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FERAS 2012

First East European Radon Symposium

September 2nd - 5th, 2012
Cluj-Napoca, Romania

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General information

The main purpose of the First East European Radon Symposium FERAS 2012 is to disseminate the knowledge, achievements and development stage of radon research in the European Union, especially in Eastern Europe (deficient in this research).

The goal of this symposium is to bring together researchers who are active in the study of radon in different environmental compartments and to initiate a dialogue and a working network between Eastern European countries in the field of radon, in order to make joint applications under the European Commission, as well as the National Radon Programmes.

Secondary objectives of the Symposium: to raise awareness of the economic environment (especially in building materials and construction) on the development and implementation of remedial techniques (Radon Mitigation) in homes with elevated levels of radon and to raise awareness in society regarding the impact population exposure to radon and associated health effects.

The manifestation is itinerant and will take place with a periodicity of 2 years.

The event will take place with the support of The National Authority for Scientific Research/ Autoritatea Na•ional• pentru Cercetare •tiin•ific• (ANCS).

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First East European Radon Symposium
(FERAS 2012)

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Faculty of Environmental Science & Engineering
30 Fantanele Street, 400294
Cluj-Napoca, Romania

SCIENTIFIC PROGRAMME

&

BOOK OF ABSTRACTS

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PERFORMANCE OF DIFFERENT PASSIVE DETECTORS AT LOW-LEVEL RADON CONCENTRATION COMPARED WITH ACTIVE INSTRUMENT

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For several experiment it is important to have the indoor space with the almost constant low-level radon concentration with the minimum daily and seasonally variations, i.e., low-level radon calibration chamber. The underground low-level laboratory at the Institute of Physics, Belgrade, Serbia, has the special designed system for radon reduction which provides average indoor radon concentration of about 13(5) Bqm^{-3} [1]. Also, the radon time-series analysis in the laboratory shows relative small diurnal and seasonal variability [2]. The indoor radon measurements have several standard procedures world-wide. The uncertainty in the all radon measurements increases when the indoor radon concentrations decreases. In the case of the low-level radon concentration (below 20 Bq m^{-3}) there are many radon detectors with the detection limit in that range. This work deals with the results of the simultaneous indoor radon measurements both by active method, i.e., short-term measurment and by passive method and SSNTDs i.e., long-term measurements in the underground low-level laboratory. In addition the aim of this work is to compare sensitivity of several passive devices (TASTRAK-CR 39 detectors, supplied by Italian National Institute of Health, RADUET passive discriminative detector for radon and thoron from National Institute for Radiological Sciences, Chiba, Japan and Direct Radon and Thoron progeny sensors. The short-term measurements were performed by continuous radon monitor device Sun Nuclear, Model 1029. The measurements by both methods (active and passive) were conducted over one year, from October 2010 to October 2011. SSNTDs were deployed in two consecutive six-month periods, whereas the radon monitor device has been performed with a discrete sampling time (T=4 h) within the same measuring period as passive devices.

[1] A. Dragić, V. Udovičić, R. Banjanac, D. Joković, D. Maletić, N. Veselinović, M. Savić, J. Puzović, I.V. Aničin. The new set-up in the Belgrade low-level and cosmic-ray laboratory. Nuclear Technology and Radiation Protection Vol. XXVI, No. 3, 181-192, (2011)

[2] V. Udovičić, I. Aničin, D. Joković, A. Dragić, R. Banjanac, B. Grabež, N. Veselinović: Radon Time-Series Analysis in the Underground Low-Level Laboratory in Belgrade, Serbia. Radiation Protection Dosimetry 145 (2-3), 155-158, (2011)

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CONTINUAL RADON CONCENTRATION MEASUREMENTS IN SCHOOLS OF BANJA LUKA CITY, REPUBLIC OF SRPSKA

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Continual radon concentration measurements in 20 elementary schools in Banja Luka city was performed during the year 2011/12. Measurements lasted 7 days in each school while data sampling was set to be every 2 hours using RAD7 - continual radon measuring instrument. Sampling unit was placed mostly in teacher`s rooms. Geographical data for every school was obtained using GPS. Regarding each school, average and temporal variations of radon concentrations are analysed taking into consideration local geology, building material and meteorological conditions. Influence of forced ventilation caused by frequently door and window opening during working hours with typical dawn and weekend peaks is evident in most but not all schools. Elevated levels of radon concentration (>400 Bq) were found in a few schools which indicates the need for further long term monitoring using both, passive and active methods.

Key words: Indoor radon, elementary schools, RAD 7, Banja Luka city, Republic of Srpska