

# Lost-fast ion probe (FILD: Fast ion loss detector)

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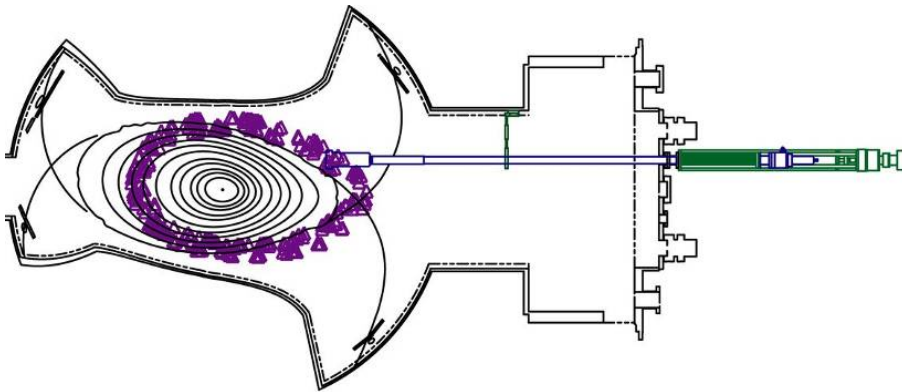
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## 1. Objective

Measurement of energy and pitch angle of lost-fast ion

## 2. Apparatus

Installed on 8O port AD01-05.



Detection range of FILD

$\rho = 2 \sim 23 \text{ cm}$ ,  $\chi = 25^\circ \sim 75^\circ$  ( $\rho \sim 16 \text{ cm} \rightarrow 180 \text{ keV}$  @  $Bt = 0.6 \text{ T}$ )

$\rho = 1 \sim 4 \text{ cm}$ ,  $\chi = \sim 80^\circ$

Acquisition

PMT (16 channel, 1 MHz sampling)

CMOS camera (frame rate is up to 2 kHz)

## 3. Available data by “Retrieve”

### 3.1. LABCOM

Retrieve name: SLIP, channel no: 1 ~ 16 ... time evolution of lost-fast ion signal measured by PMT

## References

[1] K. Ogawa, Journal of Plasma and Fusion Research, SERIES 8 (2009) 655.