

R&D Activities and Plan

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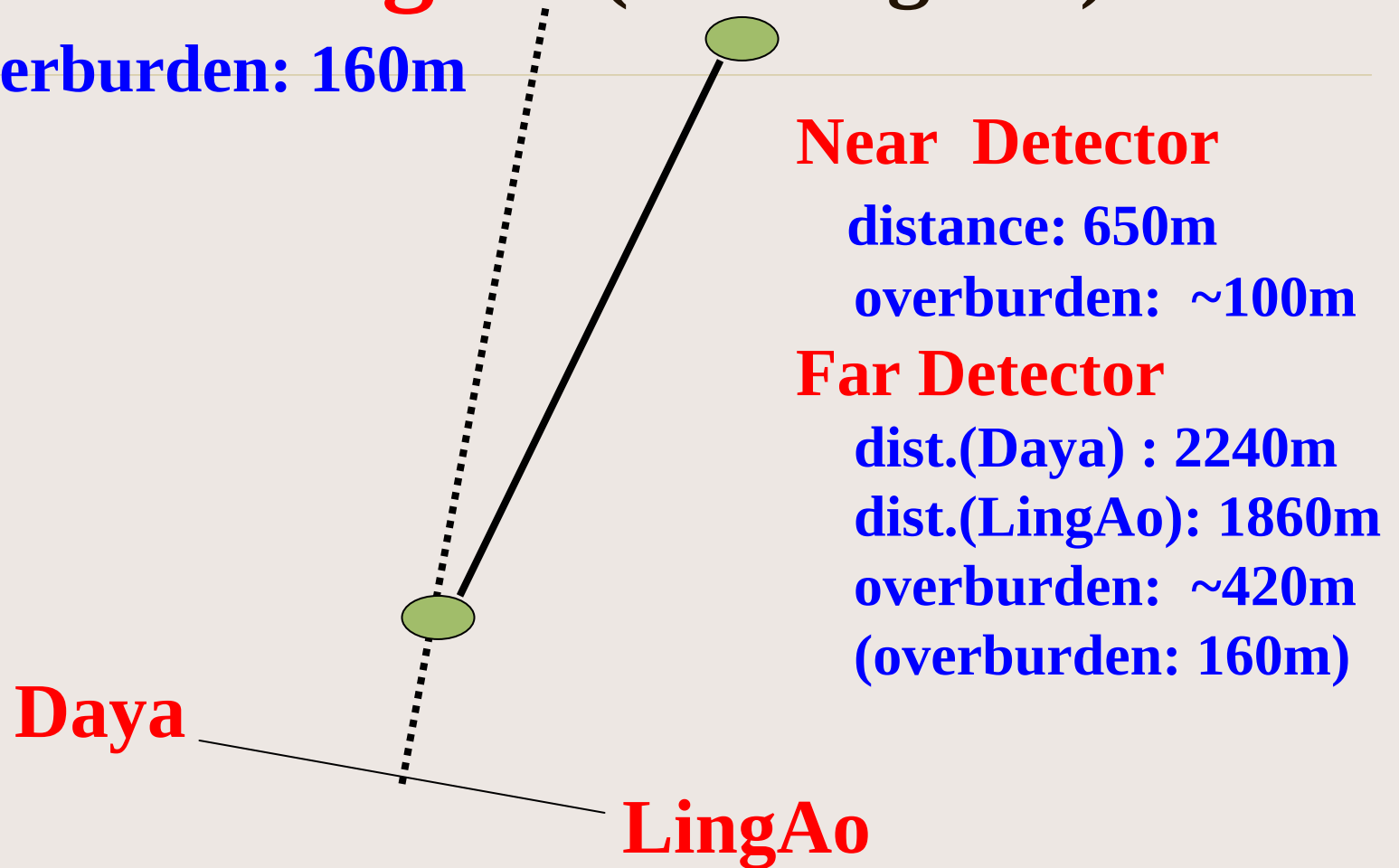


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**LingAo2
(2010?)**

Design 1 (No LingAo2)

Overburden: 160m



Design 2 (With LingAo2)

Overburden: ~200m

Near Detector(Both)

distance: 500m

overburden: 95m

Far Detector

dist.(Daya) : 2240m

dist.(LingAo): 1860m

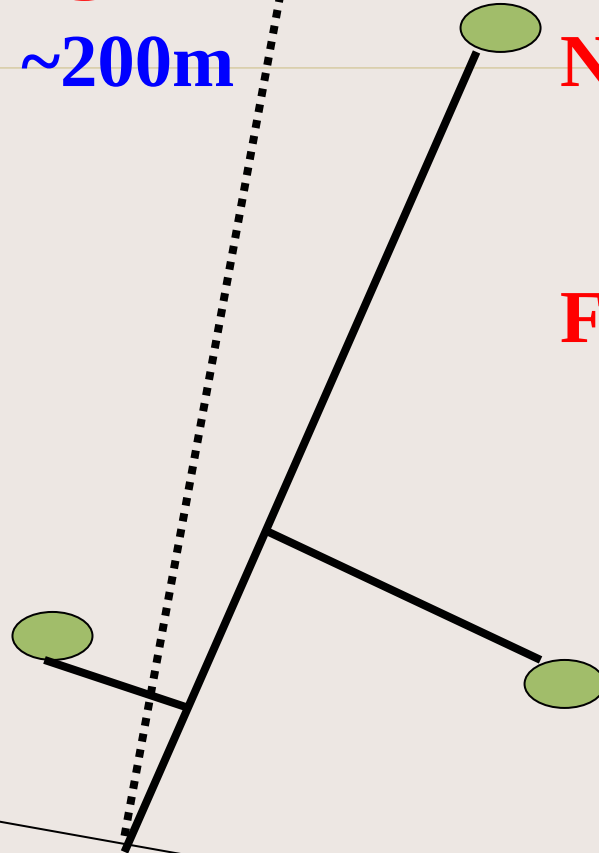
overburden: ~420m

(overburden: ~200m)

Daya

LingAo

LingAo2



Liquid Scintillator

1. Palo Verde type:
Gd(0.1%) + PC(40%) + n-paraffin(60%)
2. GdCl₃ + fluor + Organic solvent
High Gd : 5-10% (no Ge separation)
Stable
Easy mixing
High H/C ratio

Light attenuation length(? , further investigation)
On-line purification and dust removal(?)

Liquid Scintillator Tank

1. Normal acrylic painted with epoxy to resist the pseudocumene
2. Epoxy mould

Out Tank

1. Polyethylene rotomolding
2. Glass fibre reinforced plastic

MC simulation(detector design),
calibration, trigger etc.

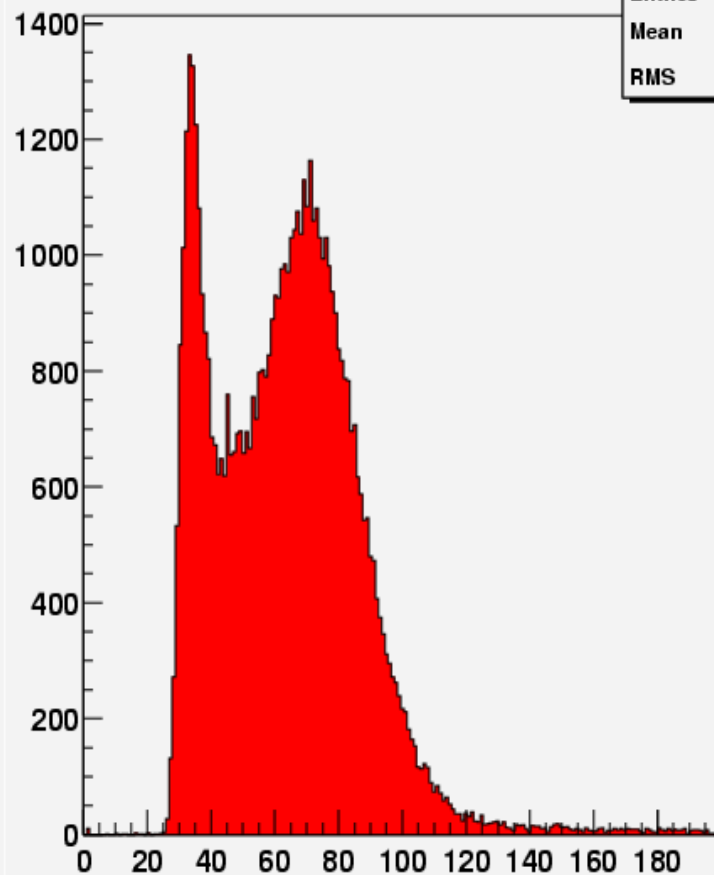
A Prototype(1:1)

with normal 8" PMT

- Experience on the Gd loaded scintillator
- Performance of the module
- Calibration
- Tank mechanics
- Experience on

PMT s.p.e.

one



two

