^{14}N beam **Brho =0.79571 Tm (to be confirmed, calculated assuming the Brho == Brho $^{14}O^{7+}$ at 7.6 MeV/u)**

Low beam intensity (1000 pps)

1. Beam counting with Gas profiler (10 min)
2. Check Cats 2 & Cats 1 ok and verify the Gas profiler counting (30 min)
3. Cats2-HF resolution while passing the beam into Vamos (not the radioactif beam) (10 min-1h)
4. Put the target - hole to ensure the beam spot is small & centered (10 min-1 h)
5. Check Vamos signals and spectra (2-4h)
6. Brho scan in Vamos (1h)
7. Measure all targets thickness using Vamos. The other (worst) option is to measure them when we use them with the ^{14}O beam . For each target measure beam spot size in Vamos. Record Vamos – Hf spectra (1-2h)
   *Beam spot size for 100 um CH2 should be **5.5 mm** FWHM in the focal plane of Vamos. 2 mm from the beam spot size on the target + 3.5 mm from energy straggling*
8. Insert Cats2 → measure beam spot size in Vamos (extra 6 mm from Cats) ***11.5 mm*** total. (30 min)
9. Cover the beam spot with the finger (10 min)
10. Increase beam intensity monitoring Vamos & Mugast counting until count problem or few 10e+5 (1h)
11. Repeat step 8 - 10 with no Cats2 (1h)
12. Check Mugast spectra for id plots with HF as stop (2h)
13. + Obtain the 1H(14N,p) excitation function (rest of the time)

total up to 20h