Abstract

This rapport is meant to clairfy if it is possible to compare the water distribution in coniferous plants and foliage with the use of ^{18}F. Our aim is to test methods for a greater, future, study. The two methods of analysis that were used in this rapport are positron emission tomography (PET) and gamma spectroscopy. The PET-machine was supposed to give us pictures of the water distribution in the plants. However, the gamma spectrophotometry was meant to quantify how the water is spread in the plants. Picea pungens is the plant that represents the coniferous plants and Phlebodium represents foliage.

In conclusion, the pictures from the PET-machine were unsatisfying and therefore said method needs further adaptation. The results from the gamma spectrophotometer clearly displayed how water was distributed in the different plant components. This method is therefore to be considered consummate.