LHD project

# Daily Schedule

| Prepared by |
|---|
| N.Kenmochi |

| Date | Experimental Subject |
|---|---|
| 2022/11/11(Fri) | Study on fast-ion |

| Exp. No. | Topical Group | TGL | Sub-TGL |
|---|---|---|---|
| 1302 | instability | K.Nagaoka/Y.Takemura [2177/2167] | R.Seki/N.Kenmochi [2201/2208] |

Time Table

| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UP | [instability] | | | | | | | | | DN | | | |

## Details and Experimental Conditions

[instability Coordinator: N.Kenmochi](09:45 ～ 18:45) ECH, NBI, ICH
09:50-11:15 Study of Fast-Ion Stiffness in Alfven-Eigenmode at Helical Device (S. Kamio, K. Nagaoka)
11:15-12:10 Study of passing and helically-trapped beam ion in NB and ICRF tail ions heated plasma using the compact neutron emission spectrometer (S. Sangaroon, K. Ogawa)
12:10-14:35 Energetic-particle anisotropy (L. Liao, M. Isobe)
14:35-15:05 Change magnetic field (1T -> 2.75 T)
15:05-15:20 Validation of high-energy NB shine-through model (S. Sumida, M. Osakabe)
15:20-15:30 3 x NBI calibration
15:30-16:30 Study of passing and helically-trapped beam ion in NB and ICRF tail ions heated plasma using the compact neutron emission spectrometer (S. Sangaroon, K. Ogawa)
16:30-17:30 Radial electric field dependence of fast-ion transport (W. Heidbrink, M. Osakabe)
17:30-17:45 Change magnetic field (3.6m -> 3.75m)
17:45-18:45 Radial electric field dependence of fast-ion transport (W. Heidbrink, M. Osakabe)
Maximum number of discharges : 180
Sequence:3min

| # | Option | Polarity | Rax(m) | Bax(T) | gamma | Bq(%) | Subcooled |
|---|---|---|---|---|---|---|---|
| 1 | | CW | 3.6 | 1.0 | 1.2538 | 100.0 | |
| 2 | | CW | 3.6 | 1.375 | 1.2538 | 100.0 | |
| 3 | | CW | 3.75 | 1.0 | 1.2538 | 100.0 | |
| 4 | | CW | 3.9 | 1.0 | 1.2538 | 100.0 | |
| 5 | | CW | 3.6 | 2.75 | 1.2538 | 100.0 | |
| 6 | | CW | 3.75 | 2.64 | 1.2538 | 100.0 | |
| 7 | ✓ | CW | 3.6 | 0.6 | 1.2538 | 100.0 | |
| 8 | ✓ | CW | 3.6 | 0.75 | 1.2538 | 100.0 | |
| 9 | ✓ | CW | 3.75 | 1.375 | 1.2538 | 100.0 | |

## Gas

H2,D2,Ar

## Wall Conditioning

GD(Before Exp.): None , Cryopump(During Exp.): on

## Remarks

(instability)
Heating: NB source A or B, p-NB scan, ECH 56GHz, ICH power scan
Diagnostics: FIDA, BES, CXRS, H/D ratio, Bulk-CXRS, PCI, DBS, BS, HIBP

【Precautions for today's LHD experiments】
(id:677) Impurity gas puff
(id:706) ICH: Antennae insertion for plasma heating by ICH : Subcool required
(id:712) NBI: Injection into the discharges with low fields
(id:720) Probe: Edge plasma measurement using the fast-scanning Langmuir probes
(id:722) Insertion of sample, etc: Insertion of water-cooled tungsten divertor test piece