

~~2016/10~~ 2016/12/06: Tuesday

- RMF
- H₂ gas
- Room Temperature Flux Conserver
- Probe diagnostics
 - Tantalum backplate floating potential inside & outside discharge
 - Swing probe in SEC floating potential
- X-Ray diagnostics
 - Si PIN detector in CC
 - SDD detector in CC with variable aperture
 - SDD did not corroborate the Si PIN detector
 - SDD saw numerous spectral lines tentatively identified as
 - Oxygen
 - Carbon
 - Fluorine
 - Aluminum

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
1			Date:	12-9-16															
2			Run description:	FRC/RMFo	RMF	Scan @ 3 delays													
3			Base pressures: Main IG (T)	2.0e-6															
4			ER IG (T)	/															
5			Satellite IG (T)	1.1e-6 Ac off															
6			Main chamber Baratron (T)	.0240															
7			Expansion region Baratron (T)																
8			Antennas/delay lines	2-turn, RG-217, 15" long															
9			RMF frequency & phase																
10			Magnet configuration & PS	4x8 + 8x4 coils; RR PS; eight BN-covered FCs	Recentered 4-turn MC coil														
11			RMF system	SRS-> duty factor limiter -> AR100LM9 -> 2KD -> 200 kW home made															
12			Wall Time	9:05	9:10	9:32	10:00	10:03	10:15	10:29	10:44	10:46	10:52	10:58	11:30		11:35	12:16	
13			Main magnets I (A)				1.6 m	83	83	83		83	83		83		83	63	
14			Nozzle coils I (A)				300	300	300	300		300	300		300		300	300	
15			MC IG (T)				1.7e-6												
16			MC Slow Baratron (T)				.0241	<-> //	.0214	.0233		.0237	.0237		.0245				
17			ER IG (T)	Ac on			.007		.5%	.565			.575		.481		.512	.562	
18			ER slow Baratron (T)				8.6e-7		1.7e-5	1.7e-5			1.8e-5		1.7.		1.7e-5	1.9e-5	
19			Satellite IG (T)																
20			Satellite FB (T)																
21			Ta paddle voltage									-205	-205		-300	-300	-300	-200	
22			Main valve									-330	-330		-501	-501	-501	-200	
23			Navigator valve																
24			End turbo valve																
25			Gases/feed location/scm																
26			PV-10 (V)																
27			Pulse	A to/A															
28				B to/A															
29				C to/A															
30			Diagnostics	LeCroy time															
31			Spectr	PM Tube (V)															
32			Wavelength	Port/LOS															
33			170 GHz	dia (mV)/IM freq															
34			X-ray	Amptek															
35			RMFo system	main SRS															
36			Pulse width (ms)/ rep rate (Hz)																
37			Frequency: Center(MHz)/Span(KHz)																
38			HVC 2 V. H ₂																
39			Pi/% refl																
40			φM																
41			Satellite probe																
42			ER Probe																
43			Helicon Pf/Pr				100/10	92/20	25/4	0/0	25/4		375/30	35/9	15/3				
44			Helicon (SRS/mod)				3220	.190	.09	0	.09		1240	.03	.03				
45			Comments/changes:	for Δφ = π/2, n _e = 2.1e12 cm ⁻³ for 16-cm dia plasma														sheet	of

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1			Date:	12-6-10														
2			Run description:	FRC/RMFo														
3			Base pressures: Main IG (T)															
4			ER IG (T)															
5			Satellite IG (T)															
6			Main chamber Baratron (T)															min valve N/S
7			Expansion region Baratron (T)															at 8.038
8			Antennas/delay lines	2-turn, RG-217, 15" long														
9			RMF frequency & phase															
10			Magnet configuration & PS	4x8 + 8x4 coils; RR PS; eight BN-covered FCs	Recentered 4-turn MC coil													
11			RMF system	SRS-> duty factor limiter -> AR100LM9 -> 2KD -> 200 kW home made														
12			Wall Time	12.57	1.01	1.14	2.57	1.22	2.56	3.00	3.25	3.40	3.58	4.05	4.17	4.19	time	Log
13			Main magnets I (A)	63	47		47	103	103	103	103	84	84	84	84	84		
14			Nozzle coils I (A)	300	300		300	300	300	300	300	300	300	300	300	300	16:19:30	8.031
15			MC IG (T)														16:19:10	8.033
16			MC Slow Baratron (T)														16:19:50	8.035
17			ER IG (T)														16:20:40	8.037
18			ER slow Baratron (T)	.551	.533		.537	.531	.547	.540	.522	.579	.361	.260	.248	.382	16:21:40	8.039
19			Satellite IG (T)	1.925	1.81.9		1.81.9	1.71.9	1.71.9	1.71.8	1.9	1.82.1	1.71.1	8.9	8.8	1.71.5	16:22:40	8.041
20			Satellite FB (T)														16:23:25	8.043
21			Ta paddle voltage	14													16:24:10	8.045
22			Main valve														16:24:50	8.047
23			Navigator valve														16:25:30	8.049
24			End turbo valve														16:26:10	8.051
25			Gases/feed location/sccm														16:26:40	8.053
26			PV-10 (V)														16:27:10	8.055
27			Pulse	A to/Δt													16:27:40	8.057
28				B to/Δt													16:28:10	8.059
29				C to/Δt													16:28:40	8.063
30			Diagnostics	LeCroy time													16:29:10	8.031
31			Spectr	PM Tube (V)													16:29:55	8.029
32			Wavelength	Port/LOS													16:30:20	8.027
33			170 GHz	dia (mV)/IM freq													16:31:00	8.025
34			X-ray	Amptek													16:31:30	8.023
35			RMFo system	main SRS	.610	.610	.610	.630	.630	.630	.630	.630	.630	.630	.630		16:31:55	8.021
36			Pulse width (ms)/ rep rate (Hz)	4ms/10	4ms		4ms	4ms	4ms	4ms	4ms	4ms	4ms	4ms	4ms		16:32:20	8.019
37			Frequency: Center(MHz)/Span(KHz)	8.031	8.031		8.031	8.031	8.031	8.031	8.031	8.031	8.031	8.031	8.031		16:32:40	8.017
38			Pr/% refl	20-22													16:33:10	8.015
39			ΦM														16:33:40	8.013
40			Satellite probe		out												16:33:20	8.011
41			ER Probe		out													
42			Helicon Pf/Pr		15/3		15/3		15/3	480/10	500/30	16/4						
43			Helicon (SRS/mod)		.03		.03		.03	.300	.300	.03						
44			Comments/changes:	for Δφ = π/2, n _e = 2.1e12 cm ⁻³ for 16-cm dia plasma														
45																		sheet 1 of 2

↑!!