



## Organic Matter by Loss on Ignition

### EQUIPMENT

1. crucible
2. balance
3. drying oven
4. muffle furnace

### REAGENT

1. none

### PROCEDURE

1. Weigh crucibles to 4 decimal places
2. Transfer soil samples into crucibles using 5 g scoop
3. Place soil samples in drying oven set to 105°C for 2 hours
4. Place crucibles in desiccator and weigh samples to obtain dry weight
5. Place crucibles in muffle furnace set to 360°C for 3 hours
6. Place crucibles in desiccator and weigh samples to obtain ashed weight
7. Calculate Organic Matter %

### CALCULATION

- crucible wt = a
- crucible wt + sample wt after 105°C heating = b
- crucible wt + sample wt after 360°C heating = c

$$\%OM = ((b - (c - a)) \cdot 100) / (b - a)$$

### REFERENCE

Nelson D. W and Sommers, L. E. 1996. Organic Matter by Loss on Ignition. Chapter 34 in Methods of Soil Analysis. Part 3. Chemical Methods. Soil Science Society of America Book Series No. 5.