

24th 5th week(10/24/22 - 10/28/22) schedule for LHD experiment

Weekly report : H.Takahashi

Date	Day of the week	Bt direction	Schedule of the day										Wall	Gas	Experiment implementation system	Remark																		
			Morning (~ 12:15)					Afternoon (12:15 ~ 18:45)																										
10/24	Mo.	CCW	[multi-ion](13:45 ~ 14:45)ECH, NBI Understanding of the origin and evolution of cosmic organic dust in an astrobiological context					[spectroscopy](14:45 ~ 18:45)ECH, NBI Te locking to magnetic island with impurity seeding					Sat: D2 GD	H2, D2, He, N2, Ne, Ar, Kr	[Responsible person]R.Sakamoto / T.Tokuzawa [ECH]H.Igami [NBI]H.Nakano [central ctrl./data proc.] / Ohsuna, Ogawa [radiation]M.Kobayashi [EXP LAN]Inoue/Nakamura [TGL]N.Tamura/M.Kobayashi, M. Goto [SubTGL]H.Kasahara/G.Motojima, M.Yoshinuma/T.Oishi/T.Kawate	[multi-ion]Manipulator(4.5L), CXS, NBI#3 gate valve open [spectroscopy]LID3300A, PCI, GPI, divertor probe, magnetic probe, CXS, BL3 Gate Valve Open (id:677) Impurity gas puff (id:685) Mag. Conf.: Using LID coil (id:691) Mag. Conf.: Subcool conditions (Combined) : Subcool required (id:705) ECH: off-axis injection (Combined) (id:719) Insertion of sample, etc.: Insertion of samples using manipulator (id:720) Probe: Edge plasma measurement using the fast-scanning																		
			# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax	Bax				gamma	Bq	SC															
			1	CCW	3.9	2.5385	1.2538	100.0		1	CCW	3.9	2.6308				1.2538	100.0	✓															
			2	✓	CCW	3.6	2.75	1.2538	100.0		2	CCW	3.85				2.6649	1.2538	100.0	✓														
			3	✓	CCW	3.75				3	✓	CCW	3.85				2.5714	1.2538	100.0															
			4	✓	CCW	3.9				4	✓	CCW	3.9	2.5385	1.2538	100.0																		
10/25	Tu.	CCW	[instability](09:45 ~ 18:45)ECH, NBI, ICH Fluctuations in LH transition, p-11B alpha particles measurement										None	H2, He, Ar	[Responsible person]K.Ida / N.Tamura [ECH]H.Takahashi [NBI]H.Nakano [central ctrl./data proc.]Ohsuna, Maeno / Ohsuna, Ogawa [radiation]H.Hayashi [EXP LAN]Watanabe/Inoue [TGL]K.Nagaoka/Y.Takemura [SubTGL]R.Seki/N.Kenmochi	[instability]CXS, open GV NBI#3, impurity gas, LPD, alpha particle detector, MSE (id:677) Impurity gas puff (id:678) Impurity powder dropper (id:685) Mag. Conf.: Using LID coil (id:706) ICH: Antennae insertion for plasma heating by ICH : Subcool required (id:712) NBI: Injection into the discharges with low fields (id:717) Insertion of sample, etc.: Insertion of the alpha particle detector (id:720) Probe: Edge plasma measurement using the fast-scanning Langmuir probes (id:722) Insertion of sample, etc:																		
			# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax					Bax	gamma	Bq	SC														
			1	CCW	3.6	1.0	1.2538	100.0		9	✓	CCW					3.9	2.5385	1.2538	100.0														
			2	CCW	3.6	2.75	1.2538	100.0		10	✓	CCW					3.95	2.5063	1.2538	100.0														
			3	✓	CCW	3.75	1.0	1.2538	100.0		11	✓					CCW	3.7	1.0	1.2538	100.0													
			4	✓	CCW	3.75	0.75	1.2538	100.0		12	✓					CCW	3.675	1.0	1.2538	100.0													
			5	✓	CCW	3.75	1.375	1.2538	100.0																									
			6	✓	CCW	3.75	2.64	1.2538	100.0																									
			7	✓	CCW	3.8	2.6053	1.2538	100.0																									
			8	✓	CCW	3.85	2.5714	1.2538	100.0																									
10/26	We.	CCW	[spectroscopy](09:45 ~ 11:15)ECH, NBI Acquisition of spectroscopic data for solar plasma diagnostics					[multi-ion](11:15 ~ 13:30)ECH, NBI, ICH Transport study in ECRH superposed ion ITB plasma					[spectroscopy](13:30 ~ 16:15)ECH, NBI High-Z ion spectroscopy					[multi-ion](16:15 ~ 18:45)ECH, NBI Mixture induced phase transition in multi-ion transport					D2 GD Div Cryo	H2, Ar, D2, He, N2, Ne	[Responsible person]M.Isobe / M. Goto [ECH]R.Yanai [NBI]Y.Kawamoto [central ctrl./data proc.]Ohsuna, Maeno / Ohsuna, Ogawa [radiation]T.Saze [EXP LAN]Nakamura/Inoue [TGL]M. Goto, N.Tamura/M.Kobayashi [SubTGL]M.Yoshinuma/T.Oishi/T. Kawate, H.Kasahara/G.Motojima	[multi-ion]BL3 gate open for CXS measurement He profile measurements with CXS, Er Discharge cleaning with ICH C pellet injection (id:676) Impurity pellet/TESPEL (id:677) Impurity gas puff (id:681) Mag. Conf.: 3.55 m =< Rax < 3.6 m (id:704) ECH: EC wave injection for more than 10 s (Combined) (id:705) ECH: off-axis injection (Combined) (id:706) ICH: Antennae insertion for plasma heating by ICH : Subcool required (id:720) Probe: Edge plasma								
			# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax	Bax	gamma	Bq					SC	# Opt.	Pol.	Rax	Bax	gamma	Bq	SC
			1	CCW	3.9	1.0	1.2538	100.0		1	CCW	3.6	2.75	1.2538	100.0		1	CCW	3.55	2.7887	1.2538	100.0						2	CCW	3.9	2.5385	1.2538	100.0	
			2	✓	CCW	3.9	1.375	1.2538	100.0																									
			3	✓	CCW	3.75	1.375	1.2538	100.0																									
10/27	Th.	CCW	[turbulence](09:45 ~ 18:45)ECH, NBI Non-diffusive counter-gradient electron thermal transport/Phase space tomography for MHD burst event															None	H2, D2, He, Ar	[Responsible person]S.Masuzaki / Y.Takemura [ECH]N.Kenmochi [NBI]H.Nakano [central ctrl./data proc.]Ohsuna, Maeno / Ohsuna, Ogawa [radiation]H.Miyake [EXP LAN]Inoue/Nakamura [TGL]T.Tokuzawa [SubTGL]A.Shimizu/T.Kobayashi/M.Nishiura/M.Nakata	[turbulence]CXS, FTS, PCI, High-k BS, BES, Carbon pellet (id:676) Impurity pellet/TESPEL (id:677) Impurity gas puff (id:681) Mag. Conf.: 3.55 m =< Rax < 3.6 m (id:691) Mag. Conf.: Subcool conditions (Combined) : Subcool required (id:697) ECH: Heating with the perpendicular injection from Port 2-0 : Subcool required (id:705) ECH: off-axis injection (Combined) (id:720) Probe: Edge plasma measurement using the fast-scanning Langmuir probes (id:722) Insertion of sample, etc:													
			# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.					Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax	Bax	gamma	Bq	SC
			1	CCW	3.6	2.75	1.2538	100.0																										
			2	✓	CCW	3.55	2.7887	1.2538	100.0																									
			3	✓	CCW	3.58	2.7654	1.2538	100.0																									
			4	✓	CCW	3.6	2.85	1.2538	100.0	✓																								
10/28	Fr.	CCW	[turbulence](09:45 ~ 18:45)ECH, NBI Investigation of cross-scale coupling/Study of electron temperature fluctuation in e-ITB/turbulence control															Div Cryo	H2, D2, He, Ar	[Responsible person]K.Tanaka / K.Nagaoka [ECH]Y.Yoshimura [NBI]K.Tsumori / K.Nagaoka [central ctrl./data proc.]Ohsuna, Maeno / Ohsuna, Ogawa [radiation]T.Kobuchi [EXP LAN]Watanabe/Yamamoto [TGL]T.Tokuzawa [SubTGL]A.Shimizu/T.Kobayashi/M.Nishiura/M.Nakata	[turbulence]CXS, HIBP, PCI, CECE/CTS (id:676) Impurity pellet/TESPEL (id:685) Mag. Conf.: Using LID coil (id:702) ECH: Collective Thomson Scattering (CTS) measurement (id:703) ECH: EC wave Injection from the Port 1.5Uo antenna (id:705) ECH: off-axis injection (Combined) (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													
			# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax	Bax	gamma	Bq	SC	# Opt.					Pol.	Rax	Bax	gamma	Bq	SC	# Opt.	Pol.	Rax	Bax	gamma	Bq	SC
			1	CW	3.55	2.7887	1.2538	100.0																										
			2	CW	3.6	2.75	1.2538	100.0																										

Daily Schedule

Prepared by

M.Kobayashi

Date	Experimental Subject																																																							
2022/10/24(Mon)	Understanding of the origin and evolution of cosmic organic dust in an astrobiological context Te locking to magnetic island with impurity seeding																																																							
Exp. No.	Topical Group					TGL					Sub-TGL																																													
1290	multi-ion/spectroscopy					N.Tamura/M.Kobayashi M. Goto [2337/2169, 2290]					H.Kasahara/G.Motojima M.Yoshinuma/T.Oishi/T.Kawate [2203/2142, 2172/2022/2256]																																													
Time Table	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22																																									
						U P	[multi-ion]	[spectroscopy]			D N																																													
Details and Experimental Conditions														Gas																																										
[multi-ion Coordinator: M.Kobayashi](13:45 ~ 14:45) ECH, NBI 13:45-14:45 Understanding of the origin and evolution of cosmic organic dust in an astrobiological context (I. Sakon, M. Kobayashi) Maximum number of discharges : 30 Sequence:3min <table><tr><td>#</td><td>Option</td><td>Polarity</td><td>Rax(m)</td><td>Bax(T)</td><td>gamma</td><td>Bq(%)</td><td>Subcooled</td></tr><tr><td>1</td><td></td><td>CCW</td><td>3.9</td><td>2.5385</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>2</td><td>✓</td><td>CCW</td><td>3.6</td><td>2.75</td><td>1.2538</td><td>100.0</td><td></td></tr></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.9	2.5385	1.2538	100.0		2	✓	CCW	3.6	2.75	1.2538	100.0		H2,D2,He ,N2,Ne,Ar																		
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																																	
1		CCW	3.9	2.5385	1.2538	100.0																																																		
2	✓	CCW	3.6	2.75	1.2538	100.0																																																		
[spectroscopy Coordinator: M.Yoshinuma](14:45 ~ 18:45) ECH, NBI 14:45-18:45 Te locking to magnetic island with impurity seeding(M. Kobayashi) Maximum number of discharges : 100 Sequence:3min <table><tr><td>#</td><td>Option</td><td>Polarity</td><td>Rax(m)</td><td>Bax(T)</td><td>gamma</td><td>Bq(%)</td><td>Subcooled</td></tr><tr><td>1</td><td></td><td>CCW</td><td>3.9</td><td>2.6308</td><td>1.2538</td><td>100.0</td><td>✓</td></tr><tr><td>2</td><td></td><td>CCW</td><td>3.85</td><td>2.6649</td><td>1.2538</td><td>100.0</td><td>✓</td></tr><tr><td>3</td><td>✓</td><td>CCW</td><td>3.85</td><td>2.5714</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>4</td><td>✓</td><td>CCW</td><td>3.9</td><td>2.5385</td><td>1.2538</td><td>100.0</td><td></td></tr></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.9	2.6308	1.2538	100.0	✓	2		CCW	3.85	2.6649	1.2538	100.0	✓	3	✓	CCW	3.85	2.5714	1.2538	100.0		4	✓	CCW	3.9	2.5385	1.2538	100.0		H2,D2,He ,N2,Ne,Ar ,Kr		
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																																	
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3	✓	CCW	3.85	2.5714	1.2538	100.0																																																		
4	✓	CCW	3.9	2.5385	1.2538	100.0																																																		
Wall Conditioning		GD(Before Exp.): Sat:D2, Sun:None , GD(After Exp.): H2 , Cryopump(During Exp.): on																																																						
Remarks		(multi-ion)Manipulator(4.5L), CXS, NBI#3 gate valve open (spectroscopy)LID3300A, PCI, GPI, divertor probe, magnetic probe, CXS, BL3 Gate Valve Open 【Precautions for today's LHD experiments】 (id:677) Impurity gas puff (id:685) Mag. Conf.: Using LID coil (id:691) Mag. Conf.: Subcool conditions (Combined) : Subcool required (id:705) ECH: off-axis injection (Combined) (id:719) Insertion of sample, etc.: Insertion of samples using manipulator (id:720) Probe: Edge plasma measurement using the fast-scanning Langmuir probes																																																						

Daily Schedule

Prepared by

N.Tamura

Date	Experimental Subject																																																																																																																							
2022/10/25(Tue)	Fluctuations in LH transition, p-11B alpha particles measurement																																																																																																																							
Exp. No.	Topical Group					TGL					Sub-TGL																																																																																																													
1291	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																																																																																																									
		U P	[instability]										D N																																																																																																											
Details and Experimental Conditions														Gas																																																																																																										
[instability Coordinator: Y.Takemura](09:45 ~ 18:45) ECH, NBI, ICH 10:00-12:00 Fluctuation pattern change with the L/H transition (Ohdachi) 12:00-18:45 Measurements of p-11B alpha particles (R. Magee, Ohdachi) piggyback CDC dynamics and rotational transform/CDC dynamics and rotational transform (Thomsen, Ohdachi) piggyback Physical mechanism of edge instability with collapse (Takemura) Maximum number of discharges : 200 Sequence:3min <table><thead><tr><th>#</th><th>Option</th><th>Polarity</th><th>Rax(m)</th><th>Bax(T)</th><th>gamma</th><th>Bq(%)</th><th>Subcooled</th></tr></thead><tbody><tr><td>1</td><td></td><td>CCW</td><td>3.6</td><td>1.0</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>2</td><td></td><td>CCW</td><td>3.6</td><td>2.75</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>3</td><td>✓</td><td>CCW</td><td>3.75</td><td>1.0</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>4</td><td>✓</td><td>CCW</td><td>3.75</td><td>0.75</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>5</td><td>✓</td><td>CCW</td><td>3.75</td><td>1.375</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>6</td><td>✓</td><td>CCW</td><td>3.75</td><td>2.64</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>7</td><td>✓</td><td>CCW</td><td>3.8</td><td>2.6053</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>8</td><td>✓</td><td>CCW</td><td>3.85</td><td>2.5714</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>9</td><td>✓</td><td>CCW</td><td>3.9</td><td>2.5385</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>10</td><td>✓</td><td>CCW</td><td>3.95</td><td>2.5063</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>11</td><td>✓</td><td>CCW</td><td>3.7</td><td>1.0</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>12</td><td>✓</td><td>CCW</td><td>3.675</td><td>1.0</td><td>1.2538</td><td>100.0</td><td></td></tr></tbody></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.6	1.0	1.2538	100.0		2		CCW	3.6	2.75	1.2538	100.0		3	✓	CCW	3.75	1.0	1.2538	100.0		4	✓	CCW	3.75	0.75	1.2538	100.0		5	✓	CCW	3.75	1.375	1.2538	100.0		6	✓	CCW	3.75	2.64	1.2538	100.0		7	✓	CCW	3.8	2.6053	1.2538	100.0		8	✓	CCW	3.85	2.5714	1.2538	100.0		9	✓	CCW	3.9	2.5385	1.2538	100.0		10	✓	CCW	3.95	2.5063	1.2538	100.0		11	✓	CCW	3.7	1.0	1.2538	100.0		12	✓	CCW	3.675	1.0	1.2538	100.0		H2,He,Ar		
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																																																																																																	
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(instability)CXS, open GV NBI#3, impurity gas, IPD, alpha particle detector, MSE																																																																																																																								
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Daily Schedule

Prepared by

S.Masuzaki
H.Kasahara
T.Oishi
N.Tamura

Date	Experimental Subject																																														
2022/10/26(Wed)	Acquisition of spectroscopic data for solar plasma diagnostics Transport study in ECRH superposed ion ITB plasma High-Z ion spectroscopy Mixture induced phase transition in multi-ion transport																																														
Exp. No.	Topical Group						TGL					Sub-TGL																																			
1292	spectroscopy/multi-ion						M. Goto N.Tamura/M.Kobayashi [2290, 2337/2169]					M.Yoshinuma/T.Oishi/T.Kawate H.Kasahara/G.Motojima [2172/2022/2256, 2203/2142]																																			
Time Table	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22																																
		U	[spectroscopy]		[multi-ion]		[spectroscopy]		[multi-ion]		D																																				
		P																																													
Details and Experimental Conditions														Gas																																	
[spectroscopy Coordinator: TetsutarouOishi](09:45 ~ 11:15) ECH, NBI 9:45-10:55 Calibration of Solar EUV Spectrometers and Validation of Diagnostic Capability for Solar High-Temperature Plasmas by LHD Experiments (H. Hara, I. Murakami) 10:55-11:25 Change of magnetic field coordination Maximum number of discharges : 40 Sequence:3min <table><tr><th>#</th><th>Option</th><th>Polarity</th><th>Rax(m)</th><th>Bax(T)</th><th>gamma</th><th>Bq(%)</th><th>Subcooled</th></tr><tr><td>1</td><td></td><td>CCW</td><td>3.9</td><td>1.0</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>2</td><td>✓</td><td>CCW</td><td>3.9</td><td>1.375</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>3</td><td>✓</td><td>CCW</td><td>3.75</td><td>1.375</td><td>1.2538</td><td>100.0</td><td></td></tr></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.9	1.0	1.2538	100.0		2	✓	CCW	3.9	1.375	1.2538	100.0		3	✓	CCW	3.75	1.375	1.2538	100.0		H2,Ar	
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1		CCW	3.9	1.0	1.2538	100.0																																									
2	✓	CCW	3.9	1.375	1.2538	100.0																																									
3	✓	CCW	3.75	1.375	1.2538	100.0																																									
[multi-ion Coordinator: H.Kasahara](11:15 ~ 13:30) ECH, NBI, ICH 11:25-13:35 Transport study in ECRH superposed ion ITB plasma (H.Nakano) Rax=3.58m, 3:30 Maximum number of discharges : 60 Sequence:3min, 3min30s(Wall DC) <table><tr><th>#</th><th>Option</th><th>Polarity</th><th>Rax(m)</th><th>Bax(T)</th><th>gamma</th><th>Bq(%)</th><th>Subcooled</th></tr><tr><td>1</td><td></td><td>CCW</td><td>3.58</td><td>2.765</td><td>1.2538</td><td>100.0</td><td></td></tr></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.58	2.765	1.2538	100.0		H2,D2,He,Ar																	
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																								
1		CCW	3.58	2.765	1.2538	100.0																																									
[spectroscopy Coordinator: TetsutarouOishi](13:30 ~ 16:15) ECH, NBI 13:35-14:40 Collection and assessment of the transition data required for the quantitative studies of heavy element nucleosynthesis in neutron star mergers (D. Kato) 14:40-15:45 Experimental identification of spectral lines from highly charged heavy ions / Precision spectral measurements of highly charged rare earth ions and their data analysis with non-empirical MCDF-CI calculations (C. Suzuki, F. Koike) 15:45-15:55 NBI calibration 15:55-16:15 Change of magnetic field coordination Maximum number of discharges : 60 Sequence:3min <table><tr><th>#</th><th>Option</th><th>Polarity</th><th>Rax(m)</th><th>Bax(T)</th><th>gamma</th><th>Bq(%)</th><th>Subcooled</th></tr><tr><td>1</td><td></td><td>CCW</td><td>3.6</td><td>2.75</td><td>1.2538</td><td>100.0</td><td></td></tr></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.6	2.75	1.2538	100.0		H2,He,N2,Ne,Ar																	
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																								
1		CCW	3.6	2.75	1.2538	100.0																																									
[multi-ion Coordinator: H.Kasahara](16:15 ~ 18:45) ECH, NBI 16:15-18:45 Mixture induced phase transition in multi-ion transport (A.Dinklage, N.Tamura) Maximum number of discharges : 70 Sequence:3min <table><tr><th>#</th><th>Option</th><th>Polarity</th><th>Rax(m)</th><th>Bax(T)</th><th>gamma</th><th>Bq(%)</th><th>Subcooled</th></tr><tr><td>1</td><td></td><td>CCW</td><td>3.55</td><td>2.7887</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>2</td><td></td><td>CCW</td><td>3.9</td><td>2.5385</td><td>1.2538</td><td>100.0</td><td></td></tr></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.55	2.7887	1.2538	100.0		2		CCW	3.9	2.5385	1.2538	100.0		H2,D2,He,Ar									
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																								
1		CCW	3.55	2.7887	1.2538	100.0																																									
2		CCW	3.9	2.5385	1.2538	100.0																																									
Wall Conditioning																																															
GD(Before Exp.): None , GD(After Exp.): D2 , Cryopump(During Exp.): on																																															
Remarks	(multi-ion)BL3 gate open for CXS measurement He profile measurements with CXS, Er Discharge cleaning with ICH C pellet injection 【Precautions for today's LHD experiments】 (id:676) Impurity pellet/TESPEL (id:677) Impurity gas puff (id:681) Mag. Conf.: 3.55 m =< Rax < 3.6 m (id:704) ECH: EC wave injection for more than 10 s (Combined) (id:705) ECH: off-axis injection (Combined) (id:706) ICH: Antennae insertion for plasma heating by ICH : Subcool required (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																																														

Daily Schedule

Prepared by

S.Masuzaki

Date	Experimental Subject																																																						
2022/10/27(Thu)	Non-diffusive counter-gradient electron thermal transport/Phase space tomography for MHD burst event																																																						
Exp. No.	Topical Group					TGL					Sub-TGL																																												
1293	turbulence					T.Tokuzawa [2217]					A.Shimizu/T.Kobayashi/M. Nishiura/M.Nakata [2454/2231/2184/2276]																																												
Time Table	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22																																								
		U P	[turbulence]										D N																																										
Details and Experimental Conditions														Gas																																									
[turbulence Coordinator: AkihiroShimizu](09:45 ~ 18:45) ECH, NBI 9:45-13:45 Non-diffusive counter-gradient electron thermal transport and its turbulence properties(Tsujimura) 13:45-18:45 Phase space tomography for MHD burst event(T. Kobayashi) Maximum number of discharges : 250 Sequence:3min <table><thead><tr><th>#</th><th>Option</th><th>Polarity</th><th>Rax(m)</th><th>Bax(T)</th><th>gamma</th><th>Bq(%)</th><th>Subcooled</th></tr></thead><tbody><tr><td>1</td><td></td><td>CCW</td><td>3.6</td><td>2.75</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>2</td><td>✓</td><td>CCW</td><td>3.55</td><td>2.7887</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>3</td><td>✓</td><td>CCW</td><td>3.58</td><td>2.7654</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>4</td><td>✓</td><td>CCW</td><td>3.6</td><td>2.85</td><td>1.2538</td><td>100.0</td><td>✓</td></tr></tbody></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CCW	3.6	2.75	1.2538	100.0		2	✓	CCW	3.55	2.7887	1.2538	100.0		3	✓	CCW	3.58	2.7654	1.2538	100.0		4	✓	CCW	3.6	2.85	1.2538	100.0	✓	H2,D2,He ,Ar	
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																																
1		CCW	3.6	2.75	1.2538	100.0																																																	
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4	✓	CCW	3.6	2.85	1.2538	100.0	✓																																																
Wall Conditioning																																																							
GD(Before Exp.): D2 , GD(After Exp.): None , Cryopump(During Exp.): off																																																							
Remarks		(turbulence)CXS, FTS, PCI, High-k BS, BES, Carbon pellet 【Precautions for today's LHD experiments】 (id:676) Impurity pellet/TESPEL (id:677) Impurity gas puff (id:681) Mag. Conf.: 3.55 m =< Rax < 3.6 m (id:691) Mag. Conf.: Subcool conditions (Combined) : Subcool required (id:697) ECH: Heating with the perpendicular injection from Port 2-O : Subcool required (id:705) ECH: off-axis injection (Combined) (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																																																					

Daily Schedule

Prepared by

T.Tokuzawa

Date	Experimental Subject																																						
2022/10/28(Fri)	Investigation of cross-scale coupling/Study of electron temperature fluctuation in e-ITB/turbulence control																																						
Exp. No.	Topical Group					TGL					Sub-TGL																												
1294	turbulence					T.Tokuzawa [2217]					A.Shimizu/T.Kobayashi/M. Nishiura/M.Nakata [2454/2231/2184/2276]																												
Time Table	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22																								
		U P	[turbulence]										D N																										
Details and Experimental Conditions														Gas																									
[turbulence Coordinator: MasakiNishiura](09:45 ~ 18:45) ECH, NBI 10:00-12:30 Investigation of cross-scale coupling(Nasu, Tokuzawa) 12:30-15:30 Zonal flow control(Nasu, Tokuzawa) 15:30-17:20 Study of electron temperature fluctuation in e-ITB(Yanai, Gong) 17:20-18:45 Feedback control of turbulence(Sakai, Tanaka) Maximum number of discharges : 240 Sequence:3min <table><tr><th>#</th><th>Option</th><th>Polarity</th><th>Rax(m)</th><th>Bax(T)</th><th>gamma</th><th>Bq(%)</th><th>Subcooled</th></tr><tr><td>1</td><td></td><td>CW</td><td>3.55</td><td>2.7887</td><td>1.2538</td><td>100.0</td><td></td></tr><tr><td>2</td><td></td><td>CW</td><td>3.6</td><td>2.75</td><td>1.2538</td><td>100.0</td><td></td></tr></table>														#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled	1		CW	3.55	2.7887	1.2538	100.0		2		CW	3.6	2.75	1.2538	100.0		H2,D2,He ,Ar	
#	Option	Polarity	Rax(m)	Bax(T)	gamma	Bq(%)	Subcooled																																
1		CW	3.55	2.7887	1.2538	100.0																																	
2		CW	3.6	2.75	1.2538	100.0																																	
Wall Conditioning																																							
GD(Before Exp.): None , Cryopump(During Exp.): on																																							
Remarks		(turbulence)CXS, HIBP, PCI, CECE/CTS 【Precautions for today's LHD experiments】 (id:676) Impurity pellet/TESPEL (id:685) Mag. Conf.: Using LID coil (id:702) ECH: Collective Thomson Scattering (CTS) measurement (id:703) ECH: EC wave Injection from the Port 1.5Uo antenna (id:705) ECH: off-axis injection (Combined) (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																																					