

Importance of the accurate determination of moisture for soil and needles/leaves samples for the final results

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The concentration of elements in soils, needles or leaves must be given by reference to 105°C-dried material.

That's why, in the lab we must determine the moisture content of the soil samples dried at room temperature or of the needles or leaves dried at less than 80°C.

The correction coefficient that we use for calculating the final results is:

$$K=100/(100-u)$$

where u is the moisture expressed in %.

When we weigh a certain quantity of sample for an element analysis, it's very important to weigh at the same moment a quantity of sample for the determination of moisture.

The moisture of the sample may change in time because of the different conditions in the lab, and we can have different K values today, comparing to yesterday.

This may be one of the reasons of non – tolerable results obtained in the interlaboratory tests.