Procedure of measurement for soil isotope and recharge rate

1. Cut a small entrance on the away side of the zip, which is big enough to let the dry air in. After adding the dry air, seal the bag twice and add two silicon cover (2-3 mm thick) on the surface of the bag, then stew for 24 h, to ensure the soil sample fully equilibrated.
2. Measure the sample bag within 2 days after the step 1, the needles need to be dried with desiccant, stab the needles in the bag and wait until the graph shows a horizontal line. Note down the values and errors of 18O, 2H and 17O. Between any two measurements, the needles need to be dried.
3. Cut the bag in the middle of height, weigh the soil with bag, note down the value as “weight cut”. Put all bags in the oven for 24 hours, please make sure all bags are totally open. (Attention: do not move the electronic scale!!!)
4. Weigh the dry soil with bag, note down the value as “dry”, then measure the net weight of the soil by putting the soil in to a crucible. Note down the value as “net weight”.
5. Pour the soil back to the bag after measurement then put the bag in to a paper box. Make sure all the bags are stable, since the chloride concentration need to be measured later.