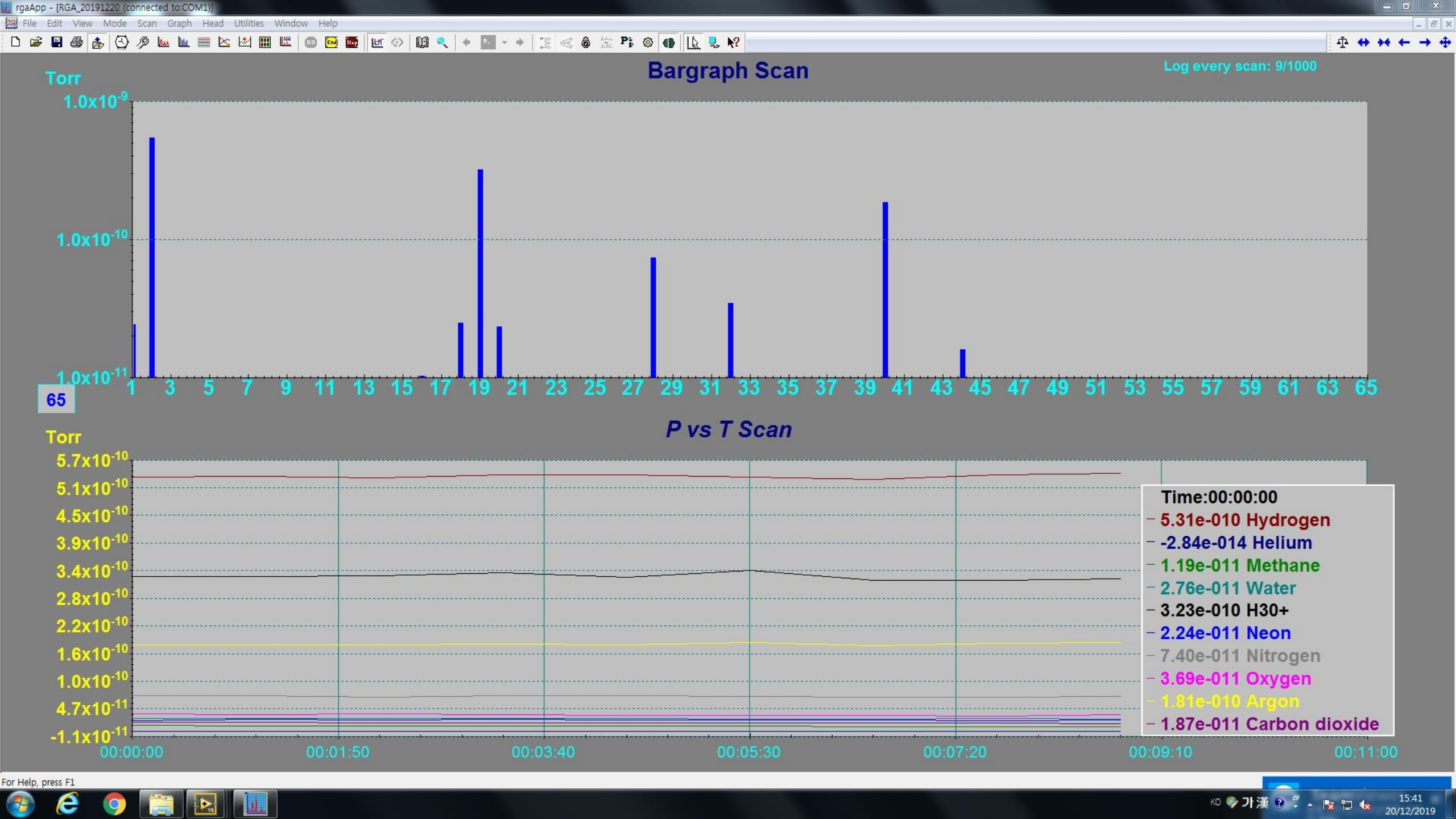
GBAR Trap Meeting

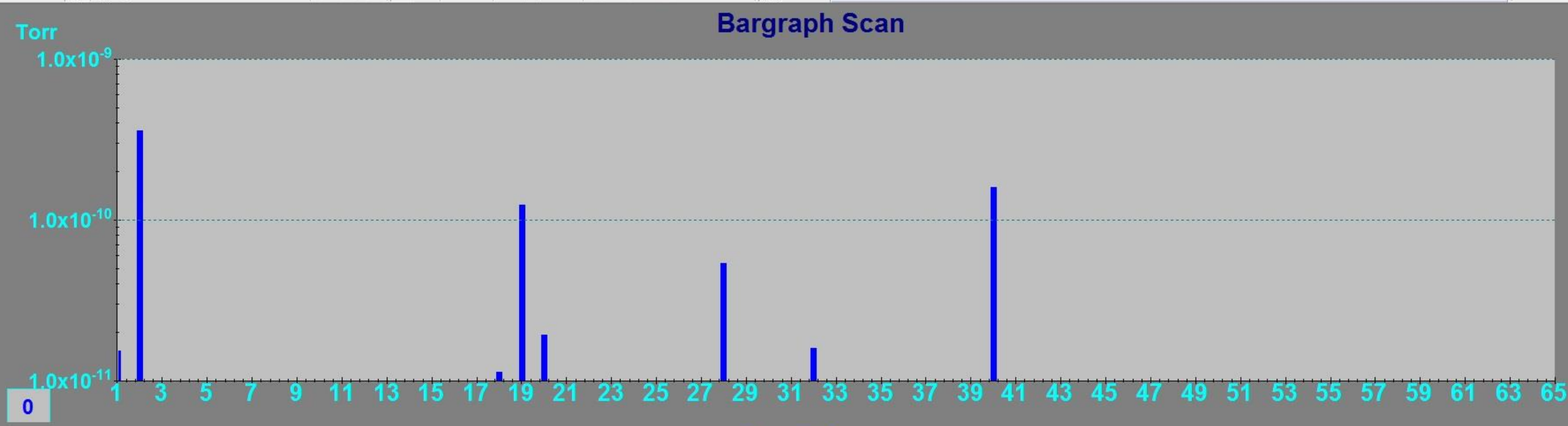
Seoul National University

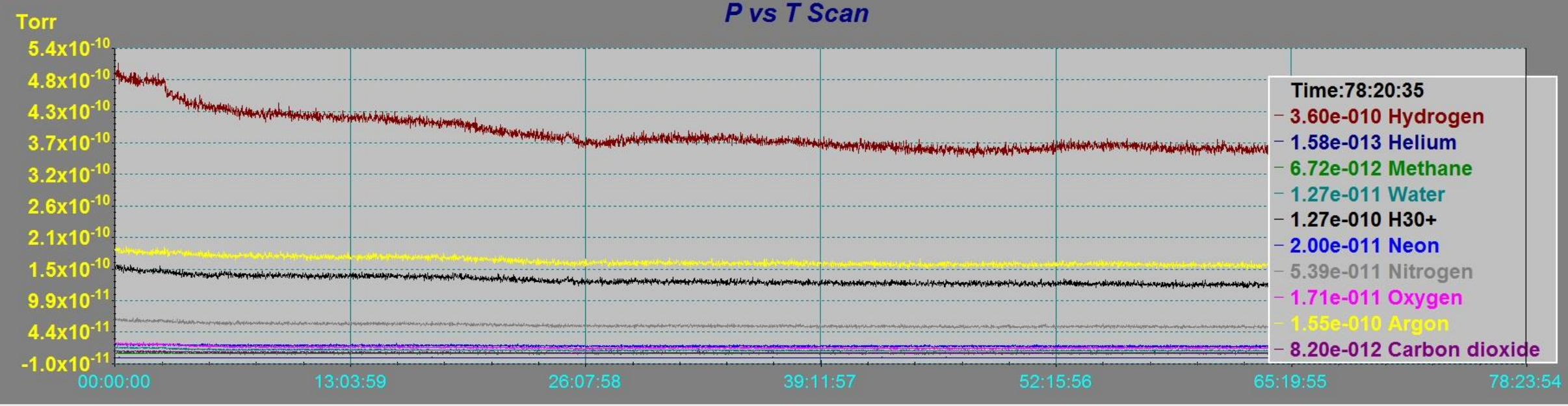
27.Dec.2019


rgaApp - [RGA_20191220 (connected to:COM1)]
File Edit View Mode Scan Graph Head Utilities Window Help
Bargraph Scan
Log every scan: 9/1000
Torr
1.0x10-9
1.0x10-10
1.0x10-11
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65
65
P vs T Scan
Torr
5.7x10-10
5.1x10-10
4.5x10-10
3.9x10-10
3.4x10-10
2.8x10-10
2.2x10-10
1.6x10-10
1.0x10-10
4.7x10-11
-1.1x10-11
00:00:00 00:01:50 00:03:40 00:05:30 00:07:20 00:09:10 00:11:00
Time:00:00:00
5.31e-010 Hydrogen
-2.84e-014 Helium
1.19e-011 Methane
2.76e-011 Water
3.23e-010 H30+
2.24e-011 Neon
7.40e-011 Nitrogen
3.69e-011 Oxygen
1.81e-010 Argon
1.87e-011 Carbon dioxide
For Help, press F1
15:41
20/12/2019

rgaApp - [RGA_20191223start]

File Edit View Mode Scan Graph Head Utilities Window Help



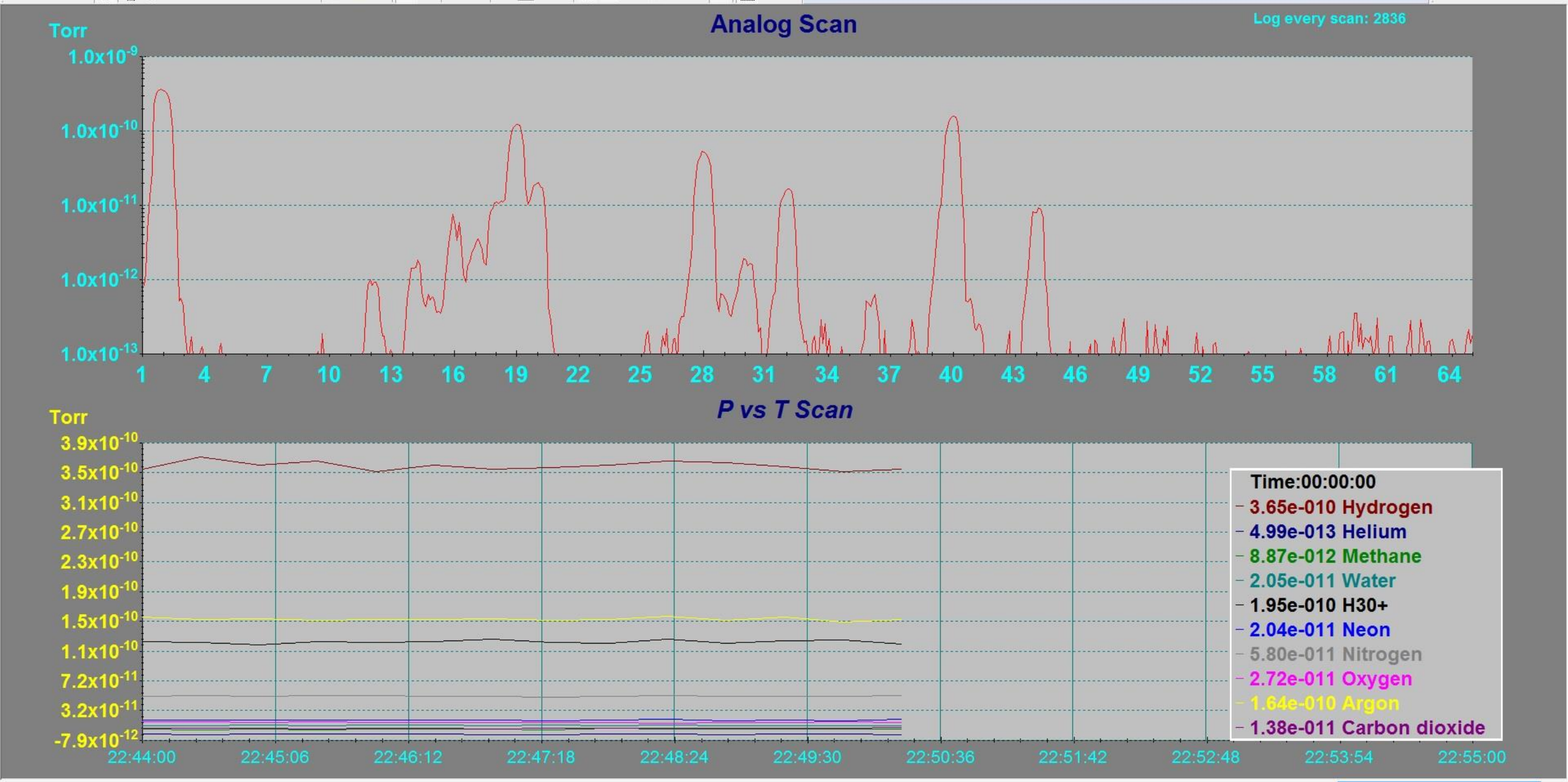


For Help, press F1

15:53
27/12/2019

rgaApp - [RGA_20191226start (connected to:COM1)]

File Edit View Mode Scan Graph Head Utilities Window Help



For Help, press F1

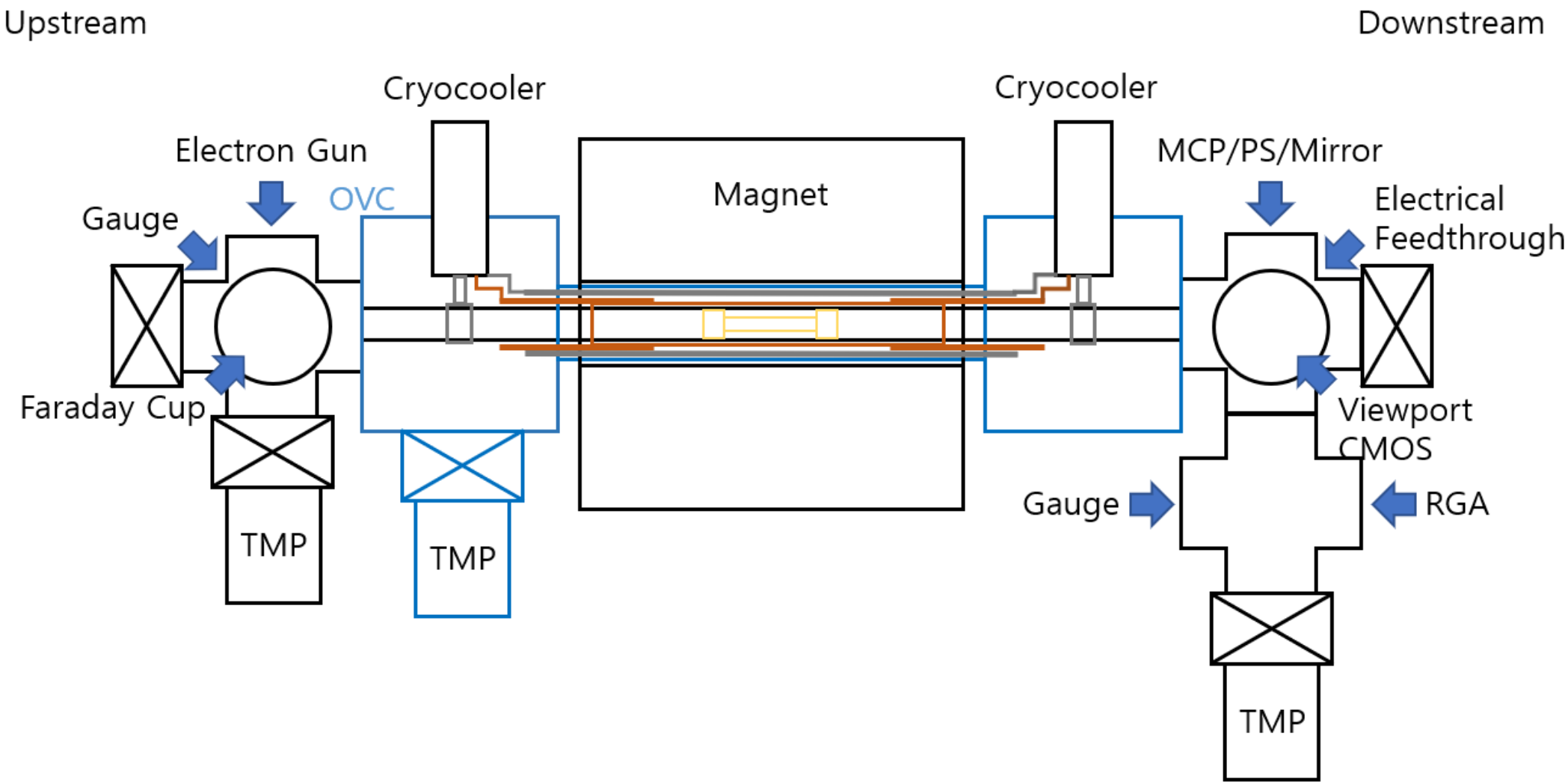
15:44
27/12/2019

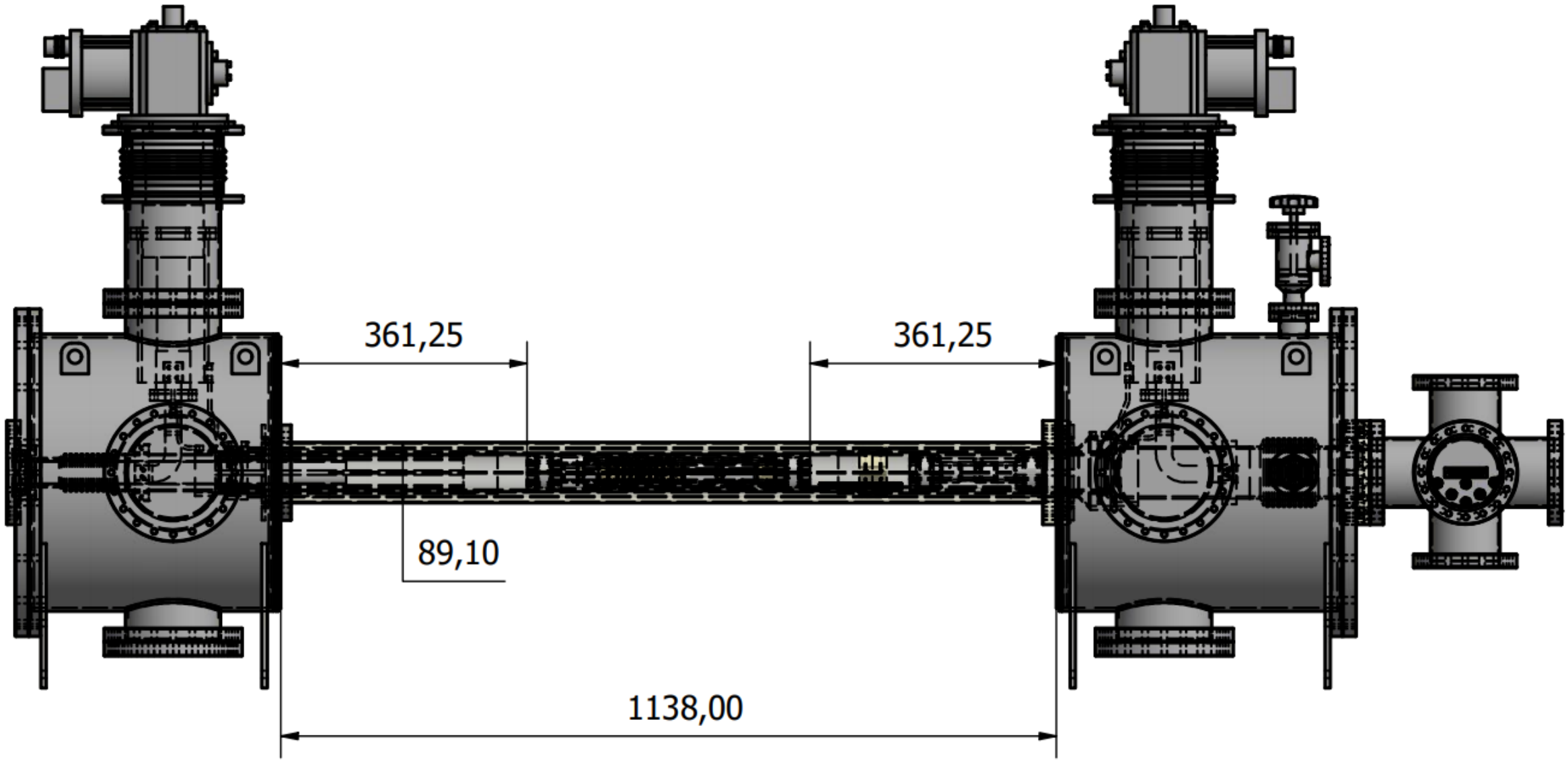
1. 전자를 충돌시켜 기체분자를 이온화해 질량분석을 하려고 하지만 전자충격에 의해 쪼개진 분자들도 같이 분석하게 될 수 있다.

2. 이온화 과정에서 1가이온 외에 다가이온도 생성되기 때문에 실제 질량의 ½ 또는 1/3에 해당하는 것으로 오인할 수 있다.

3. 보통 열음극이 이온원으로 사용되기 때문에 고온의 음극에 접촉한 분자가 분해되거나 음극재료와 화학반응을 일으키는 경우가 생기고 이로 인해 측정하려고 했던 기체에는 포함되지 않았던 새로운 기체가 상당량 발생할 수 있다.

진공공학 – 배석희 저


Upstream
Downstream
Cryocooler
Cryocooler
Electron Gun
MCP/PS/Mirror
OVC
Magnet
Gauge
Electrical
Feedthrough
Faraday Cup
Viewport
CMOS
Gauge
RGA
TMP
TMP
TMP


361,25
361,25
89,10
1138,00

Electrical Feedthrough

Le Pimpec, F., et al. "Vacuum breakdown limit and quantum efficiency obtained for various technical metals using dc and pulsed voltage sources." *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films* 28.5 (2010): 1191-1202.

Al-Al : 10^-9Torr 이하 압력 7.5MV/m에서 Breakdown

1mm : 7500V에서 Breakdown

Thank You!