25th 9th week(05/06/24 - 05/10/24) schedule for LHD experiment

Weekly report :

Date	Day of the week	Bt direction	Schedule of the day: Morning (～ 12:15) / Afternoon (12:15 ～ 16:45)	Wall	Gas	Experiment implementation system	Remark
5/6	Mo.						
5/7	Tu.			None			
5/8	We.	CCW	[TC](10:30 ～ 16:45)ECH, NBI Characterization of impurity ion dynamics, turbulence suppression by IPD, density limit in relation to edge turbulence \# Opt. Pol. Rax Bax gamma Bq SC 1 CCW 3.55 2.7887 1.2538 100.0 2 CCW 3.6 2.75 1.2538 100.0 3 CCW 3.75 2.64 1.2538 100.0 4 CCW 3.75 1.375 1.2538 100.0	He GD	H2, CH4	【Responsible person】S.Masuzaki / H.Hayashi 【Coordinator#1】M.Nishiura 【Coordinator#2】M.Yoshinuma 【ECH】H.Takahashi 【Gas・vacuum・shutter】C/A 【Low temp.】noguchi.hiroki 【LID power】M.Kawai/K.Nagahara 【Coil power】tanoue.hiroyuki 【central ctrl.】nonomura.miki 【data proc.】M.Ohsuna 【EXP LAN】nakamura.osamu	(TC)10:30-11:27 impurity gass puff (CH4) 11:37-12:58 B profile by CXRS, realtime TS 13:27-14:24 impurity gass puff (CH4) 14:24-16:45 LID, realtime TS, DBS, PCI, CO2, FIR (id:724) Impurity gas puff (id:728) Mag. Conf.: 3.55 m =< Rax < 3.6 m (id:731) Mag. Conf.: Using LID coil (id:762) Impurity powder dropper
5/9	Th.	CW	[TC](10:30 ～ 16:45)ECH, NBI Investigation of turbulence and heat propagation, electron temperature anisotropy \# Opt. Pol. Rax Bax gamma Bq SC 1 CW 3.6 2.75 1.2538 100.0	None Div Cryo	H2, Ar	【Responsible person】T.Seki / H.Hayashi 【Coordinator#1】T.Tokuzawa 【Coordinator#2】A.Shimizu 【ECH】R.Yanai 【Gas・vacuum・shutter】B/C 【Low temp.】noguchi.hiroki 【LID power】M.Kawai/K.Nagahara 【Coil power】takami.shigeyuki 【central ctrl.】nonomura.miki 【data proc.】M.Ohsuna 【EXP LAN】inoue.tomoyuki	(TC)FTS, fast CXS, BS(position scan), HIBP, MSE, PCI (id:724) Impurity gas puff (id:748) ECH: off-axis injection (Combined)
5/10	Fr.	CCW	[MAP](10:30 ～ 16:45)ECH, NBI Understanding of the evolution of cosmic organic dust, Te locking at magnetic island \# Opt. Pol. Rax Bax gamma Bq SC 1 CCW 3.6 2.75 1.2538 100.0 2 CCW 3.85 2.5714 1.2538 100.0 3 ✓ CCW 3.9 2.5385 1.2538 100.0	None	H2, He, N2, Ne, Ar, Kr	【Responsible person】M.Osakabe / H.Hayashi 【Coordinator#1】M. Kobayashi 【Coordinator#2】M. Shoji 【ECH】N.Kenmochi 【Gas・vacuum・shutter】A/B 【Low temp.】noguchi.hiroki 【LID power】M.Kawai/K.Nagahara 【Coil power】tanoue.hiroyuki 【central ctrl.】nonomura.miki 【data proc.】M.Ohsuna 【EXP LAN】nakamura.osamu	(MAP)Sample Manipulator(10.5L), CXS, Spectroscopy(EUV, VUV, VIS), LID(3000A, 11:30-16:45) (id:724) Impurity gas puff (id:731) Mag. Conf.: Using LID coil (id:748) ECH: off-axis injection (Combined) (id:760) Insertion of sample, etc: Exposure of a material sample to divertor plasma by the manipulators

LHD project

Daily Schedule

Prepared by
M.Nishiura

Date	Experimental Subject
2024/5/8(Wed)	Characterization of impurity ion dynamics, turbulence suppression by IPD, density limit in relation to edge turbulence

Exp. No.	Experimental Session Group	Session Coordinator
1359	TC	M.Nishiura[2184] / M.Yoshinuma[2172]

Time Table

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

Details and Experimental Conditions	Gas
[TC](10:30 ～ 16:45) ECH, NBI 10:30-11:27 Characterization and modelling of the parallel dynamics of impurity ions (Jaime de la Riva Villen, Tamura) *NBI calib(1 shot) 11:27-11:37 Magnetic config: 3.55m, 2.7887T -> 3.6m, 2.75T 11:37-13:07 Understanding Turbulence Suppression Mechanisms in Boron-IPD Experiments (Kinoshita(Kyushu U.), Tanaka) *NBI calib(3 shots) 13:07-13:27 Magnetic config: 2.6m, 2.75T -> 3.75m, 2.64T 13:27-14:24 Characterization and modelling of the parallel dynamics of impurity ions (Jaime de la Riva Villen, Tamura) *NBI calib(1 shot) 14:24-15:24 Density limit in relation to edge turbulence(Motojima) 15:24-15:44 Magnetic config: 3.75m, 2.64T -> 3.75m, 1.375T 15:44-16:44 Density limit in relation to edge turbulence(Motojima) *NBI calib(1 shot) Sequence:3min	H2,CH4

#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled
1		CCW	3.55	2.7887	1.2538	100.0	
2		CCW	3.6	2.75	1.2538	100.0	
3		CCW	3.75	2.64	1.2538	100.0	
4		CCW	3.75	1.375	1.2538	100.0	

Wall Conditioning

GD(Before Exp.): None , GD(After Exp.): He , Cryopump(During Exp.): off

Remarks

(TC)10:30-11:27 impurity gass puff (CH4)
11:37-12:58 B profile by CXRS, realtime TS
13:27-14:24 impurity gass puff (CH4)
14:24-16:45 LID, realtime TS, DBS, PCI, CO2, FIR

【Precautions for today's LHD experiments】
(id:724) Impurity gas puff
(id:728) Mag. Conf.: 3.55 m =< Rax < 3.6 m
(id:731) Mag. Conf.: Using LID coil
(id:762) Impurity powder dropper

LHD project

Daily Schedule

Prepared by
N.Tamura

Date	Experimental Subject
2024/5/9(Thu)	Investigation of turbulence and heat propagation, electron temperature anisotropy

Exp. No.	Experimental Session Group	Session Coordinator
1360	TC	T.Tokuzawa[2217] / A.Shimizu[2454]

Time Table

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

Details and Experimental Conditions	Gas
[TC](10:30 ～ 16:45) ECH, NBI 10:30-15:40 Investigation of turbulence and heat propagation characteristics in modulated ECH experiments (N.Kenmochi) 15:40-16:45 Experimental study of the electron temperature anisotropy by using the LHD Thomson scattering system (I. Yamada)	H2,Ar

Sequence:3min

#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled
1		CW	3.6	2.75	1.2538	100.0	

Wall Conditioning

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

Remarks

(TC)FTS, fast CXS, BS(position scan), HIBP, MSE, PCI

【Precautions for today's LHD experiments】
(id:724) Impurity gas puff
(id:748) ECH: off-axis injection (Combined)

LHD project

Daily Schedule

Prepared by
M.Kobayashi

Date	Experimental Subject
2024/5/10(Fri)	Understanding of the evolution of cosmic organic dust, Te locking at magnetic island

Exp. No.	Experimental Session Group	Session Coordinator
1361	MAP	M. Kobayashi / M. Shoji

Time Table	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		UP	[MAP]							DN					

Details and Experimental Conditions	Gas
[MAP](10:30 ～ 16:45) ECH, NBI 10:30-11:30 Understanding of the evolution of cosmic organic dust in reaction with plasma (I. Sakon(U. Tokyo), M. Kobayashi) 11:30-16:45 Electron temperature locking at edge magnetic island during detachment (M. Kobayashi) # [Change of Mag. Config.: 3.6m, 2.75T -> 3.85m, 2.5714T} will be done around 12:40. NBI pattern #7: (#1, #2, #3, #4, #5) - (#1, #2, #3, #4) - (#1, #2, #3) - (#1, #2) Sequence:3min	H2,He,N2,Ne,Ar,Kr

#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled
1		CCW	3.6	2.75	1.2538	100.0	
2		CCW	3.85	2.5714	1.2538	100.0	
3	✓	CCW	3.9	2.5385	1.2538	100.0	

Wall Conditioning

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

Remarks

(MAP)Sample Manipulator(10.5L), CXS, Spectroscopy(EUV, VUV, VIS), LID(3000A, 11:30-16:45)

【Precautions for today's LHD experiments】
(id:724) Impurity gas puff
(id:731) Mag. Conf.: Using LID coil
(id:748) ECH: off-axis injection (Combined)
(id:760) Insertion of sample, etc: Exposure of a material sample to divertor plasma by the manipulators