Activity of the Measurement Coordination Panel

F.Bellini

"Sapienza" Università di Roma & INFN Roma

ISOTTA meeting *Paris 18/12/2013*

Role and Members

- The Role of the Measurement Coordination Panel is to promote the exchanges of material, information, protocols and procedures among the various labs and to propose to the EB scientific initiatives within the project objectives, emphasizing the integration of the various techniques
- Members
  - Fabio Bellini (WP1)
  - Massimiliano Clemenza (WP2)
  - Jerzy Woiciech Mietelski (WP3)
  - Xavier Sarazin (WP4)
  - Luca Gironi (WP5)
  - Fedor Danevich represents the associated partner KINR
  - Dmitry Chernyak partially hired on ISOTTA funds
  - A Polish PhD or Post-Doc (missing) partially hired on ISOTTA funds

Crystal exchanges

We decide to exchange assembled detectors instead of bare crystals:

useful to understand performances with different cryogenic/electronic/DAQ setup

problem: we use to dismount detectors once tested

available crystals: https://copy.com/zYNVFJc1Vg6x7KGd

- LUCIFER light detector tested at LNGS will be measured at CSNSM(January)
- 2 LUMINEU $ZnMO_4$ crystals(160g and 55 g) seen by a single light detector will be tested at LNGS(January)
- 2 $^{116}CdWO_4$ crystals coming from the head and the tail of the same boule
  - Very irregular shape. First test in CSNSM not successful. Another test with new holder will be done. Then it will be tested at LNGS.
  - If this will take a too long time it will be measured at LNGS directly, next possible time lot: January

Measurement with BiPo detector

2 possible measurements identified:

- the LUCIFER reflecting foil
  - New reflecting foil purchased, not yet delivered
  - 10 foils: 17" X 17"
  - thickness: 65 μm
  - ρ=?

- the PET film used to cover CUORE Cu frames
  - commercial PET
  - thickness: 11-13 μm
  - ρ=1.38 g/cm^3

ICPMS Measurement in Poland

Available powders: https://copy.com/x4JUmVwIwvZVAPj0

- TeO_2 powder enriched in ^{130}Te
- Metallic Tellurium (natural)
- Metallic Te powder enriched in ^{130}Te
- TeO_2 crystal powder, crystal enriched in $^{128(130)}Te$
- TeO_2 crystal chip, (small) big crystal enriched in $^{128(130)}Te$
- Metallic Se powder
- Solid Metallic Zn
- SeZn powder
- $^{100}MoO_3$ powder
- $^{106(116)}CdWO_4$ crystal