



Contribution ID: 332

Type: Poster

Naturally existing ²¹⁰Po in human and dog hair samples

Monday, 19 April 2010 11:45 (20 minutes)

More than 100 samples of human hair and 15 samples of dog fur were collected from Pomeranian area for polonium analysis. The ²¹⁰Po concentration in analyzed hair samples ranged from 0.33 ± 0.02 to 12.84 ± 0.80 mBq.g⁻¹ dw (mean value is 3.41 mBq.g⁻¹ dw).

The highest ²¹⁰Po activity values were found in hair sample collected from men had rich fish diet and smoked about 20 cigarettes per day. The lowest ²¹⁰Po concentration was found in hair sample collected from a lady who did not consume fish and did not smoke cigarettes. The lowest amounts were also found in children's hair (0.43 ± 0.03 and 0.84 ± 0.08 mBq.g⁻¹ dw) who did not eat much fish and lived at homes free of cigarettes. In the case of a child living at home where exposed at cigarettes this concentration was much higher 4.02 ± 0.37 mBq.g⁻¹ dw.

Among dogs fur the highest ²¹⁰Po concentration was found in 7 years old dachshund dog – 4.48 ± 0.54 mBq.g⁻¹ dw, but the lowest ²¹⁰Po concentration was found in 3 years old staffordshire bull terrier bitch 1.96 ± 0.26 mBq.g⁻¹ dw.

The authors would like to thank to the Ministry of Sciences and Informatics for the financial support under grant DS/8460-4-0176-10.

Primary authors: Prof. SKWARZEC, Bogdan (University of Gdańsk); Dr STRUMIŃSKA-PARULSKA, Dagmara (University of Gdańsk)

Co-author: Dr BORYŁO, Alicja (University of Gdańsk)

Presenter: Dr STRUMIŃSKA-PARULSKA, Dagmara (University of Gdańsk)

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

Track Classification: Radionuclides in the Environment, Radioecology