

# LISE setup ("brochette" mode) ,foreseen for the 2022 campaign with PARIS-EXOAM2 and ACTAR

## ➤ (p,p') or transfer reactions setup

- ACTAR
- Ancillary Si detectors

## ➤ Intermediate beam optics and detectors

- QD6 for refocussing the secondary beams
- CATS for beam tracking

## ➤ Gamma detection setup

Use of the EXOGAM structure (16 positions available) , either for PARIS or EXOGAM detectors.

2 configurations foreseen but any other combination would be possible

- 4 PARIS clusters at 90° and 12 EXOGAM2 clovers at 45 and 135 °
- 8 PARIS clusters at 90° : around the target + backward

## ➤ Zero Degree Detection

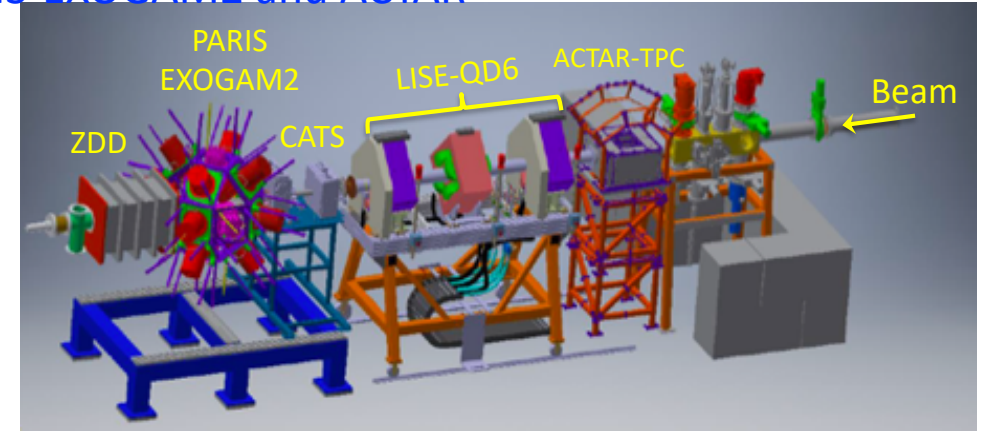
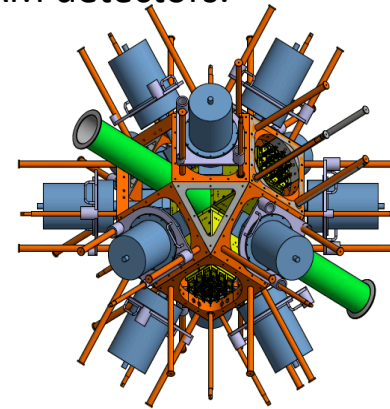
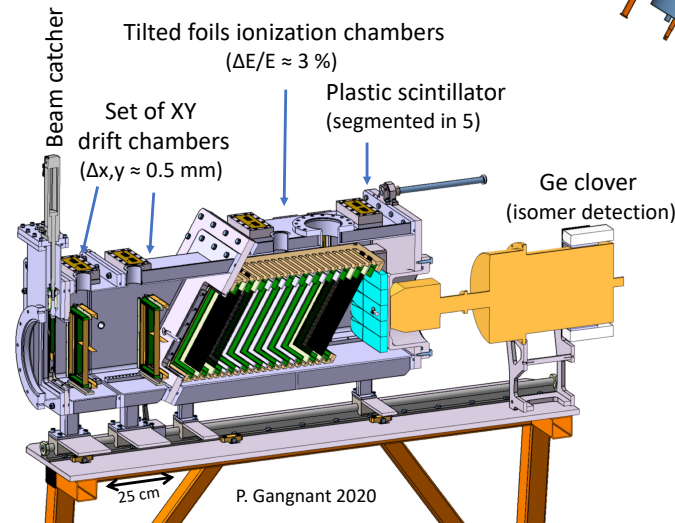
Drift chambers for (X,Y) position

Ionization chamber for  $\Delta E$  measurement

Plastic for E measurement

- Angle from 0 to 8°
- Counting rate up to  $2 \cdot 10^5$  pps

Beam after interaction with secondary target  
 $\leq 2 \cdot 10^5$  pps,  $Z \leq 30$ ,  $E \geq 8$  A.MeV



Configuration 4 PARIS + 12 EXOGAM2

	EXOAM		PARIS	
	Efficiency (%)	FWHM (keV)	Efficiency (%)	FWHM (keV)
$\beta=0,3$	12 clovers	20cm - 45 and 135°	4 clusters	15cm - 90°
<b>Energy (keV)</b>				
<b>300</b>	8	10,5	30	35
<b>1000</b>	4	34,8	15	102,3
<b>3000</b>	2	104,1	7	293,6

Configuration 8 PARIS @ 27cm

