Contribution ID: **445** Type: **Poster**

Short-term variations of the 7Be wet deposition in the eastern part of the Czech Republic

Tuesday, 13 May 2014 17:15 (1h 30m)

7Be is a natural radioisotope (half-life 53.3 d) produced in cosmic-ray spallation processes on atmospheric nitrogen and oxygen. We sampled individual rain events (September 2013 –March 2014) in a collector (1 m above the roof of the Technical University of Ostrava) and simultaneously collected relevant meteorological data from the station on the same roof. Rain samples were filtered and the 7Be content in collected water was determined by gamma spectrometry. We studied the correlation between the 7Be wet deposition and precipitation amount, precipitation intensity, elapsed time between individual rain events, cloud types and the air-born-dust PM10 and PM2.5 concentrations before and after the individual rain events [1] and tested the models proposed in the literature [2,3].

[1] Czech Hydrometeorological Institute, Data sets from the PM10 and PM2.5 monitors in the Moravian-Silesian region.
[2] Caillet S., Arpagaus P., Monna F., Dominik J., J. Environ. Radioact. 53 (2001) 241.
[3] Ayub J.J., di Gregorio D.E., Huck H., Velasco H., Rizzotto M., The Natural Radiation Environment: 8th International Symposium, AIP Conference Proceedings, Vol. 1034 (2008) 107.

Primary author: KOLIČOVÁ, Petra (Technical University of Ostrava)

Co-authors: ALEXA, Petr (Technical University of Ostrava); UHLÁŘ, Radim (Technical University of Ostrava)

Presenter: KOLIČOVÁ, Petra (Technical University of Ostrava)

Session Classification: Poster Session - Radionuclides in the Environment, Radioecology

Track Classification: Radionuclides in the Environment, Radioecology