

2023/05/15.

* The Mylar In and Mylar Out
does not sync with Mylar transmission
- so repeating 05/05/23. X-ray seed Plasma.
diagnostic.

10:30 PMOT CC Midpoint Ap4 - took noise spectra } both
02 - CC Radial Scan
showed
15%.

11:10 am. The M-P = 140 A, NOZZLE = 100 A.

- ~~Ap4~~

03- CC Midpoint Ap4 - Mylar.

04- " Ap4 - No Mylar.

The spectrum 03 & 04 was compared. But the
Oxygen peak was not attenuated at all.

05- We changed ~~the~~ Ap to Ap2.

06- We changed Ap1.

The changed slow threshold.

07- Retook Ap1 data.

Sam mentioned that the slow and Fast counts are ~~now~~ way different.

— Plasma was off - the Mag. fld's were ON.

The CC Midpoint SDD was tuned.

* While tuning the ST. changed 1.7% and the threshold increased from 15 to 20.

08 - Took Ap1 data again with Mylar IN.

Oxygen = 162

$V_F = 1.931$

$V_R = 0.485$

09 - Mylar Out Ap1.

Oxygen \rightarrow 617 counts

10 - Mylar Out Ap2

— $V_F =$

11 - Mylar IN "

— $V_F = 2.105V$

0.563 mV

12 - Mylar IN - Ap3.

13 - Mylar Out - Ap3 — shows X-ray throughout the Energy range.

Sam asked me to confirm if there is PPU.

The pressure was being reduced. 0.84 mtorr.

14 - Ap3 - Mylar Out - pressure = 0.843 mtorr (Saw lots of fast electrons)
 15 - Ap3 - Mylar IN - (Not much fast electrons)

16 - Ap2 - Mylar IN -

$$V_F = 2.102 V$$

~~160 eV~~

$$V_R = 0.776 V$$

17 - Ap2 - Mylar Out (Saw more energetic photons.)

18 - Ap2 - Mylar IN.

19 - Ap2 - Mylar Out (Again saw very high energetic electrons)

20 Sam suggested to add Argon as it has long tail

— Argon added.

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