

# How to weighing for CN analysis

## General:

- **Note:** Only those who have received instruction on the analytical balance may work with it! Instruction by: Iris Kuhlmann, Ines Hilke or Heike Geilmann
- Samples must be dried and ground to a powder-like material
- Ceramic pots, sample boxes and tungsten are handed out by Birgit Fröhlich (A1.019).

## Use the AG RoMA delivery file:

//minerva/balance/AG RoMA/RoMAEinlieferungsschein\_VS2

>>> save in own folder with file name consisting of own name and date,  
e.g. [Mustermann\_TT.MM.JJJJ] <<<

- **Weighing is done according to soil depth:**  
0-20 cm: 250 mg || 20-30 cm: 300 mg || 30-40 cm: 400 mg  
→ accuracy: +/- 5 mg (e.g. 245-255 mg)
- each sample is weighed in a total of 3 times:



### Dry matter content

- weighing in glass vials (metal box)
- first weigh the empty vial
- then weigh in approx. 3g sample (method  $\Delta\Delta$  FAST : NOT PRECISE)
- place in oven at **105°C for at least 24 h**
- place samples in **desiccator** for approx. ½ h
- weigh the samples, transfer weights to file with "log".
- dispose of samples, rinse jars and wash in dishwasher.

### Total carbon (TC)

- weighing in ceramic pots
- repeat every 10th sample
- add 400-500mg tungsten (do not write down the weight)

### Inorganic carbon (IC)

- weighing in ceramic pots
- additionally weigh 1x standard soil
- place in muffle furnace for **16 h at 450 °C** (place in metal racks one after the other)
- after that add 400-500mg tungsten (do not write down the weight)

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...and remember to send the completed delivery file to:

**Probenannahme\_RoMA@bgc-jena.mpg.de**