RIM 2018

Final info for comparison measurement of radon in soil gas at radon reference sites in the Czech Republic

17th September, 2018 - Radon reference sites Cetyne (low radioactivity) and Buk (enhanced radioactivity), both reference sites are meadows (details in the Instructions, which were sent to all participants)

The registration for RIM:

Sunday, September 16th, 18,00 – 20,00;
Masarykova college, Thakurova street No.1., 160 41 Prague 6
and/or
Monday, September 17th, before the departure from Prague (participants using the organized transport) or directly at the reference areas (participants using their own transport).

Expected time schedule, Monday, 17th September, 2018:

7.45	Meeting of participants using the organized transport in front of Masarykova college (+ Matej Neznal, Petra Pacherova)
8.00	Departure of participants using the organized transport from Prague
9.30	Meeting of all participants at reference site Cetyne
9.30 - 12.30	Measurement at reference site Cetyne
13.30 - 16.30	Measurement at reference site Buk
16.30	Departure to Prague

Note: Refreshment (tea, coffee, beer, sausages) will be available at reference site Buk during the whole radon comparison measurement.

Organized transport:

China (Nanping Wang),
Portugal (Alcides Pereira, Sergio Seco)
Serbia (Sofija Forkapic)
Serbia (Igor Celikovic, Gordana Pantelic)
Spain (Daniel Rabago, Enrique Fernandez)
Spain, Canary Islands (Jesus Garcia Rubiano, Hector Alonso Hernandez)
+ observer Tore Tollefsen

Own transport:

Croatia (Vanja Radolic, Denis Stanic, Igor Miklavcic)
Czech Republic (Ales Fronka, Jan Hradecky, Petra Vyletelova)
Estonia (Krista Taht-Kok, Valle Raidla)
Estonia (Priit Kasemaa, Lauri Kasemaa)
Estonia (Leena Paap, Rein Koch, Anne Serv)
Germany (Rouwen Lehne)
Germany (Dominique Ries)
Germany (Christian Bartzsch, Thomas Streil)
Italy (Livio Ruggiero)
Italy (Giancarlo Ciotoli, Francesca Giustini)
Poland (Dominik Grzadziel, Karolina Danylec, Szymon Gugula)
Romania (Bety-Denissa Burghele, Mircea Moldovan, Teofana Sferle, Stefan Florica)
Sweden (Oskar Bostrom, Jose Luis Gutierrez-Villanueva)
+ observer Jim Hondros

1. Measurement of radon (^{222}Rn) activity concentration in soil gas

At each radon reference site will be measured 10 stations in a prepared measurement grid. Measurement stations will be marked with numbered sticks (1 – 10), every participant (group/organization) will sample the soil gas at his fixed allocated position in the vicinity around the station. The uniform depth of soil gas sampling is 0.8 m.

Participants (groups/organizations) having specific geometry requirements on soil gas sampling will sample the soil gas at a greater distance from the fixed stations.

The radon comparison measurement is planned for 1 day (17 September 2018, 9:30 – 16:30). Participants (groups/organizations) using lengthy measurement technique need not to measure all 10 stations per reference site, the evaluation programme accept any number of measurements (anybody can stay little bit longer at the reference sites, it depends on the way of transport and will be solved in situ). In the necessity, there is a possibility to complete the measurement on Tuesday 18.September 2018.

Note: following participants (groups/organizations) have announced the completion of measurements on Tuesday:
Estonia (Leena Paap, Rein Koch, Anne Serv)
Poland (Dominik Grzadziel, Karolina Danylec, Szymon Gugula)
Sweden (Oskar Bostrom, Jose Luis Gutierrez-Villanueva)

It is supposed, that every participant (group/organization) will deliver one set of radon data. Additional measurements, if there are any, can serve only for his internal comparison.

Results of radon in soil gas measurement, expressed in activity concentration (kBq/m^3), will be inscribed into a form which will be distributed and also mailed in electronic form. Forms with resultant radon activity concentration data and affiliation of the participant shall be mailed to the Charles University, Faculty of Science, Department of Applied Geophysics using the e-mail address

matolin@natur.cuni.cz

Forms with resultant data should be mailed by 30 September 2018.

Radon comparison measurement will be evaluated by computer programme TestMOAR and every participant will obtain a short report on the comparison in electronic form. Results of radon comparison measurement are anonymous; participants will be marked by codes.

2. Gamma ray spectrometry measurement

For participants wishing to test their portable gamma ray spectrometers will be prepared two specific stations at each reference site. Gamma ray spectrometric measurement will be carried out with detectors positioned on a flat ground surface (measurement geometry $\omega = 2\pi$ sr). Charles University, Faculty of Science, Department of Applied Geophysics will take part in this comparison measurement.

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