

LXe R&D

Info update

Funding

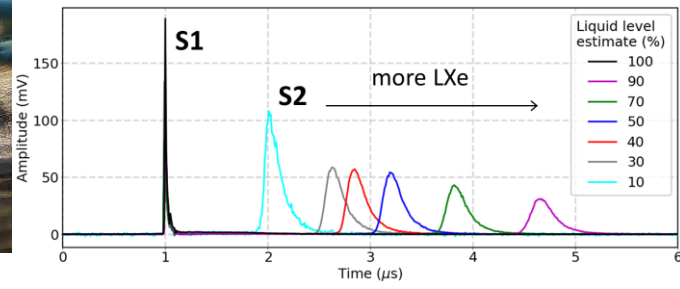
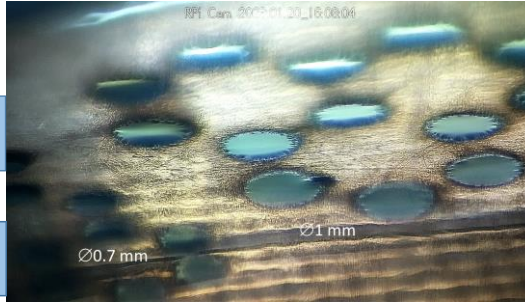
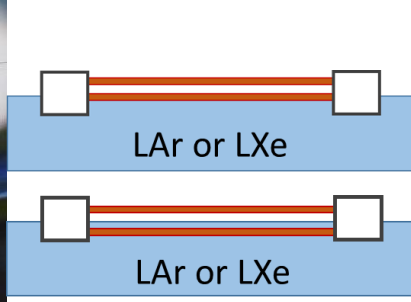
2022 – 2024: CERN/FIS-INS/0026/2021 -- FCT funding for participation in RD51 - LIP/UC/UA – 70k€ / 2 years

2022 – 2024: RD51 Common Fund – LIP/UC/WIS – 36CHF / 2 years

Future funding oportunities:

We are participating in preparation of the **DRD1** (gas detectors, MPGD) and **DRD2** (liquid detectors) ECFA Detector Road Map proposals with:

- Development of novel readout techniques (Floating Hole Multiplier, novel Micropattern structures for electroluminescence in liquid xenon)
- LXe physics (surface studies, electroluminescence in the liquid phase)



SWOT Analysis

Strength

Highly qualified members with many years of experience of R&D in the field of detector development.

Weaknesses

Limited availability of human power. Heavy involvement of the group members in other activities and projects.

Opportunities

The weaknesses overcome, there will be an opportunity for sound contributions to the development of liquid xenon detectors and better understanding of the underlying physics, as well as to the development of novel technologies for the next generation of large scale liquid noble gas detectors for rare events, in particular.

Threats

Degradation of the experimental basis in the laboratory due to the lack of investment, accumulated during many years.