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210Po and 210Pb in fur of domestic animals

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The aim of the study was to determine 210Po and 210Pb in fur samples collected from 15 breeds of dogs Canis familiaris living in the northern Poland.
The average values of analyzed radionuclides in analyzed dog fur ranged from 0.46±0.02 mBq·g-1 to 15.05±1.13 mBq·g-1 for 210Po and from 0.31±0.03 mBq·g-1 to 9.82±0.53 mBq·g-1 for 210Pb. The highest activities of 210Po and 210Pb were measured for small long-haired dog Maltese while the lowest in small long-haired Yorkshire terrier and Poodle toy. The values of the 210Po/210Pb activity ratio were calculated from 0.82±0.09 for Yorkshire terrier to 5.16±0.45 for Bolognese.
Generally, both 210Po and 210Pb radioisotopes accumulation did not depend on dog sex. Higher values of 210Po and 210Pb were found in long and rough-haired dogs. Further, our experiments showed the hair from dogs living in villages contained more 210Pb than dogs living in the cities and dogs eating dry food accumulate more 210Po in their hair in comparison to fresh or mixed food eating dogs.
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