13/Dec/2002

・KEKに搬入

15:00 ・TANK2 He leak test ～ 5×10^{-11} Pa·m³/sec
真空引きはじめ ~~2.6×10^{-4} Pa~~
16:55 TANK2 2.6×10^{-4} Pa

TANK1 重量測定 10:30 721 kg
16:30 720 kg
} (スリーブ含)

参考
2001年5月
706 kg, 中が真空のタンクは419 kg

16/Dec,/2002.

12:30. ● TANK2: 5.0×10^{-5} Pa.

17/Dec/2002

TANK2 4.0×10^{-5} Pa

20:30 TANK2 baking start S.V.=130°C

19/Dec/2002 TANK2 4.0×10^{-4} Pa @150°C

23/Dec/2002 TANK2 2.6×10^{-4} Pa @150°C
baking off

24/Dec/2002 TANK2 6.0×10^{-6} Pa

12:00 N_2容器の中にTANK2 移動

26/Dec/2002
再び TANK2の真空引き

4/Jan/2003 TANK2 4.0×10^{-6}

7/Jan/2003 TANK2 1.3×10^{-6}

8/Jan/2003 Xe 移動の為のラインを組む. Xe leak test $< 5\times10^{-11}$ Pa m³/sec
TANK2 真空引き開始

14/Jan/2003

13:00 TANK2 + line 3.0×10^{-6} Pa

14:00 Xe 封じ込め

flow meter

	瞬時 (メーターの表示)	積算 (offset)	~~TANK~~ TANK1	ボンベ圧
14:00	−1.2	0	6.75 MPa	0.11 MPa
15/Jan/2003 23:00	0.0 になった	934517 このoffsetを含む	0.63 MPa 放電?	0.3 atm
16/Jan/2003 8:30	−1.2	934517	0.62	0.0

~~20:30~~

77L liq

- TANK 2 と Purification line と chamber の配管
- Purification line + Molecular sieve He leak test $< 1.5 \times 10^{-8}$ Pa m³/s
- Outer vessel leak test OK.
- Inner vessel leak test → leak 発見 (ゲートバルブとターボの間の114φフランジ) → 交換
- Inner vessel leak test OK $< 1.0 \times 10^{-9}$ Pa m³/sec

全て真空引き開始.

1/31 - 新Xenon 47Lボンベと吉村チャンバーをつける
- 吉村チャンバーは独立に真空引き開始
- inner vessele 4.2×10^{-4} Pa
- outer vessele 1.3×10^{-2} Pa

2/6 13:59 ブレーカーが落ちた. (圧力計の後ろの端子の絶縁テープがはがれてショートしたらしい)
LPの内外真空, purification line ⇔ TMP 間の valve を一応 close.
all TMP start → valve open
pstmp 12 boot.
15:35 flow meter reset 934521 → 0.

16 / Feb / 2003

15:45 inner vessel 8.9×10^{-3} Pa
outer vessel 2.7×10^{-4} Pa

17 / Feb. / 2003

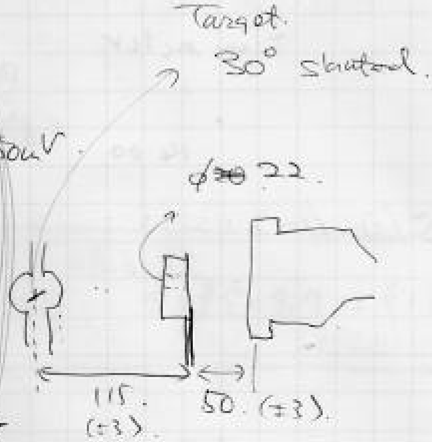
13:00 Beam ON. current ~ 150nA.

run00009. pedestal. Att 20dB. Vth = -50mV.
run00010. test run
run00011 test run

Vth = -150mV. ~2.7 Hz.

run00012 test run (150nA)
run00013 No Beam.

Vth - -100mV → Beam current 33nA



run00014 pedestal
run00015 test run.

Vth = -150mV.

run00016. test run. ~800Hz.

鉛厚 5cm ⟹ 10cm. colimator は 若干 後退.

run 00017. test run ~238 Hz.

Target "BN" ⟹ "空" target.

run00018

Target. "空 target" ⟹ "金 + Boron.".

真空引き中に 破れる.

run00019. pedestal.

明日 補修した "金+Boron" targetにて retry.

1000 18 MeV.

1.49 (130)

930

18 / Feb. / 2003.

8:30. 金 + Boron target install. pumping start. (run00020. pedestal.)

9:50. Beam ON. ~~[illegible]~~ nA. → 42.

9:54. run00021. New target test run. ~20 Hz

11:15 RUN00022 same as RUN00021 ~22.7 Hz (RUN00021と同じぐらい) 最後

Beam current 落とす. 42nA → 21 nA.

12:53 RUN00023. low intensity RUN. ~8.5 Hz.

Target 取. holderを外し.

15:21. RUN00024 No target RUN. ~2.78 Hz.

Beam current. → (31 nA).

run00025. No target RUN. ~2.7 Hz.

Target. " Boron powderをエポキシで固めたtarget".

1cm². 20 μg.

厚み.
~70μ. (秤量)
~90μ. (ノギス)

16:46. run00026, test run. ~234 Hz

穴径 8mm (直径)

17:05 Threshold for NaI

−150mV → −200mV. To reduce low energy events

9μs 14μs

RUN00027 TRIGGER Rate 34.8 Hz

20:20 Run00028 TiH target (^{t}500 μm) ← ^{7}Li
φ 8mm
current ~~19nA~~ ~4nA

$p(^{7}Li, \gamma)^{8}Be$

E_{Li} = 10.5 MeV
E_γ = ~~[illegible]~~ 17.6 MeV

20:21 Run00029 same as run00028
current ~19 nA
Trig. rate ~5.5 Hz.

Faraday Cup 5での値
particle 数では 1/2

↓

21:03 stopped

21:04 Run00030 same as Run00029.

Mylar target 180 μm 30° slanted

22:46 RUN00031 19nA. 330 Hz trigger Rate.

3/12 2.00 start to move new 3ℓ Xe to TANK.

inner vessel 7.5×10^{-3} Pa
outer 〃 2.3×10^{-4} Pa

Apr. 2 connection check at feedthrough

1. ok 2. ok 3. ok 4. ok
5. (1~20) ok (21~32) open 6. ok
7. (1~16) ok (17~32) open 8. ok

Signal cables: All ok!

2/Apr/2003.

LPの外側 HV用 ZIF コネクタ アサイン.

それぞれのコネクタの 8-F, 7-G, 8-G, 7-H, 8-H, 8-J が GND

⇨ HV pin connection check, All ok.

# of open pin
① 1-G, 4-E (8-J) common GND
② 1-N, 1-P, 2-N, 2-P, 3-N, 3-P, 4-N, 4-P, 5-M, 5-N, 5-P, 6-M, 6-N, 6-P, 7-M, 7-P, 8-M, 8-N, 8-P
③ 1-A, 1-B, 1-K, 2-A, 2-B, 2-J, 2-K, 3-A, 3-B, 3-K, 4-A, 4-B, 5-A, 5-K, 6-A, 6-K, 7-A, 7-K, 8-A

7/Apr/2003
9:00 inner vessel 6.1×10^{-3} Pa

Transport to AIST

22:30 He leak test (outer, inner chamber, purification line 0.1C.)
23:00 evacuation start

8/Apr/2003

9:30 inner vessel 2.1×10^{-2}
outer vessel 1.2×10^{-2}
P.S. line