Influence of vegetation on radon exhalation rate on forests areas

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External radiation, radiation from radioactive materials on the ground and radon are the principal factors on atmospheric ion production on the lower part of the troposphere. While the first factor is quite constant over the time, the two others vary with the time and are closely related to meteorological conditions. Atmospheric ions in turn participate by ion induced nucleation on new particle formation processes, and so contributing on the balance of planetary radiation budget. Thus the radon concentrations are related to several atmospheric problems in local and global scales.

In this paper we are focused on the illustration of the influence of vegetation on radon exhalation rate through uptake and transpiration of groundwater. Despite of direct radon exhalation from the ground, this is a secondary pathway of radon exhalation.

Measurements of radon concentrations were carried out over two distinct sites; bared or grasslands and forests. In this paper investigated forests are composed by pine trees. Both these measurement sites there are located near Adriatic seashore, in Velipoja. Experimental measurement procedure was carried out under fair weather conditions.

The evidence of these facts gives a better knowledge also on atmospheric problems under the influence of vegetation. This work can be followed by additional investigations on the forests composed by different trees and also different soil types.