

# Plastic Muon Veto

*Status report*

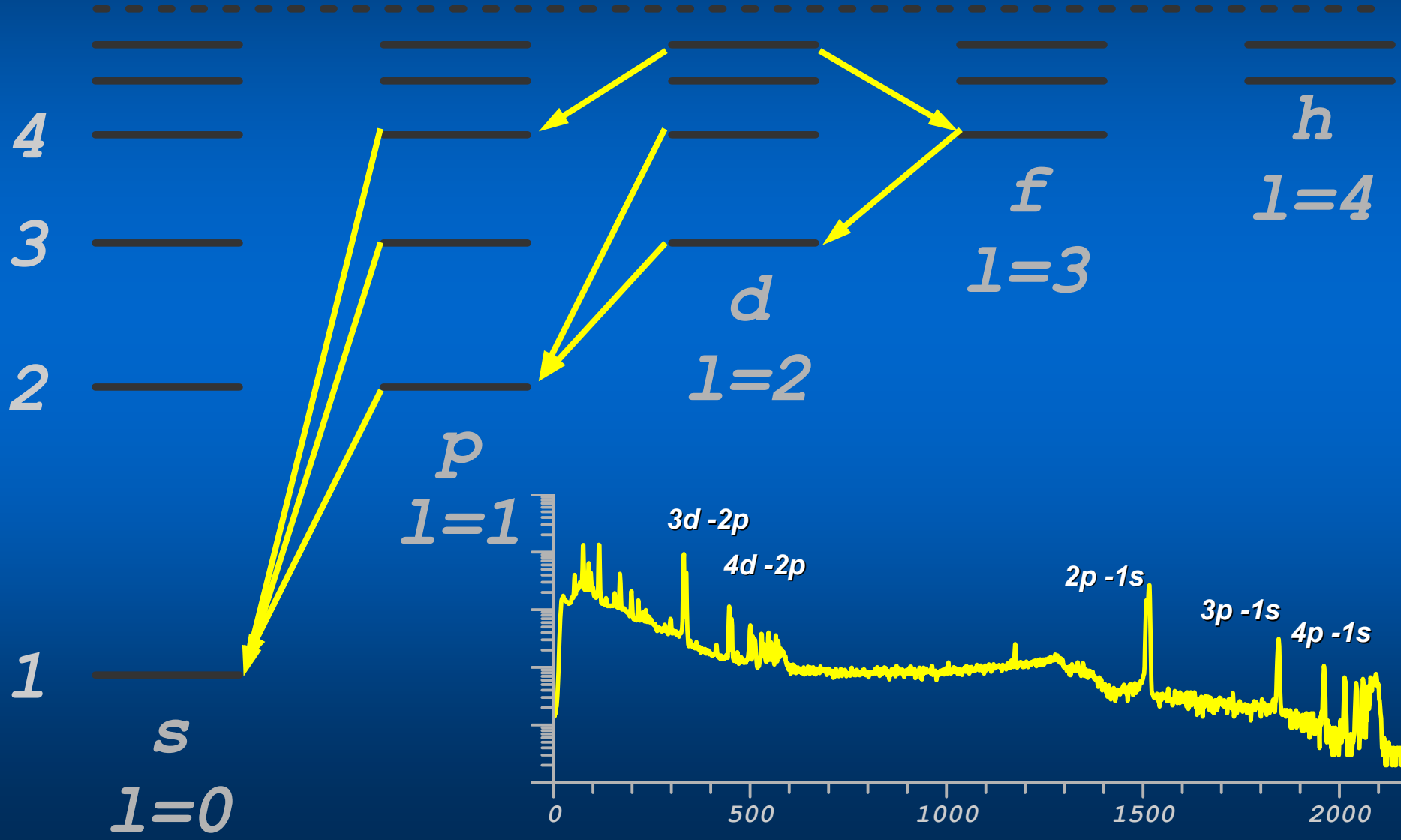
# Cosmic muons ( $\mu^-$ and $\mu^+$ )

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- **Cross the detector**  
~ 2 MeV per g/cm<sup>2</sup>
- **Produce shower**
- **Stop in surroundings**



$n$  (continuum)

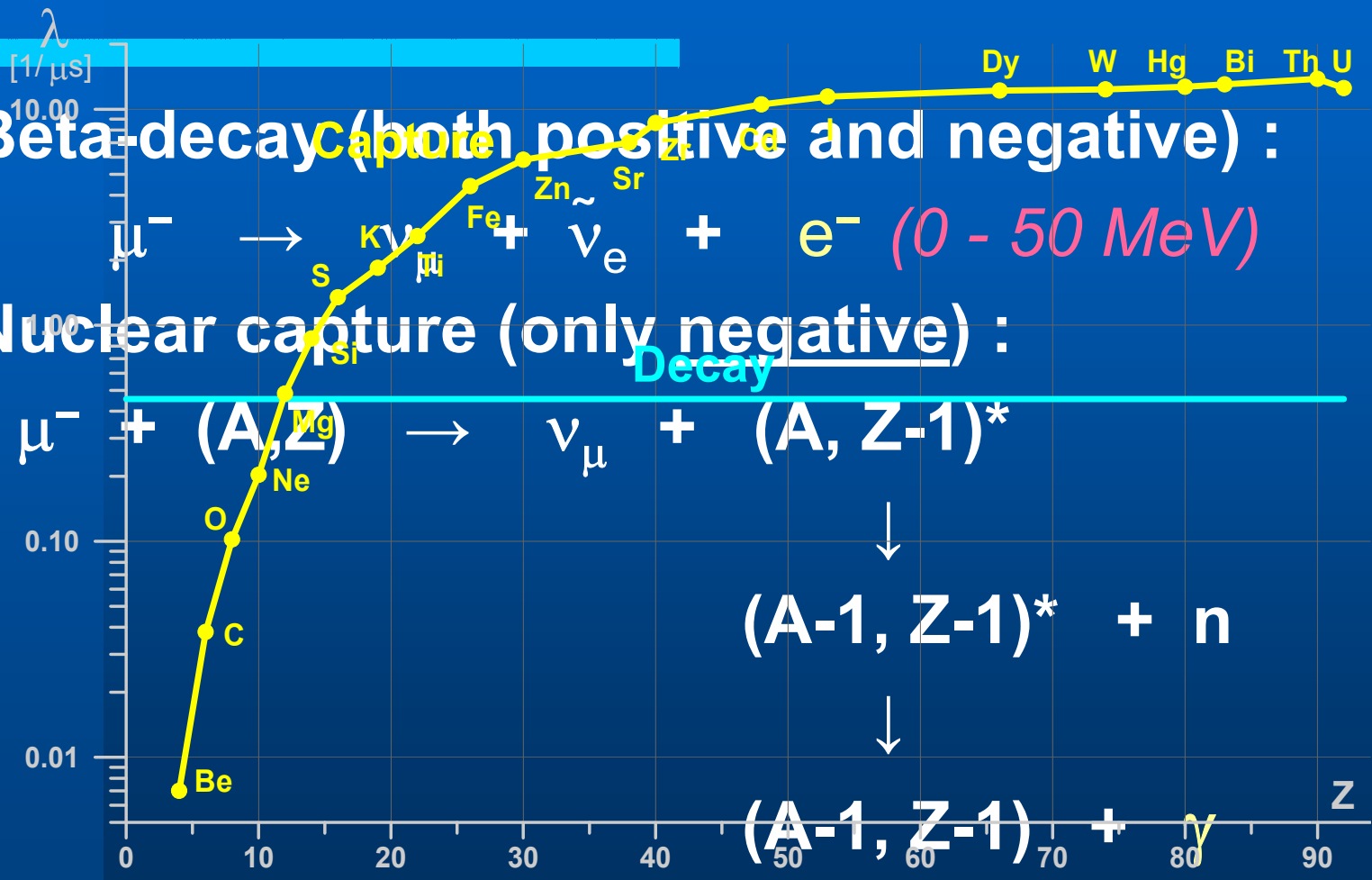
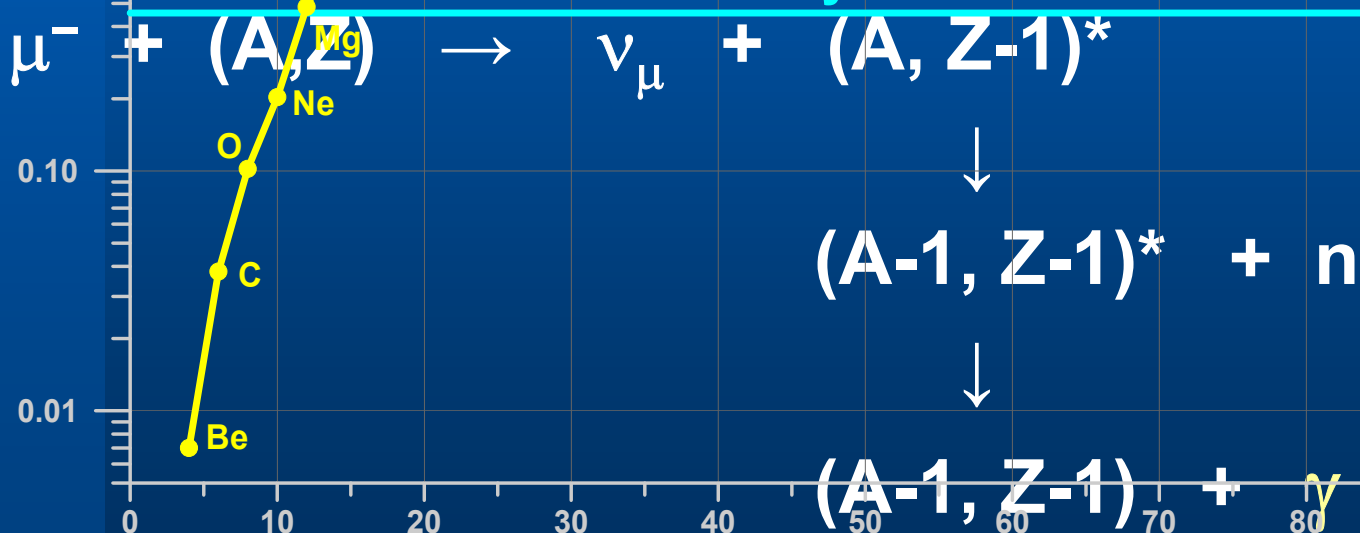


# Two possible destinies of the muon stopped in a target:

- **Beta-decay (both positive and negative) :**



- **Nuclear capture (only negative) :**



***Total Correlated Spectrum (MuX + Gamma)-rays***

***Delayed Gamma-rays***

***Prompt MuX-rays***

10000

1000

100

10

0

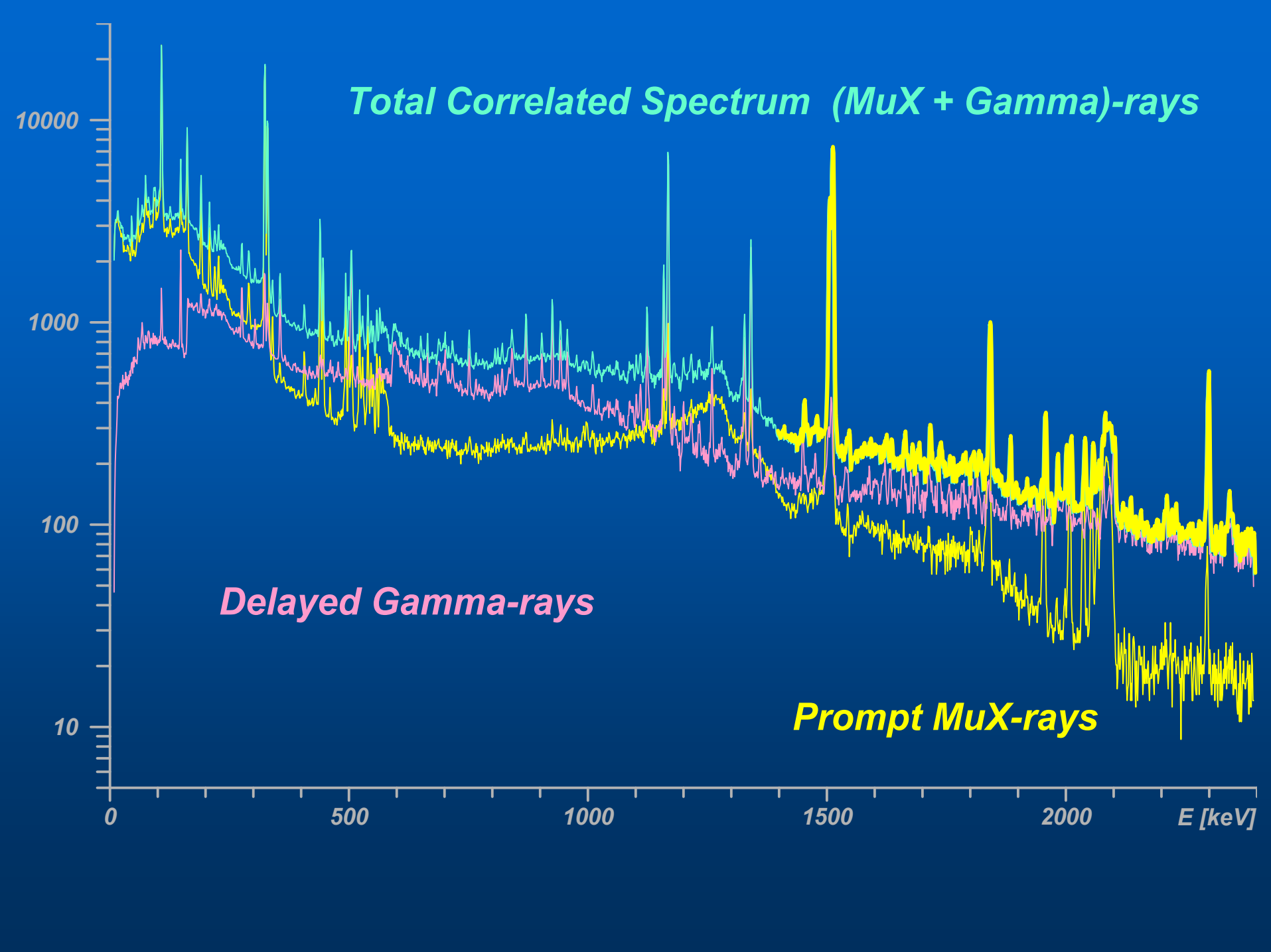
500

1000

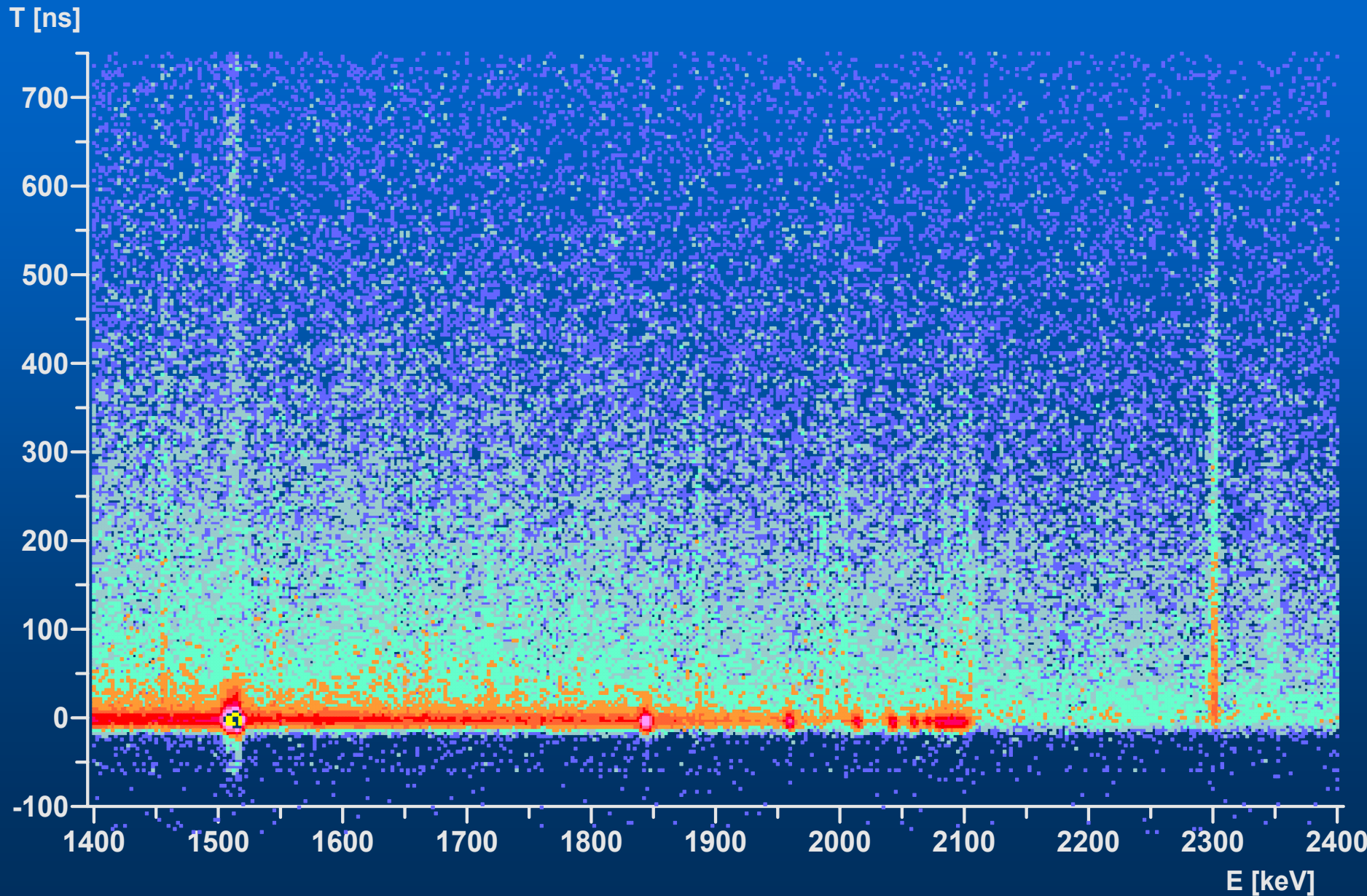
1500

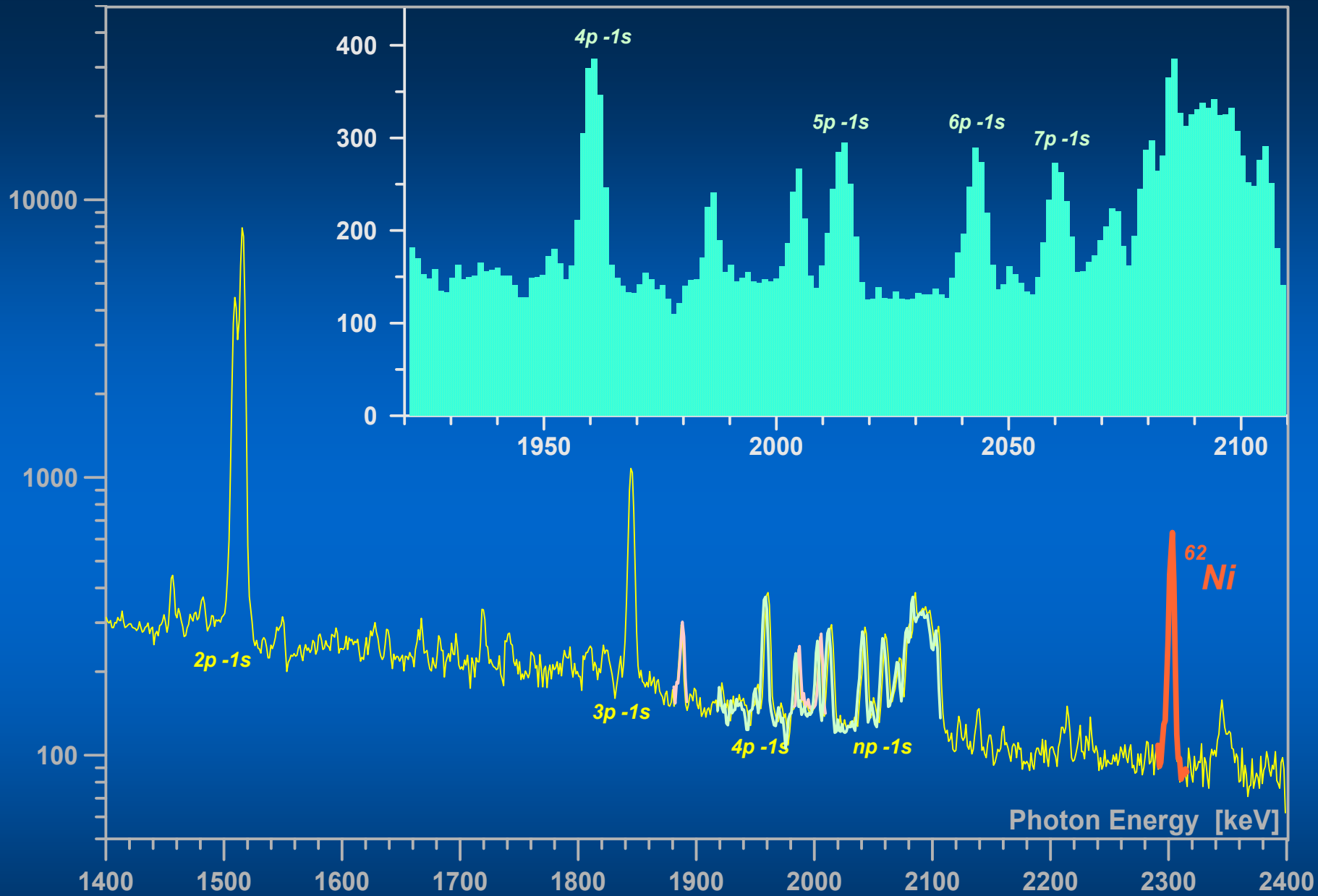
2000

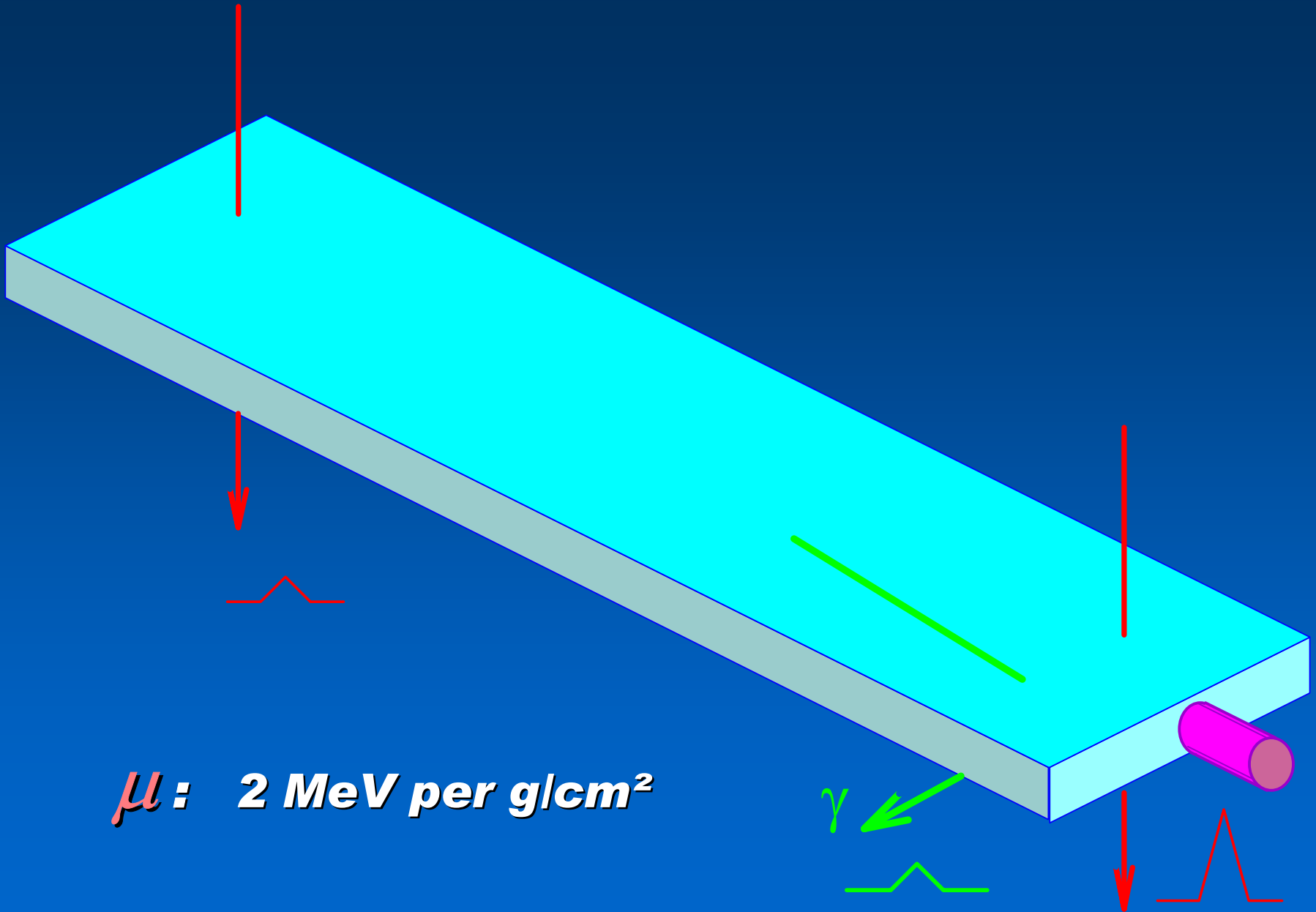
*E [keV]*



# $\mu$ X- and $\gamma$ -rays following $\mu$ -stops in copper target



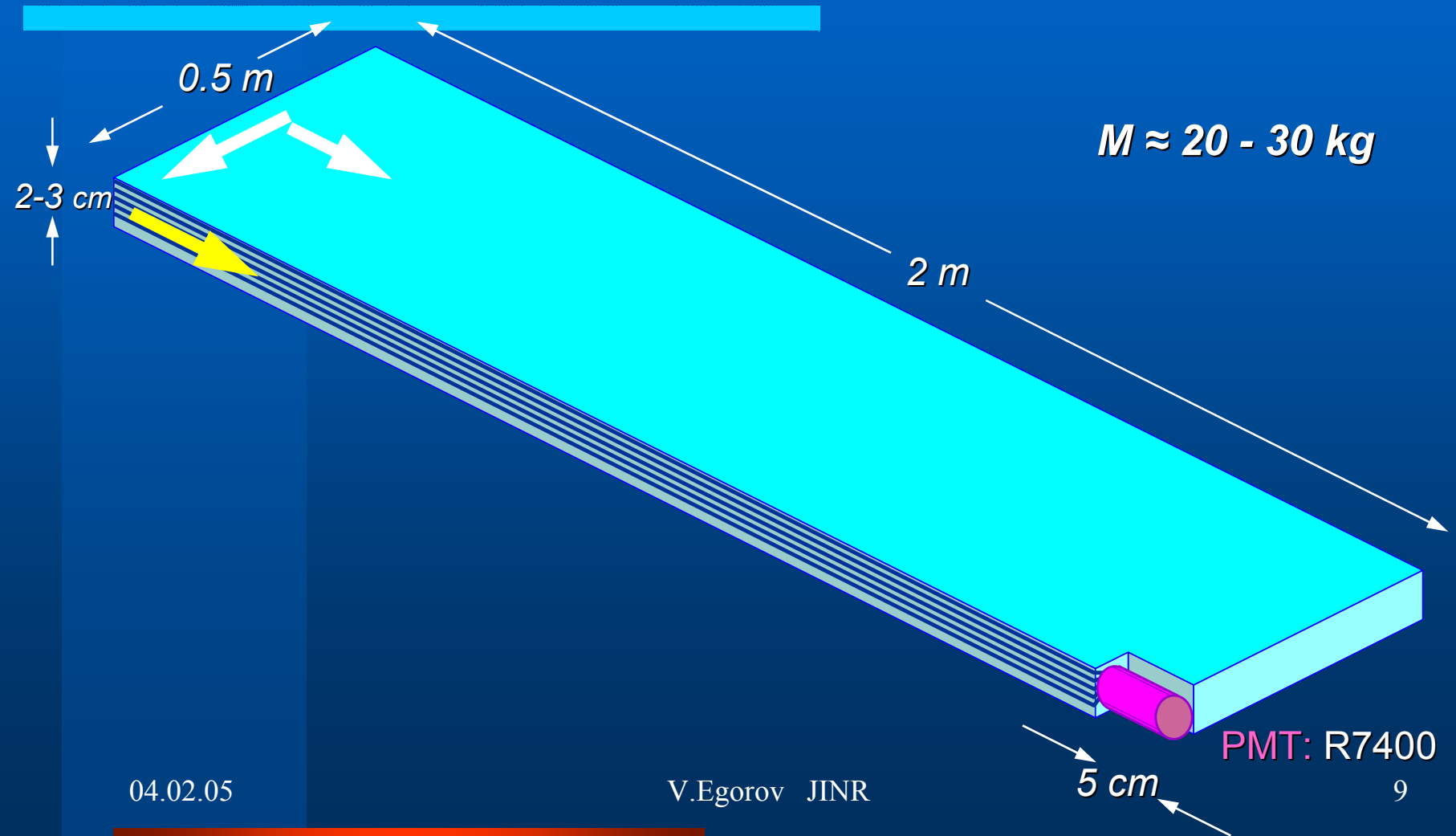


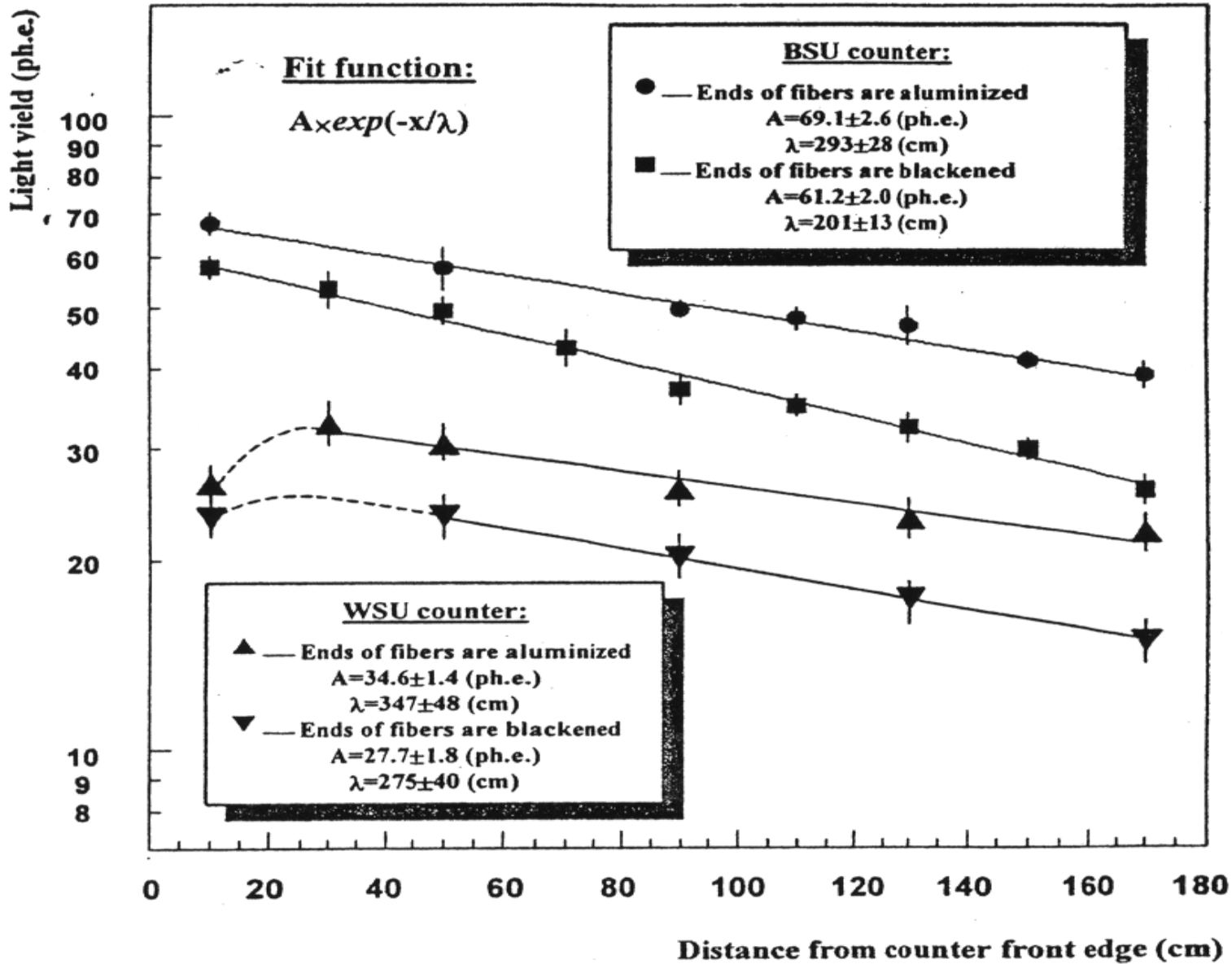


$\mu: 2 \text{ MeV per glcm}^2$

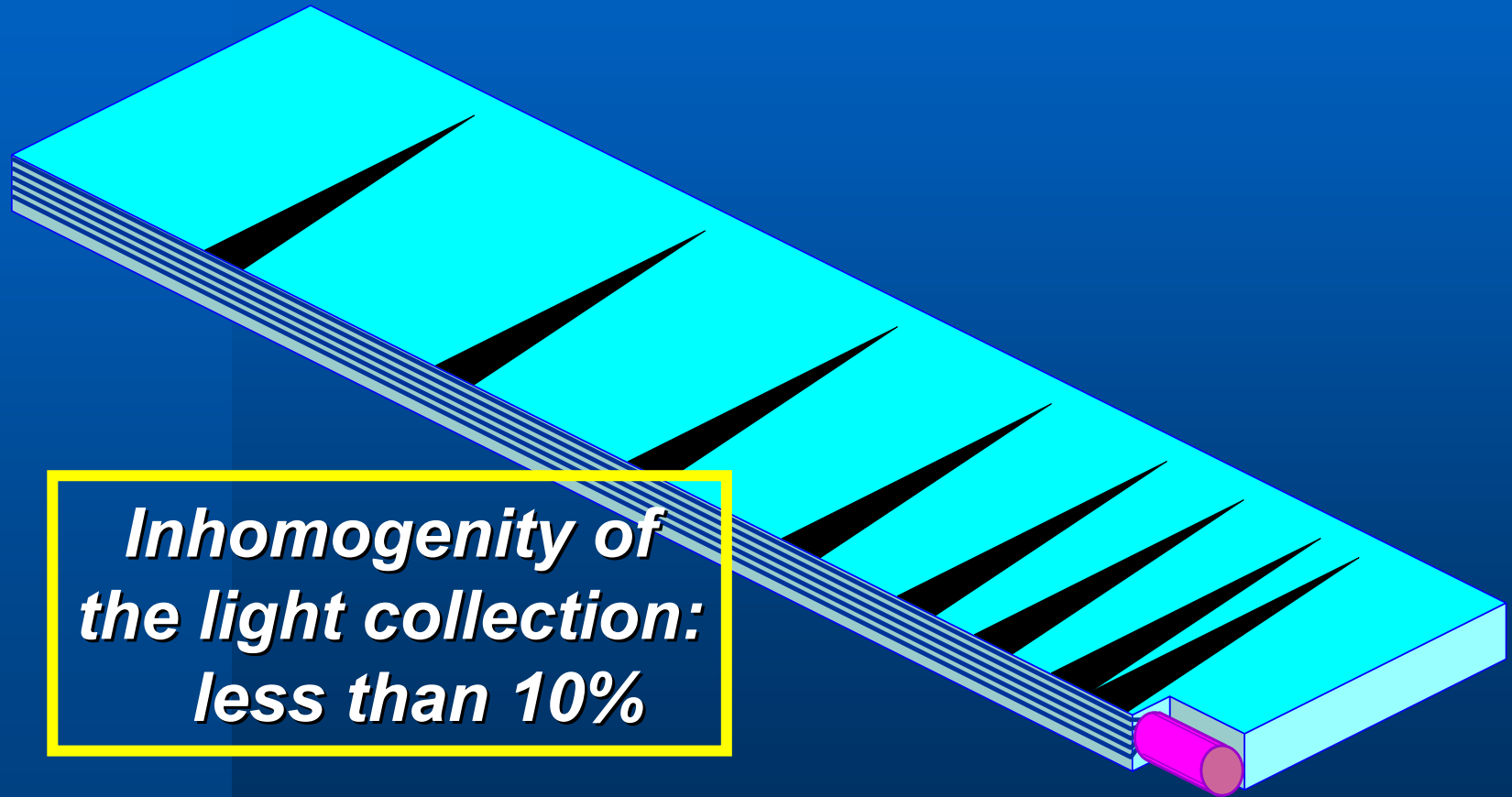


# Light collection with fibers

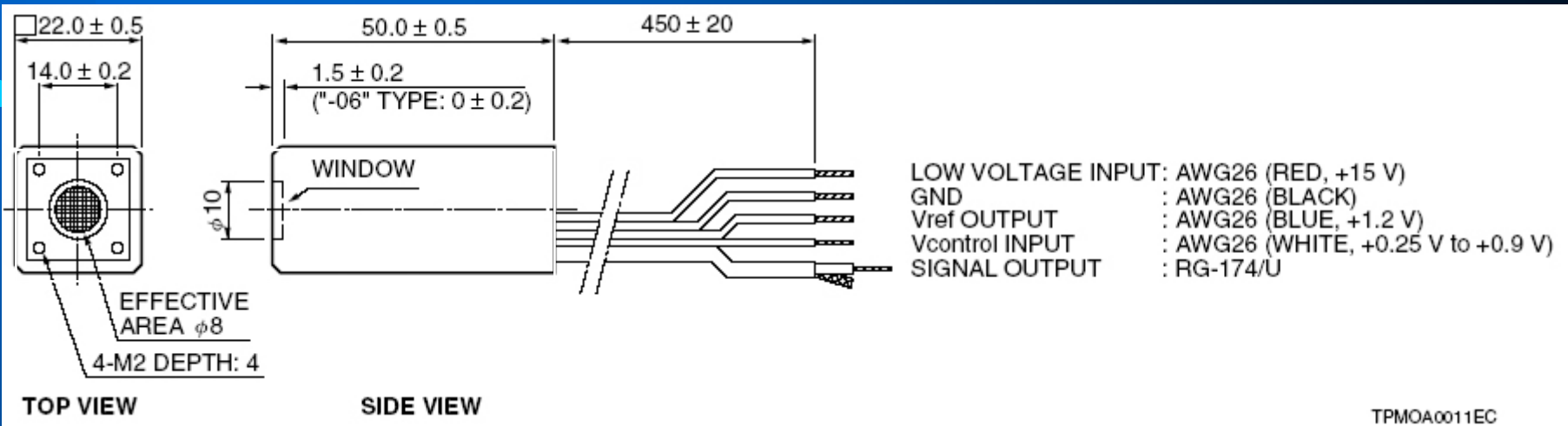




# Levelling of the light collection



# Hamamatsu PMT module H6780-20



- PMT R7400-20
- HV divider
- HV power supply
- (Amplifier)

