dose is big for ~10 columns from the beam line (only CRYTUR will work fine)

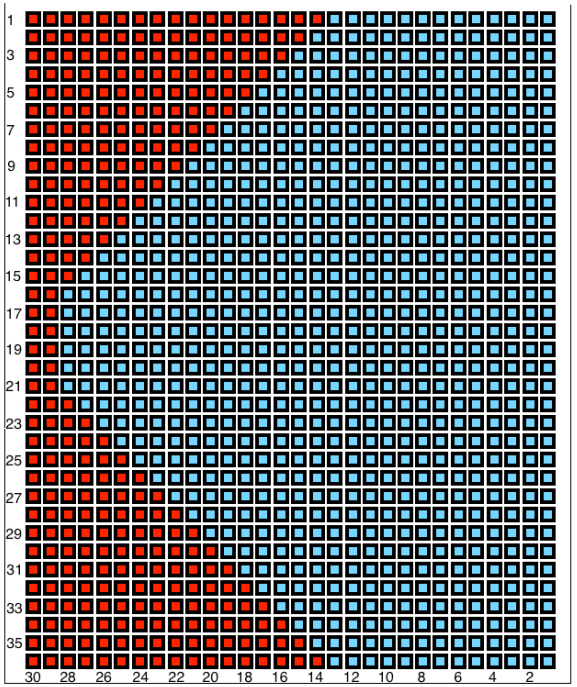
448+632



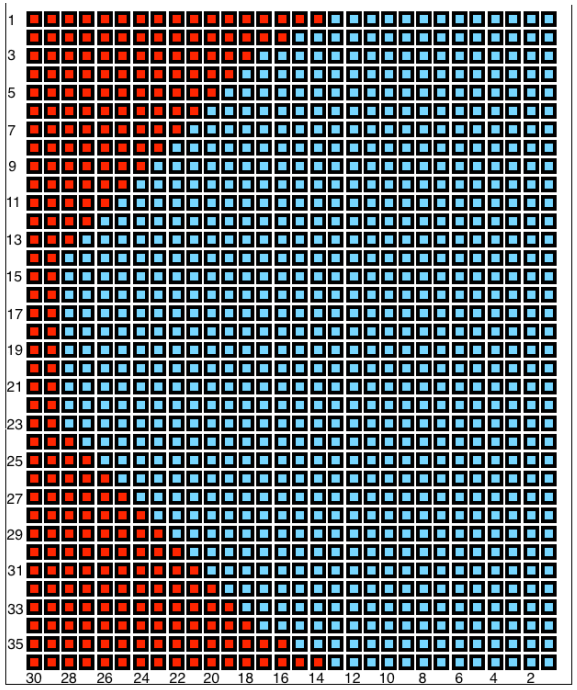
388+692



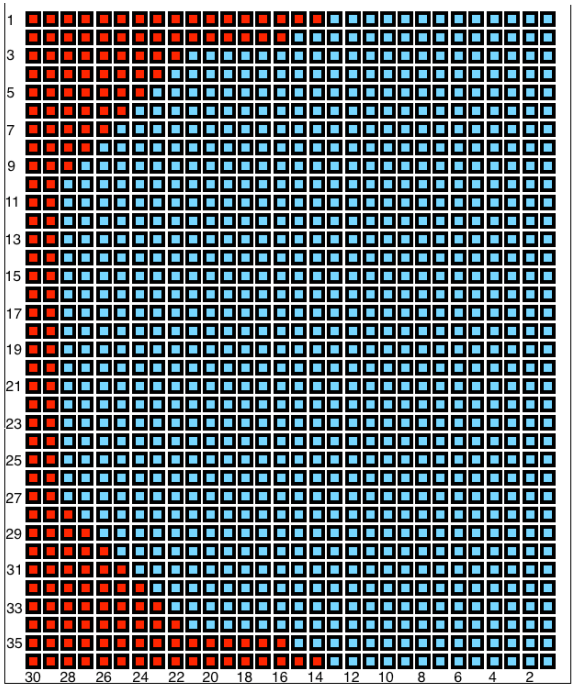
312+768



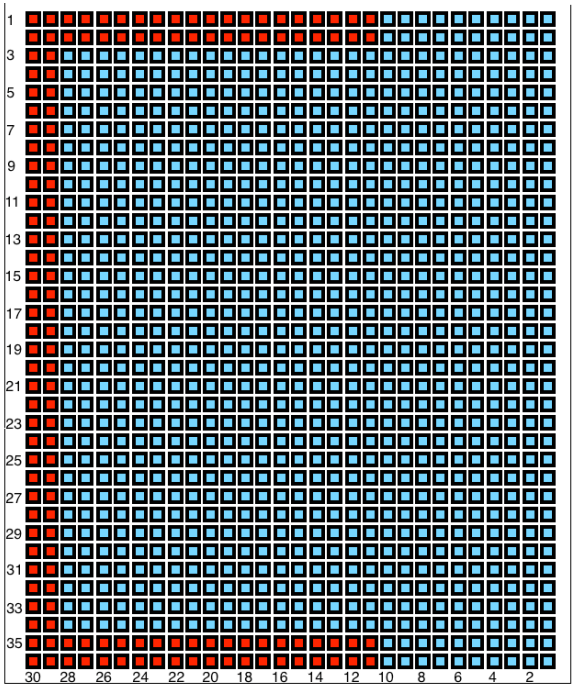
260+820



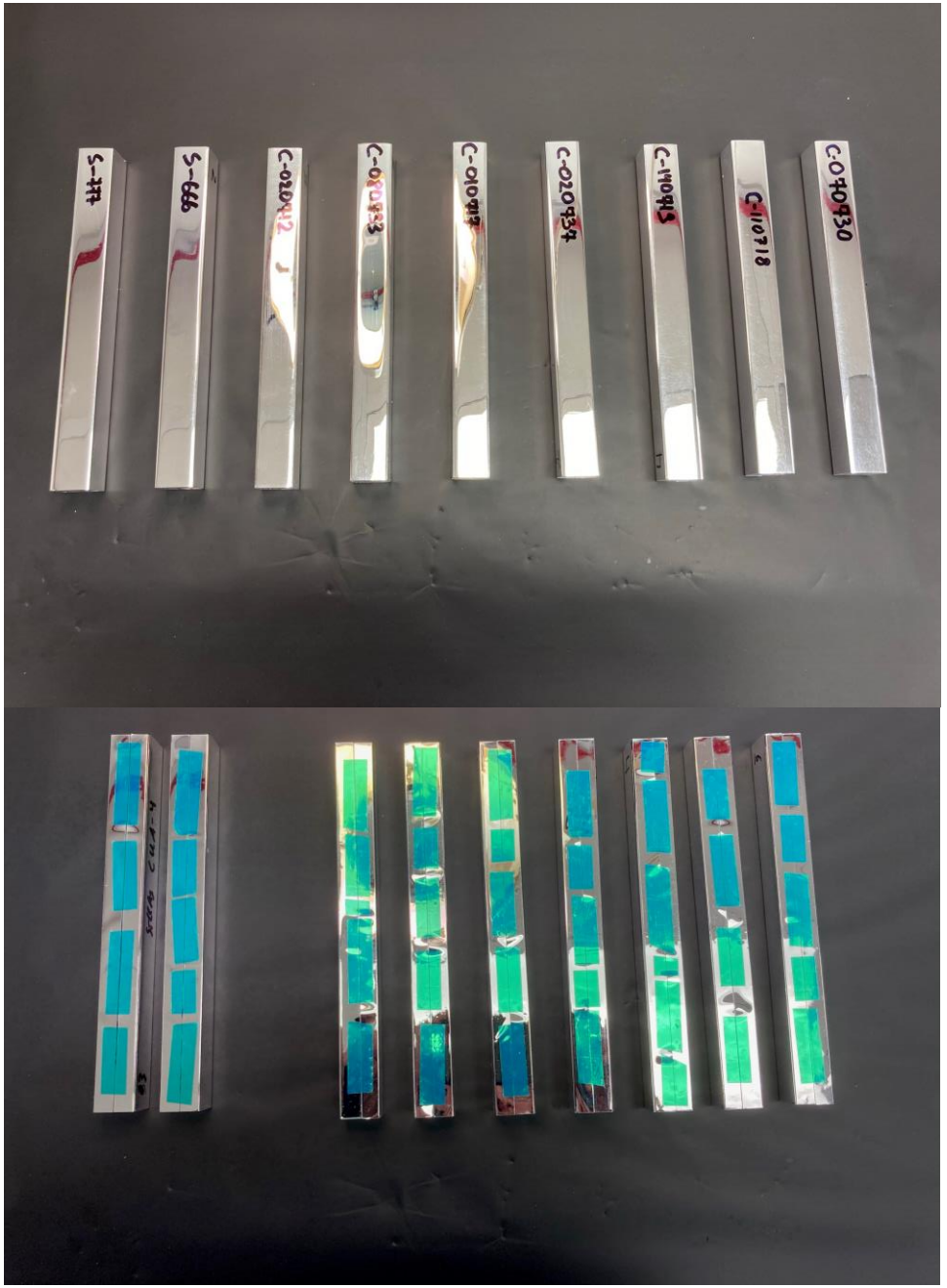
204+876



144+936



Discussion topics:



- How many CRYTUR crystals will be used?
- Man power, who will be involved in the stacking?
- What the best stacking strategy, approximate rate per day?
- What the best wrapping method? Do we need to have additional Tedlar wrapping?
- Do we need cleanroom operations for crystal cleaning and wrapping?
- How COVID restrictions will affect the work flow?