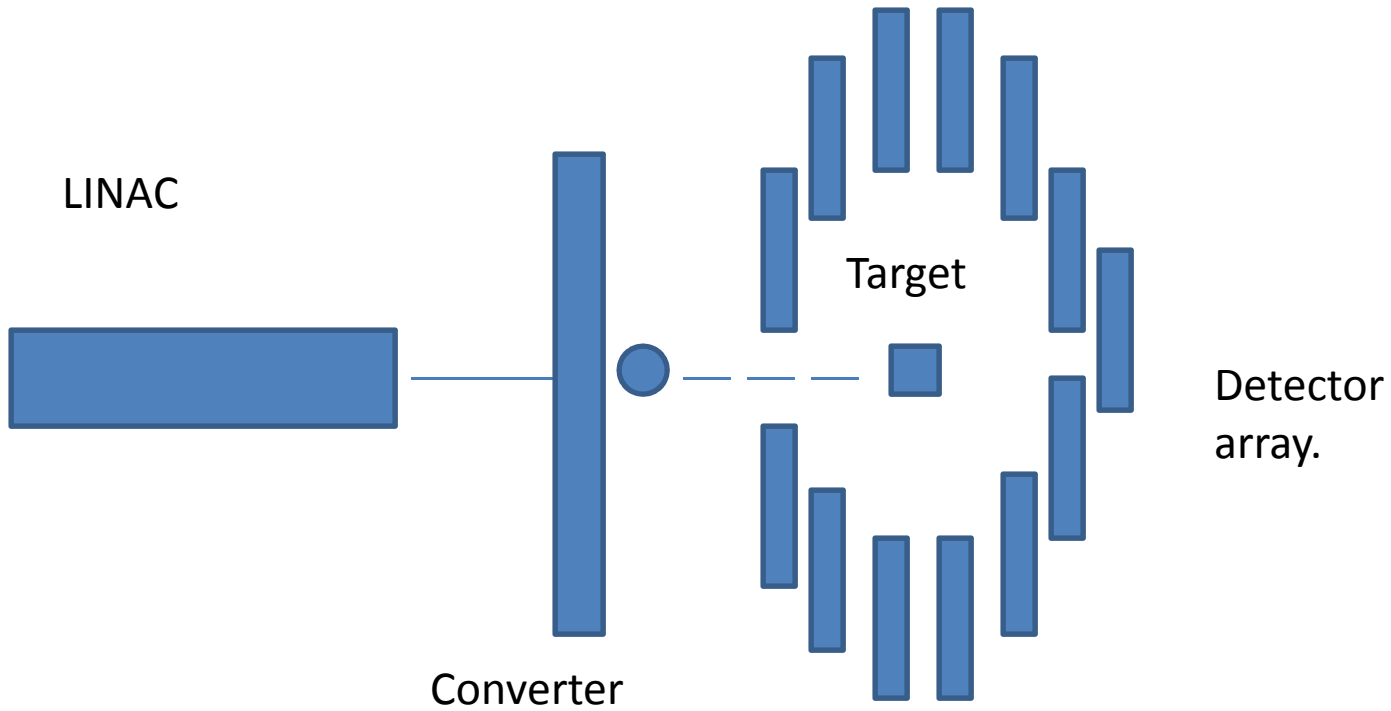


Photofission and Neutron Detection

Jason Stock

Building a detector.



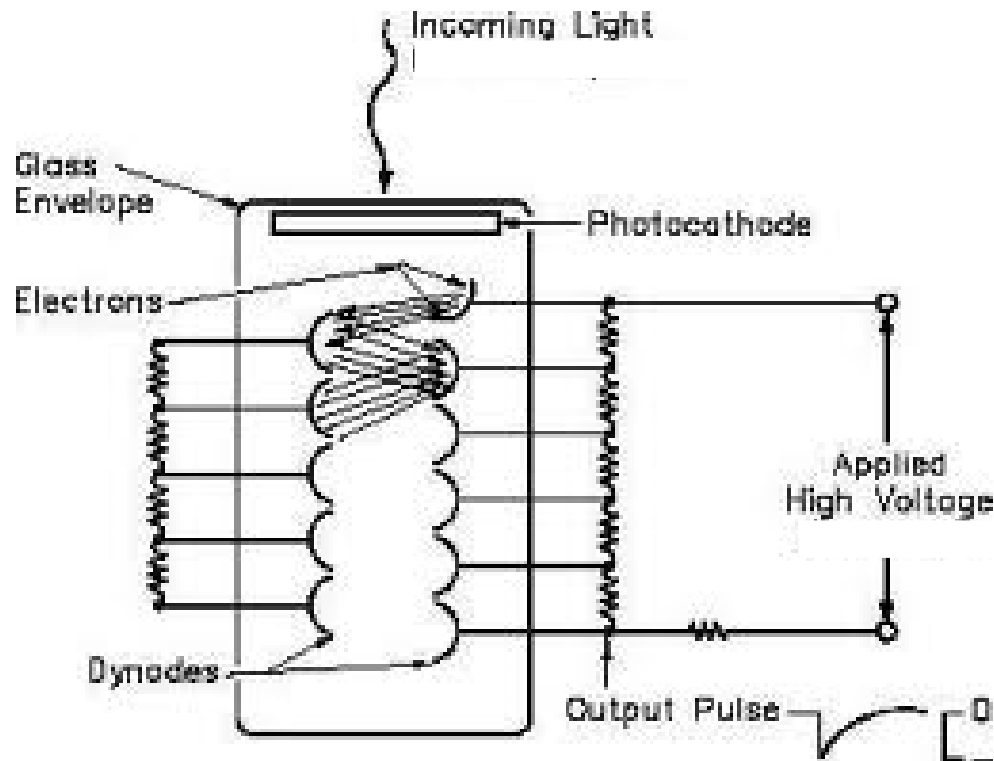
What we need.

- Scintillators
- PMT's
- Bases
- Data acquisitions Equipment.

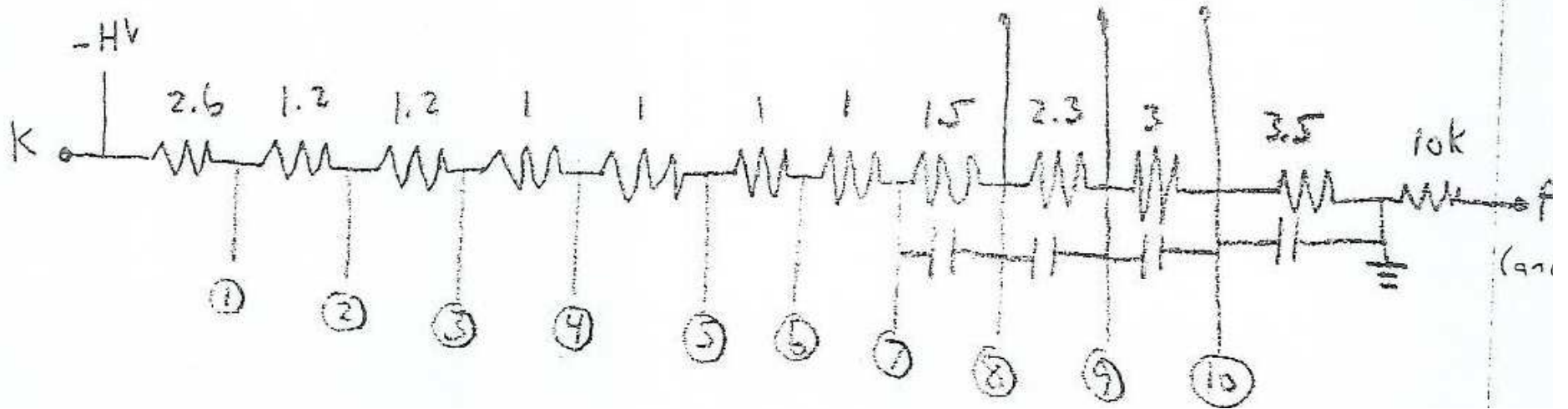
What we don't have.

- Bases. (Units to regulate the voltage to each dynode on the PMT)

What is a PMT and why does it need a base.

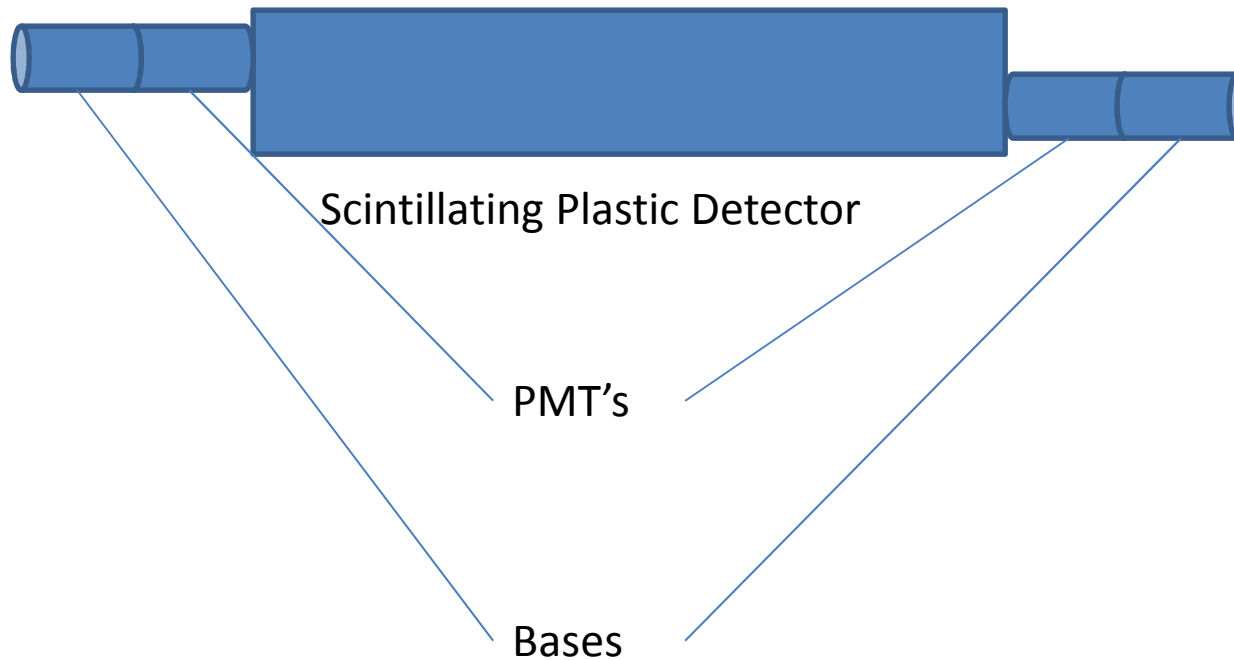


Base

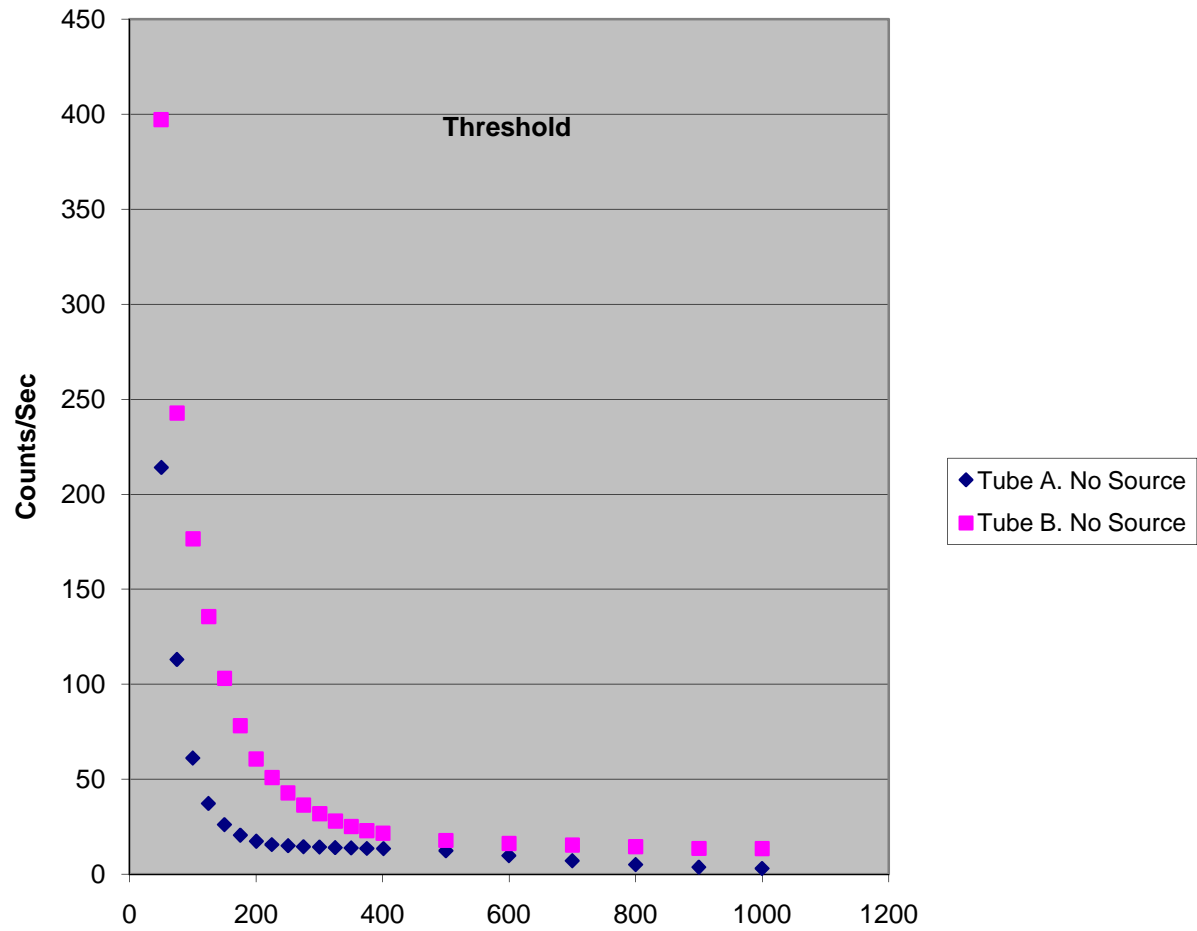


Sketch from Dr. Dale.

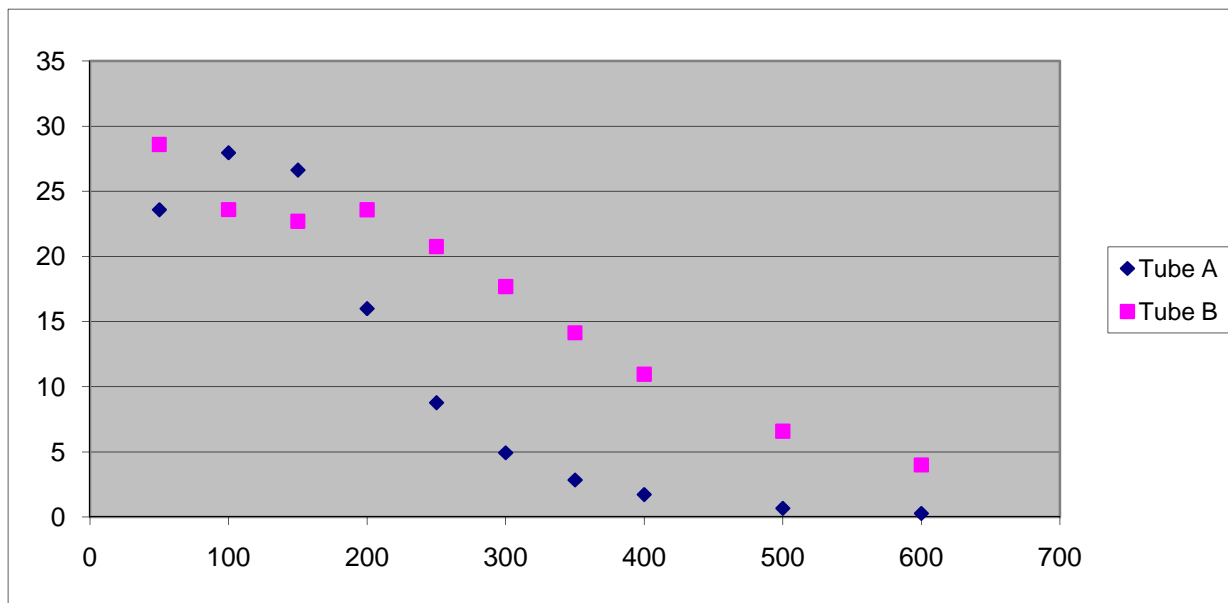
Step # 2. Building and Calibration of The Detectors.



Counts/Time Vs. Threshold



Counts Per Second.



Discriminating Threshold

Currently.

- Optimizations charts, additional PMT Bases
- Light guides?
- PMT removal and attachment. (drawbacks and benefits.)

NEXT!!!!

- Plain and simple. Mass production. A total of 16 detectors with 2 PMT's each to build the detector array.

Thank you to

- Dr. Dan Dale
- Dr. Tony Forest
- Dr. Steve Shropshire
- Phillip Starivoitov
- Evan Scott
- Jarrett Moon